

CHAPTER - 6

INTERPRETATION AND DATA ANALYSIS

According to Myers, “financial statement analysis is largely a study of relationship among the various financial factors in business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements” Thus, “analysis of financial statements refers to the treatment of information contained in the financial statement in a way so as to afford a full diagnosis of the profitability and financial position of the firm concerned. And the process of analyzing financial statements involves the rearranging, comparing and measuring the significance of financial and operating data. Such a step helps to reveal the relative significance and effect of items of the data in relation to the time period and/or between two organizations.”⁸⁹ Interpretation, which follows analysis of financial statements, is an attempt to reach to logical conclusion regarding the position and progress of the business on the basis of analysis. Thus, analysis and interpretation of financial statements are regarded as complimentary to each other.

Analysis of selected SMEs in Maharashtra

A) Manufacturing Sector

1. Bajaj Healthcare Ltd
2. Filtra consultants & engineers ltd
3. Ganga pharmaceuticals ltd
4. Valiant organic ltd
5. Patdiam jewellery ltd

B) Service Sector

1. DRA Consultants Pvt Ltd
2. Suyog Telematics ltd
3. Comfort Commotrade ltd
4. Jupiter info media ltd

5. Cawasji Behramji Catering services Ltd
6. Mitcon Consultancy & Engineering Services Ltd
7. Creative Peripherals and Distribution Limited

6.1 ANALYSIS OF PERFORMANCE OF LIQUIDITY MANAGEMENT OF THE SELECTED SMES OF MANUFACTURING AND SERVICE SECTOR IN MAHARASHTRA

In this section, an attempt has been made to analyze liquidity management of the selected SMEs of Manufacturing and service sector in Maharashtra during the study period from 2010-11 to 2014-15

Liquidity Management

According to Anthony and Reece, “Liquidity refers to the company’s ability to meet its current obligations. They further stated that ‘solvency’ on the other hand, pertains to the company’s ability to meet the interest costs and repayment schedules associated with its long term obligations. A company’s short-term liquidity risk is affected by the timing of cash inflows and outflows along with its prospects for future performance. The short-term is conventionally viewed as a period up to one year, though it is identified with the normal operating cycle of a company.”⁹⁰

6.1.1 Current Ratio

Table - 6.1.1 : A) Current Ratio of Manufacturing SMEs during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	0.87	0.85	0.85	0.87	0.94	0.88	0.04
Filtra consultants & engineers ltd	1.27	1.40	2.06	1.73	1.58	1.61	0.31
Ganga pharmaceuticals ltd	1.22	3.70	3.67	2.16	1.94	2.54	1.11
valiant organic ltd	2.52	1.59	1.66	2.08	3.01	2.17	0.60
Patdiam jewellery ltd	1.70	1.87	1.74	1.65	1.83	1.76	0.09
AVG	1.51	1.88	2.00	1.70	1.86		

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Table 6.1.1. A) highlights the values of current ratios during the study period from 2010-11 to 2014-15. It reveals that there exists fluctuating trends in the values of the Current Ratio .It

can be observed that selected SMEs have healthy liquidity conditions. Selected SMEs are solvent in short term.

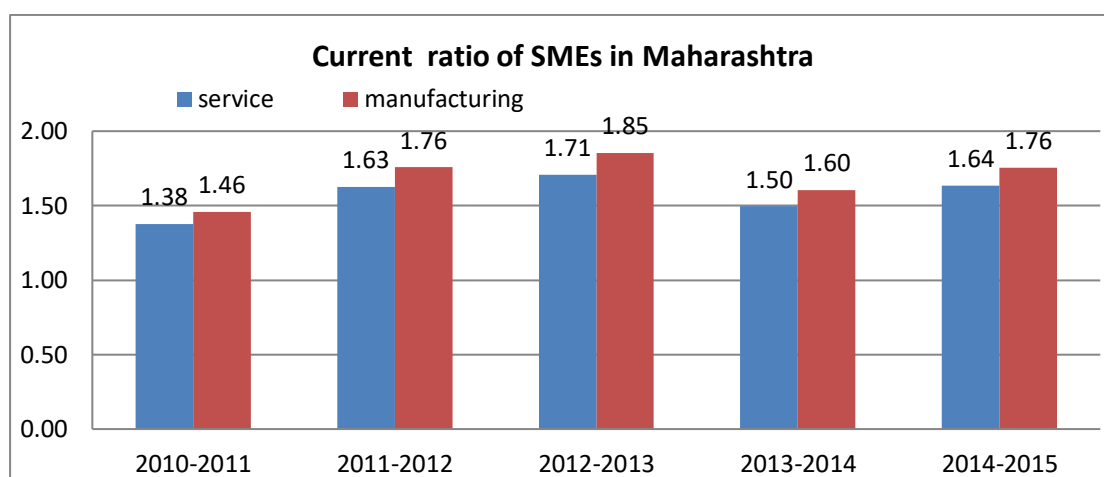
Table - 6.1.1 : B) Current Ratio of Service SMEs during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	0.87	0.85	0.85	0.87	0.94	0.88	0.04
Suyog Telematics Ltd	1.27	1.40	2.06	1.73	1.58	1.61	0.31
Comfort Commotrade Ltd	1.22	3.70	3.67	2.16	1.94	2.54	1.11
Jupiter info media ltd	2.52	1.59	1.66	2.08	3.01	2.17	0.60
Cawasji Behramji Catering services Ltd	1.70	1.87	1.74	1.65	1.83	1.76	0.09
Mitcon Consultancy & Engineering Services Ltd	1.18	1.13	1.14	1.14	1.25	1.17	0.05
Creative Peripherals and Distribution Limited	0.90	0.84	0.84	0.85	0.91	0.87	0.03
AVG	1.38	1.63	1.71	1.50	1.64		

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

DRA Consultant PVT ltd. and Creative Peripherals and Distribution Ltd have average current ratio 0.88 and 0.87 respectively. Current ratio of Suyog Telematics ltd indicates increasing trend from 1.27 in 2010-2011 to 1.58 in the year 2014-15. There is exorbitant amount of cash in hand in current assets of comfort commotrade ltd which has lead to an increase in current assets which further lead to an improvement of current ratio. Jupiter info media ltd , Cawasji Behramji catering service ltd shows fluctuating trend of current ratio during the study period.

Figure-6.1 Average Current Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

In the study period 2010-2011 to 2014-2015, the average current ratio of manufacturing sector is in the range of 1.46 to 1.85. The average current ratio of SMEs in Service sector is

within the range of 1.46 to 1.85 in the study period. SMEs in manufacturing sector have higher current assets than current liabilities as a result of greater proportion of inventory.

6.1.2 Quick Ratio

Table - 6.1.2 : A) Quick Ratio of Selected SMEs of Manufacturing sector in Maharashtra during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	0.55	0.61	0.66	0.64	0.72	0.64	0.06
Filtra consultants & engineers ltd	0.99	1.08	1.46	1.07	1.09	1.14	0.16
Ganga pharmaceuticals ltd	0.80	1.93	1.88	1.08	1.08	1.35	0.46
valiant organic ltd	1.86	1.25	1.06	1.59	2.49	1.65	0.50
Patdiam jewellery ltd	1.16	1.28	1.10	1.09	1.19	1.16	0.07
AVG	1.07	1.23	1.23	1.09	1.31	1.19	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

It reveals that there are fluctuating trends in the values of its Quick Ratio. It can be observed that selected SMEs have healthy liquidity conditions. Selected SMEs are solvent in short term. Quick ratio of selected SMEs shows the increasing trend from the year 2010-2011 to 2015-2016. Almost all selected SMEs reveal short term solvent as the average quick ratio is higher. Valiant Organic Ltd has the highest quick ratio 1.65 times followed by Ganga pharmaceutical Ltd 1.35 times, Filtra consultant & engineers Ltd 1.14 times.

Table - 6.1.2 : B) Quick Ratio of Selected SMEs of Manufacturing sector in Maharashtra during the study period from 2010-11 to 2014-15

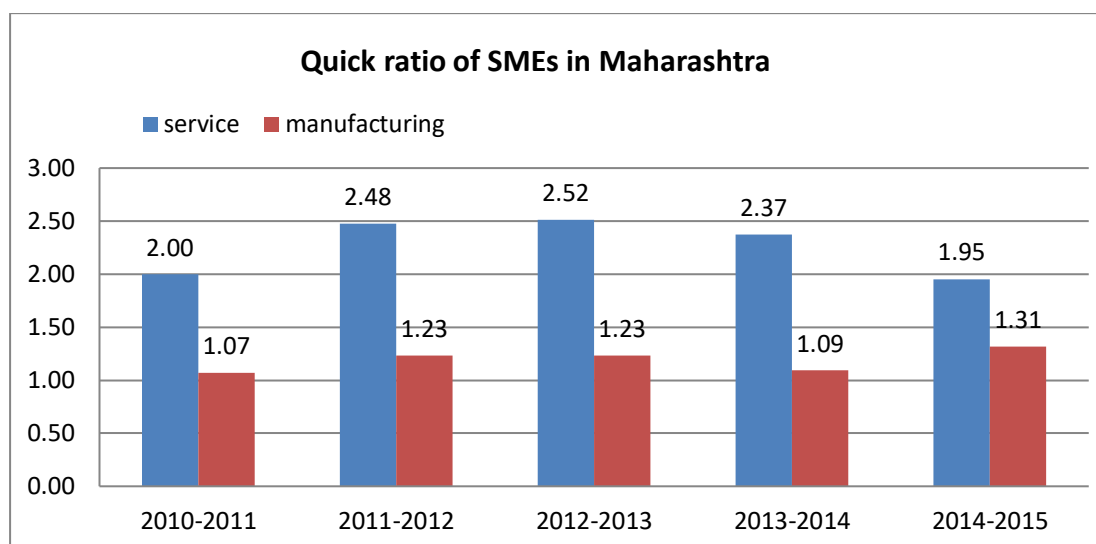
Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	2.74	1.76	2.31	2.69	2.01	2.30	0.38
Suyog Telematics Ltd	1.07	0.77	0.44	0.46	1.29	0.80	0.34
Comfort Commotrade Ltd	3.03	5.60	1.43	2.66	1.76	2.90	1.47
Jupiter info media ltd	1.70	1.92	3.19	0.53	0.79	1.63	0.94
Cawasji Behramji Catering services Ltd	1.04	1.11	1.08	1.08	1.01	1.06	0.04
Mitcon Consultancy & Engineering Services Ltd	3.63	5.61	8.38	8.42	5.86	6.38	1.82
Creative Peripherals and Distribution Limited	0.77	0.57	0.77	0.76	0.95	0.76	0.12
AVG	2.00	2.48	2.52	2.37	1.95	2.26	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Quick ratio is the Acid test ratio of short term solvency. The average quick ratio of DRA consultancy Pvt Ltd has a fluctuating tendency. Suyog Telematics Ltd has an average ratio of 0.80 times, which is lower than the standards. Comfort commotrade Ltd and Jupiter info media Ltd have a decreasing trend over the study period. Cawasji Behramji catering services Ltd has the average quick ratio of 1.06 times. The highest quick ratio, 6.38 times, is of Mitcon consultancy & engineering services Ltd. The lowest quick ratio, 0.76 times, is of Creative Peripherals and Distribution Limited.

distribution ltd ,short term liquidity i.e quick liabilities are more than quick asset over the study period.

Figure-6.2:Average Quick Ratio Of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

SMEs of Manufacturing sector have quick ratio in the range between 1.95 to 2.52 times during the study period. SMEs in service sector have a quick ratio in the range of 1.07 to 1.31 times during the study period. Quick ratio in Service sector SMES are higher than service sector, this indicates higher liquidity is maintained in service sector SMEs than Manufacturing sector SMEs.

6.1.3 Cash to Current Asset ratio

“This is general perception that increase in sales leads to increase in cash balances. Generally, the volume of sales and size of cash balances in a business unit have a positive correlation. According to Prof. John Sagan ,The increase in sales is generally associated with larger bank balances.”⁹¹

Table - 6.1.3 : A) Cash to Current Asset ratio of Selected SMEs of Manufacturing sector in Maharashtra during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	0.22%	0.88%	0.27%	1.39%	1.10%	0.77%	0.005
Filtra consultants & engineers ltd	17.96%	18.26%	20.66%	16.79%	19.04%	18.54%	0.013
Ganga pharmaceuticals ltd	4.13%	2.46%	8.88%	7.74%	8.54%	6.35%	0.026
valiant organic ltd	20.91%	20.47%	4.39%	4.39%	7.98%	11.63%	0.075
Patdiam jewellery ltd	1.63%	4.08%	10.59%	0.56%	1.70%	3.71%	0.036
AVG	8.97%	9.23%	8.96%	6.17%	7.67%	8.20%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Cast to current assets ratio talks about the proportion of cash in the total current assets held by the entity. The more cash in hand, higher the liquidity of the firm. At the same time higher cash in hand poses a threat of unused funds held with the company. As seen from the table there are two companies whose cash to current assets ratio is greater than 10%. This will cause the funds to become idle and gradually fewer investments in fixed assets may lead to lower profitability in the future years. Company wise analysis indicates that the average percentages of cash to total current assets for Bajaj healthcare, Ganga pharmaceutical ltd, Patdiam jewellery ltd is 0.77 ,6.35 ,3.71 percent respectively which is lower than the average 8.20 percent . Filtra consultant & engineers ltd and Valiant organic ltd maintains cash percent of current asset more than the average i.e 18.54 and 11.63 percent.

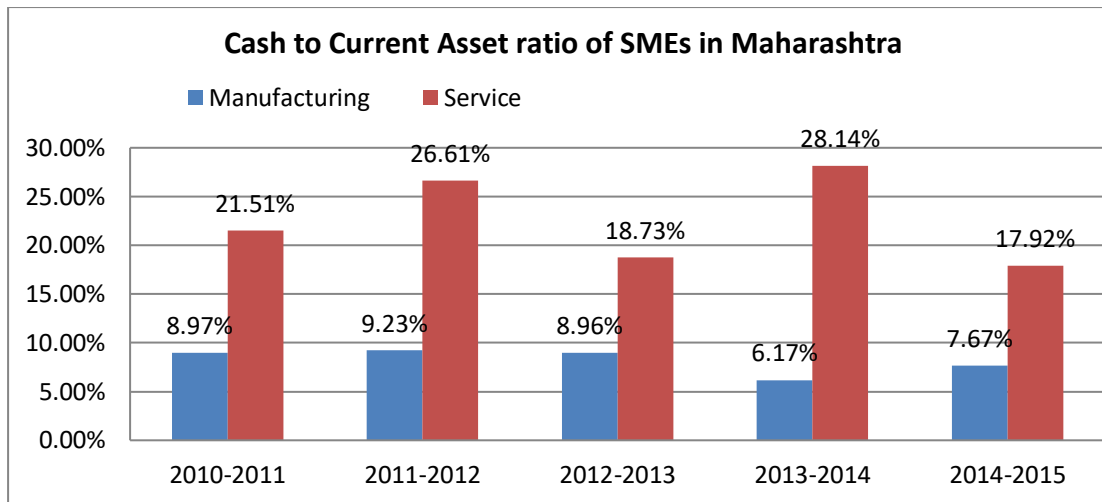
Table - 6.1.3 : B) Cash to Current Asset ratio Of Selected SMEs of Service sector in Maharashtra during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	23.93%	1.29%	5.49%	14.13%	3.27%	9.62%	0.08
Suyog Telematics Ltd	2.25%	1.03%	0.74%	5.16%	1.45%	2.13%	0.02
Comfort Commotrade Ltd	57.95%	93.78%	74.23%	87.85%	54.03%	73.57%	0.16
Jupiter info media ltd	8.24%	26.89%	7.74%	12.64%	20.14%	15.13%	0.07
Cawasji Behramji Catering services Ltd	1.31%	7.15%	9.61%	10.06%	9.43%	7.51%	0.03
Mitcon Consultancy & Engineering Services Ltd	51.46%	50.52%	28.95%	62.27%	30.26%	44.69%	0.13
Creative Peripherals and Distribution Limited	5.41%	5.59%	4.32%	4.89%	6.87%	5.42%	0.01
AVG	21.51%	26.61%	18.73%	28.14%	17.92%	22.58%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

DRA consultant shows drastic decrease of cash component in current asset ,in 2010-2011 it was 23.93 percent and decrease to 3.27 percent in the year 2014-2015. Suyog Telematics ltd maintains very low cash ,i.e 2.13 percent .comfort commotrade ltd has the highest cash to current asset,the average is 73.7 percent followed by Mitcon consultancy and engineering ltd i.e 43 percent.

Figure-6.3 Average cash to Current Asset Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Manufacturing sector SMEs have lower cash to current asset ratio than Service sector. The average of Manufacturing sector broadly lies within the range of 6 percent to 10 percent wherein the service sector within 17 percent to 29 percent.

6.1.4 Current Assets to Total Asset Ratio

“There is no such standard for proportion of investment in current assets and fixed assets. Therefore, reaching to adequate liquidity and profitability is a challenge. Though, it can be achieved with the past experience of company’s performance. Moreover, less but adequate investment in current assets enables firms to have a fair liquidity position as well as a better profitability.”⁹²

Table - 6.1.4 : A.) Current asset to total asset ratio Of Selected SMEs of Manufacturing sector in Maharashtra during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	51.71%	51.52%	54.58%	59.47%	54.36%	54.33%	0.02872
Filtra consultants & engineers ltd	96.26%	95.30%	90.71%	93.70%	94.31%	94.06%	0.018858
Ganga pharmaceuticals ltd	49.70%	46.65%	43.61%	43.89%	43.96%	45.56%	0.023443
valiant organic ltd	47.01%	43.46%	48.78%	45.75%	35.13%	44.03%	0.04772
Patdiam jewellery ltd	85.38%	84.47%	87.32%	89.16%	89.82%	87.23%	0.020711
AVG	66.01%	64.28%	65.00%	66.39%	63.52%	65.04%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Shows percentage of current assets to total assets used to achieve the given sales. As per current assets investment policy, it is found that Filtra consultant & engineers ltd ,Patdiam jewellery ltd had enough liquidity ,average current asset to total asset is 94.06 percent and 87.23 percent respectively. And Bajaj healthcare ltd have maintained average of 54.36 percent. Ganga pharmaceuticals ltd have also maintained average of 45.56 percent during study period. Valiant organic ltd have fluctuating current asset to total to asset ratio ,in the year 2010-2011 it was 47 percent which have decrease to 35 percent, this is due to decrease in inventory .

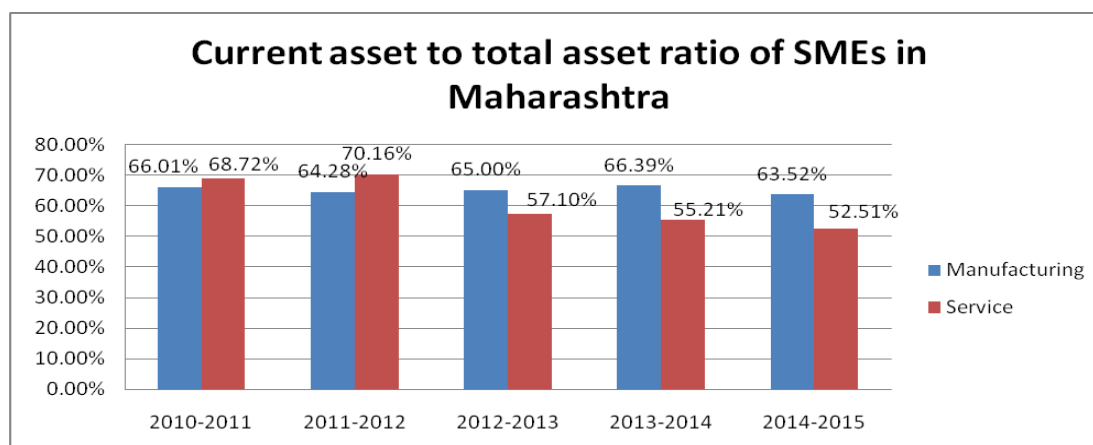
Table - 6.1.4 : B) Current asset to total asset ratio (CATAR) Of Selected SMEs of Service sector in Maharashtra during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	63.38%	87.95%	85.59%	79.85%	53.22%	74.00%	0.134715
Suyog Telematics Ltd	80.26%	48.48%	32.40%	23.18%	37.26%	44.32%	0.197357
Comfort Commotrade ltd	79.28%	80.49%	8.45%	16.48%	16.34%	40.21%	0.325279
Jupiter info media ltd	15.12%	18.52%	6.77%	4.60%	2.74%	9.55%	0.061657
Cawasji Behramji Catering services Ltd	81.24%	88.56%	92.30%	94.64%	93.78%	90.10%	0.048934
Mitcon Consultancy & Engineering Services Ltd	63.90%	69.23%	75.78%	68.87%	65.10%	68.58%	0.04158
Creative Peripherals and Distribution Limited	97.86%	97.86%	98.38%	98.83%	99.12%	98.41%	0.00508
AVG	68.72%	70.16%	57.10%	55.21%	52.51%	60.74%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Jupiter infomedia Ltd has the average current asset to total asset ratio is 0 .17 which is the lowest among all selected SMEs as it depicts the lowest investment in working capital. Creative peripherals & distribution Ltd has maximum investment of 0.94.Comfort common trade CATAR shows huge fluctuation .Above table reveals that selected SMES has maximum investment in working capital.

Figure-6.4 Average Current Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

“Low percentage of current assets to total assets indicates aggressive working policy that means liquidity and more profitability while risk of insolvency is high, and high percentage of current assets to total assets indicates excessive investment in current assets and it is considered as conservative policy of working capital.”⁹³ SMEs follow conservative policy of working capital.

6.1.5 Liquid assets to Current Assets Ratio

Table - 6.1.5 : A) Liquid assets to Current Assets Ratio of Selected SMEs of Manufacturing sector during the study period from 2010-11 to 20115

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	63.09%	71.51%	77.27%	73.17%	77.20%	72.45%	0.05
Filtra consultants & engineers ltd	77.56%	76.89%	70.56%	62.12%	69.17%	71.26%	0.06
Ganga pharmaceuticals ltd	65.47%	52.28%	51.28%	50.12%	55.53%	54.94%	0.06
valiant organic ltd	73.81%	79.02%	63.84%	76.36%	82.80%	75.17%	0.06
Patdiam jewellery ltd	68.48%	68.50%	63.50%	65.77%	65.23%	66.30%	0.02
AVG	69.68%	69.64%	65.29%	65.51%	69.98%	68.02%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Bajaj Healthcare ltd has average 72.45 percent liquidity out of total current asset, 27.55 percent is secured by inventory. Filtra consultant & engineers ltd indicates decreasing trend of liquid asset to current asset ratio from 77.56 percent in 2010-2011 to 69.17 percent in 2014-2015. Ganga pharmaceutical ltd has fluctuating trend within the range of 65 percent to 55.53 percent during study period. Valiant organic ltd has the highest average 75.17

percent. Patdiam jewellery ltd has average 66.30 percent which is lower to the industry average of 68.02 percent.

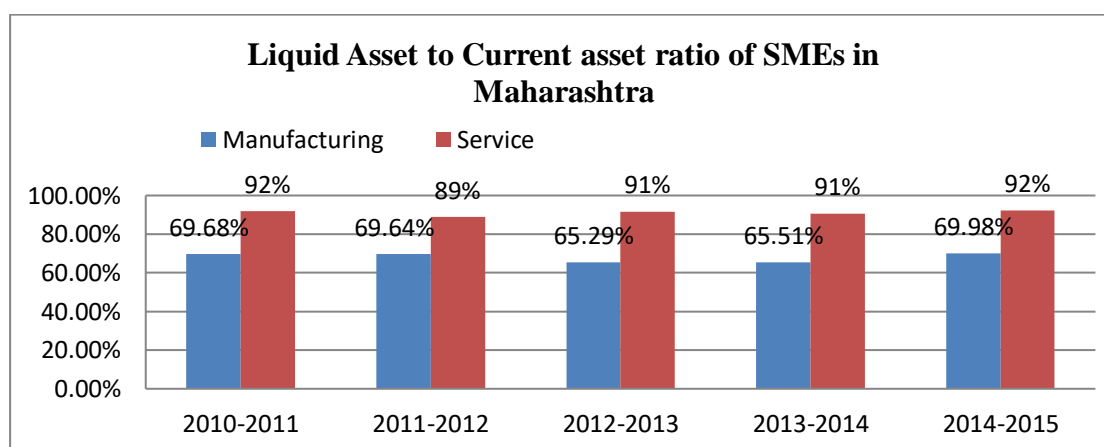
Table - 6.1.5 : B) Liquid assets to Current Assets Ratio of Selected SMEs of Service sector during the study period from 2010-11 to 20115

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	100%	100%	100%	100%	100%	100%	0.000
Suyog Telematics Ltd	91%	85%	95%	91%	95%	91%	0.039
Comfort Commotrade ltd	100%	100%	100%	100%	100%	100%	0.000
Jupiter info media ltd	100%	100%	100%	100%	100%	100%	0.000
Cawasji Behramji Catering services Ltd	99%	96%	89%	90%	89%	93%	0.043
Mitcon Consultancy & Engineering Services Ltd	99%	99%	99%	100%	100%	99%	0.003
Creative Peripherals and Distribution Limited	53%	42%	57%	54%	62%	54%	0.067
AVG	92%	89%	91%	91%	92%	91%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

From the viewpoint of liquid asset to current assets ratio, the efficiency of inventory management on financial performance is best for the DRA consultants pvt ltd, Comfort commontrade ltd and Jupiter info media ltd for its highest average value. Mitcon consultancy and distribution ltd have 99 percent followed by Cawasji Behramji catering services ltd 93 percent, Suyog telematics ltd 91 percent. Creative peripherals and distribution and distribution ltd has average of 54 percent of its current asset .

Figure-6.5 Average Liquid Asset to Current asset ratio Of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Liquid asset to current asset is in the range of 89 percent to 92 percent in Service sector in Maharashtra during 2010-2011 to 2014-2015. In manufacturing sector, the range is between 89 percent to 92 percent during 2010-2011 to 2014-2015.

6.2 ANALYSIS OF PERFORMANCE OF WORKING CAPITAL MANAGEMENT OF THE SELECTED SMES OF MANUFACTURING AND SERVICE SECTOR IN MAHARASHTRA

In this section, an attempt has been made to analyze **Working capital management** of the selected SMEs of Manufacturing and service sector in Maharashtra during the study period from 2010-11 to 2014-15

Working capital Management-Efficient working capital management is important from the point of view of both the liquidity and profitability. Profitability and inefficient working capital Working capital management means funds are unnecessarily tied up in idle funds. This reduces the liquidity as well as the ability to invest funds in productive asset thus affecting the profitability. Keeping in view the importance of working capital management, the financial manager should look into the framing of a suitable working capital policy of his firm:

6.2.1 Working Capital Turnover Ratio

This ratio reflects the extent to which a business is operating i.e., a small or a large amount of working capital in relation to sales. J.Batty chalks out the limits of the ratio and suggests that, "a normal ratio between sales and working capital should be established which is neither too high nor too low".⁹⁴The ratio is computed to study over-trading or under-trading. A very high ratio may be the result of over-trading. Over trading is indicated by an increase in the amount of sales without corresponding increase in the amount of working capital. On the other hand a very low ratio may be the result of under-trading which means that more working capital funds have been invested in the business than needed.

Table - 6.2.1 : A)Working capital turnover Ratio of Selected SMEs of Manufacturing sector during the study period from 2010-11 to 20115

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	-15.02	-13.08	-13.31	-15.97	-41.59	-19.79	10.95
Filtra consultants & engineers ltd	7.95	13.23	8.17	7.00	7.46	8.76	2.27
Ganga pharmaceuticals ltd	4.76	1.29	1.52	2.20	2.35	2.42	1.23
valiant organic ltd	4.38	7.67	5.83	6.27	5.45	5.92	1.07
Patdiam jewellery ltd	3.02	1.69	1.74	1.92	2.62	2.20	0.53
AVG	1.02	2.16	0.79	0.28	-4.74	-0.10	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

"Working capital turnover ratio in SMES for the study period is shown in table. In almost all the selected the ratio showed a fluctuating trend. it varied from 7.95 times in 2010-2011 to 7.46 in 2014-15 in Filtra consultant and engineers ltd, from 4.76 times in 2010-2011 to 2.35 times in 2014-15, Valiant organic ltd shows the increasing trend from 4.38 times to 5.45 times. Only Bajaj Healthcare ltd has negative working capital turnover ratio over the study with increasing trend which is due to working capital is negative in this unit.

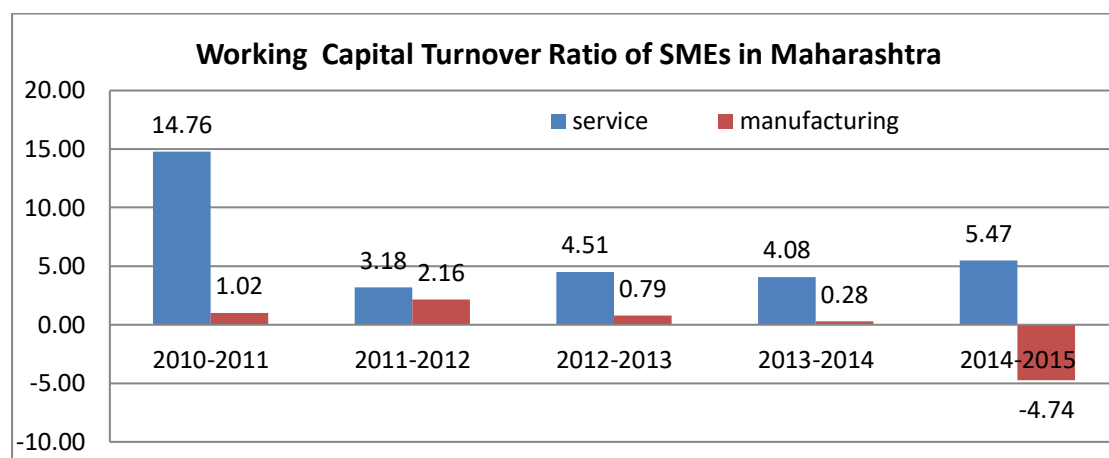
Table - 6.2.1 : B)Working capital turnover Ratio of Selected SMEs of Service sector during the study period from 2010-11 to 20115

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	3.90	3.01	1.96	1.80	4.53	3.04	1.07
Suyog Telematics Ltd	4.33	-17.90	-1.19	-1.96	5.09	-2.33	8.29
Comfort Commotrade ltd	2.07	0.74	5.02	1.88	3.64	2.67	1.49
Jupiter info media ltd	6.03	3.23	2.09	-1.98	-5.02	0.87	3.91
Cawasji Behramji Catering services Ltd	68.27	15.84	11.50	10.71	12.03	23.67	22.37
Mitcon Consultancy & Engineering Services Ltd	2.28	1.40	0.67	0.81	1.15	1.26	0.57
Creative Peripherals and Distribution Limited	16.45	15.92	15.02	17.32	16.87	16.32	0.80
AVG	14.76	3.18	5.01	4.08	5.47	6.50	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Working capital turnover ratio of DRA Consultants ltd are fluctuating and inconsistent, in the year 2013-2014 the minimum ratio was 1.96 and 4.53 times in the year 2014-2015. In Suyog telematics ltd working capital turnover ratio is negative due to negative working capital and in the year 2014-2015 it shows the highest ratio 45.09 times. Comfort commotrade ltd indicates increasing trend. Jupiter info media ltd in the year 2013-2014 has negative 1.98 times and negative 5.02 in the year 2014-2015, in these years' short term liabilities have increased which resulted to negative working capital. Cawasji Behramji catering services ltd has the highest deviation during study period. Mitcon consultancy and engineering service ltd has fluctuating ratio with minimum standard deviation of 0.57. Creative peripheral and distribution ltd has average working capital turnover ratio 16.32 times.

Figure-6.6 Average Working Capital Turnover Ratio Of Selected SMEs during the study period from 2010-11 to 2014-15



“The working capital turnover ratio shows the relationship between the funds used to finance a company's operations and the revenues a company generates as a result of conducting these operations. A higher working capital turnover ratio indicates that a company generates a higher the amount of sales for every rupee of the working capital used.”⁹⁵ Above table shows Fluctuating and displays the lack of consistency, this is majorly due to fluctuating working capital.

6.2.2 Sales to Current Asset

The sales to current assets ratio is a financial estimate that can help to determine how efficiently a company is making use of its current assets to generate revenue.

Table - 6.2.2: A) Sales to Current assets of Selected SMEs of Manufacturing sector during the study period from 2010-11 to 2014-15

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	2.24	2.26	2.39	2.37	2.75	2.40	0.18
Filtra consultants & engineers ltd	1.69	3.78	4.21	2.95	2.73	3.07	0.87
Ganga pharmaceuticals ltd	0.84	0.94	1.11	1.18	1.14	1.04	0.13
valiant organic ltd	2.65	2.83	2.33	3.25	3.64	2.94	0.46
Patdiam jewellery ltd	1.24	0.79	0.74	0.76	1.18	0.94	0.22
AVG	1.73	2.12	2.15	2.10	2.29	2.08	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Bajaj Healthcare ltd has increasing trend 2.24 times in 2010-2011 to 2.75 times in 2014-2015. Filtra consultant & engineers ltd have increased tremendously 1.69 in the year 2010-2011 to 2.73 in the year 2014-15. Ganga Pharmaceutical ltd have positively improved from 0.84 in the year 2010-2011 to 1.14 in the year 2014-2015. Valiant organic ltd have positively increased as it is a sign of growth. Patdiam jewellery ltd have fluctuating trend, 1.24 times in 2010-2011, lowest decrease to 0.74 times in 2012-2013 and again improved positively to 1.18 in the year 2014-2015.

Table - 6.2.2 : B) Sales to Current assets of Selected SMEs of Service sector during the study period from 2010-11 to 2014-15

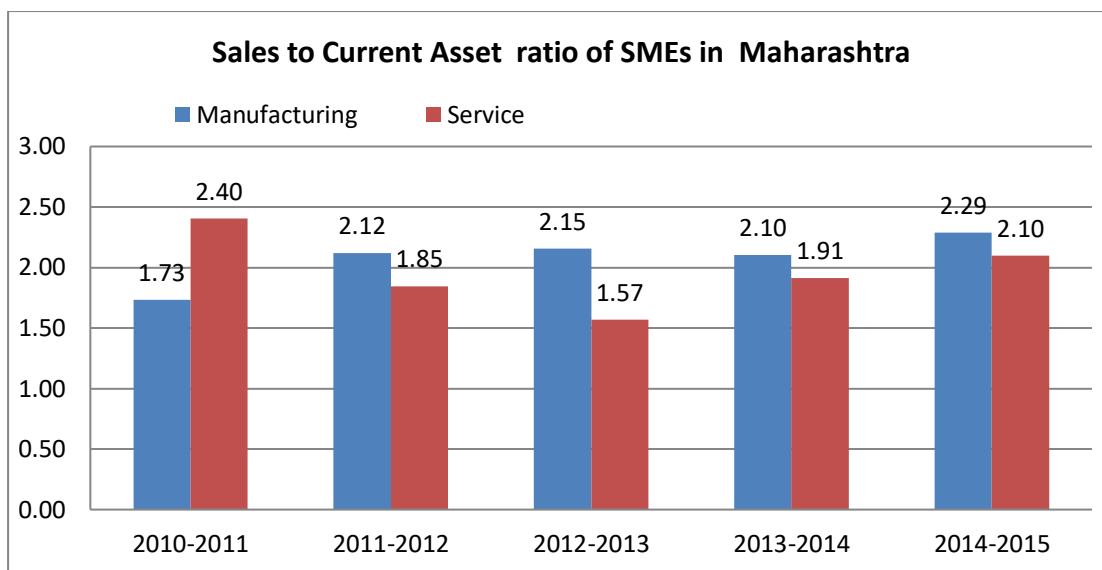
Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	2.48	1.30	1.11	1.13	2.28	1.66	0.594656
Suyog Telematics ltd	0.62	1.85	1.41	1.90	1.35	1.43	0.459787
Comfort Commotrade ltd	1.39	0.61	0.47	1.17	1.57	1.04	0.432233
Jupiter info media ltd	2.48	1.55	1.44	1.76	1.33	1.71	0.40998
Cawasji Behramji Catering services Ltd	3.01	2.22	2.07	1.80	1.42	2.10	0.527386
Mitcon Consultancy & Engineering Services Ltd	1.66	1.15	0.59	0.71	0.96	1.01	0.37613
Creative Peripherals and Distribution Limited	5.19	4.25	3.91	4.92	5.78	4.81	0.667434
AVG	2.40	1.85	1.57	1.91	2.10	1.97	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

The table shows the relationship of sales to current asset. It represents the share of sales that the entity uses for its working capital management. It is evident from the table that on an average, more than 50% of the sales are being used for working capital requirements.

Creative Peripherals ltd has the highest ratio of 4.8 times, followed by Cawasji Behramji catering services ltd is 2.10. DRA consultant ltd, Suyog Telematics ltd, Comfort Commotrade, Jupiter Infomedia ltd and Mitcon Consultancy and engineering ltd lies within the range of 1 to 2 times.

Figure-6.7 Average Sales to Current Asset ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

“In general terms, when the value of the sales to current asset ratio is high, a company is supporting its business income with very few assets.”⁹⁶In case of Manufacturing sector, SMEs displays the growing trend .In case of service sector, sales to turnover displays the lack of consistency.

6.2.3 Debtors Turnover Ratio

“This ratio is very helpful when used in conjunction with short term solvency ratios i.e., current ratio and quick ratio. Short term solvency ratios measure the liquidity of the company as a whole and accounts receivable turnover ratio measures the liquidity of accounts receivables.

Analysts can compare the ratio with industry’s standard. Generally, a high ratio indicates that the receivables are more liquid and are being collected promptly. A low ratio is a sign of less liquid receivables and may reduce the true liquidity of the business in the eyes of the analyst even if the current and quick ratios are satisfactory.”⁹⁷

Table - 6.2.3 : A) Debtors turnover ratio (DTR) of SMEs in Manufacturing sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	4.62	4.07	3.83	3.74	4.24	4.10	0.312
Filtra consultants & engineers ltd	2.85	6.47	8.45	9.08	7.90	6.95	2.227
Ganga pharmaceuticals ltd	1.70	2.15	3.58	3.84	3.69	2.99	0.885
valiant organic ltd	5.29	5.16	4.04	4.91	5.11	4.90	0.448
Patdiam jewellery ltd	1.93	1.24	1.43	1.18	1.91	1.54	0.324
AVG	3.28	3.82	4.27	4.55	4.57	4.10	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Baja healthcare ltd has average Debtors turnover ratio 4.10 times with minimum standard deviation of 0.312 .Filtra consultant & engineering ltd has the highest average DTR of approximately 7 times followed by Valiant organic ltd with approximately 5 times and Ganga pharmaceutical ltd approximately 3 times .The lowest DTR is in Patdiam jewellery ltd 1.54 times.

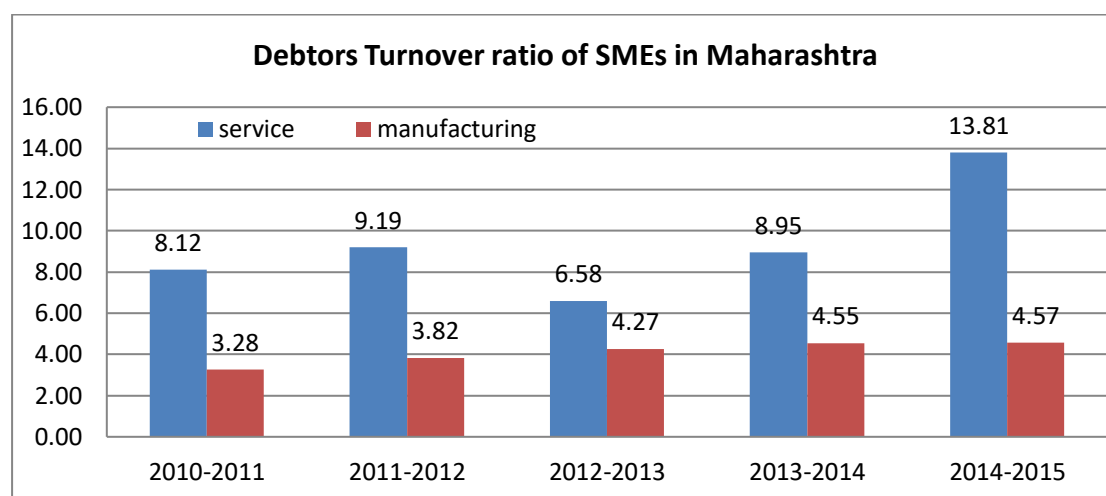
Table - 6.2.3 : B) Debtors turnover ratio of SMEs in Service sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	6.47	1.56	1.42	1.69	3.35	2.90	1.9
Suyog Telematics Ltd	3.53	8.52	5.27	4.93	8.06	6.06	1.9
Comfort Commotrade Ltd	20.33	31.21	18.55	25.82	40.49	27.28	8.0
Jupiter info media ltd	4.90	4.76	6.26	10.77	26.64	10.67	8.3
Cawasji Behramji Catering services Ltd	3.88	2.52	2.93	2.54	1.96	2.76	0.6
Mitcon Consultancy & Engineering Services Ltd	4.98	3.25	2.51	2.75	2.59	3.21	0.9
Creative Peripherals and Distribution Limited	12.78	12.50	9.16	14.15	13.55	12.43	1.7
AVG	8.12	9.19	6.58	8.95	13.81	9.33	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Comfort commotrade ltd has the highest Debtors turnover ratio 27.28 times followed by Creative Peripheral and distribution ltd 12.43 times ,Jupitor infomedia ltd 10.67 times ,Suyog telematics ltd 6 times Mitcon Consultancy & Engineering services ltd 3.21 times .Cawasji Behramji catering services ltd and DRA consultancy pvt ltd have very low debtors turnover ratio of 2.76 times and 2.90 times respectively.

Figure-6.8 Average Debtors Turnover ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Debtors turnover ratio is Conversion of debtors into cash .In case of Service sector SMEs have higher DTR in the range of 8.12 time to 13.81 times .In case of Manufacturing sector , the range is between 3.28 times to 4.57 times .Service sector has higher turnover than manufacturing sector ,it indicates the sign of quick recovery of Debts.

6.2.4 Credit Strength Ratio

From the financial point of view net worth provides credit strength to the business, as a lender (creditors) will invariably examine the net worth of an enterprise to assess the ultimate risk of providing loans. Current liability holder have claim on net worth, though unsecured. This because being unsecured ultimately creditors has to fall back on net worth in case of non payment or bankruptcy of company.⁹⁸

Table - 6.2.4 :A)Credit strength ratio of manufacturing SMEs in Maharashtra

(In terms of times)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	2.18	2.54	3.03	3.33	2.27	2.67	0.45
Filtra consultants & engineers ltd	3.14	2.16	0.80	1.30	1.08	1.69	0.85
Ganga pharmaceuticals ltd	0.85	0.26	0.22	0.40	0.50	0.45	0.23
valiant organic ltd	0.32	0.51	0.59	0.41	0.21	0.41	0.13
Patdiam jewellery ltd	1.02	0.83	1.02	1.18	0.98	1.01	0.11
AVG	1.50	1.26	1.13	1.32	1.01	1.24	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

A credit strength ratio between 1.75 and 2.0 provides a reasonable cover and control against undue advantage of short term credit, without making the firm too conservative.

Bajaj Healthcare ltd credit Strength ratio is higher than the standard desirable dependence on current liabilities .Filtra consultant &engineers ltd is erratic and downward trend. Valiant organic ltd. has least proportion of current liabilities to net worth. Patdiam jewellery ltd has nearby approximately ratio 1 times which reflect balanced use of funds outstanding.

Table - 6.2.4 : B)Credit strength ratio of manufacturing SMEs in Maharashtra

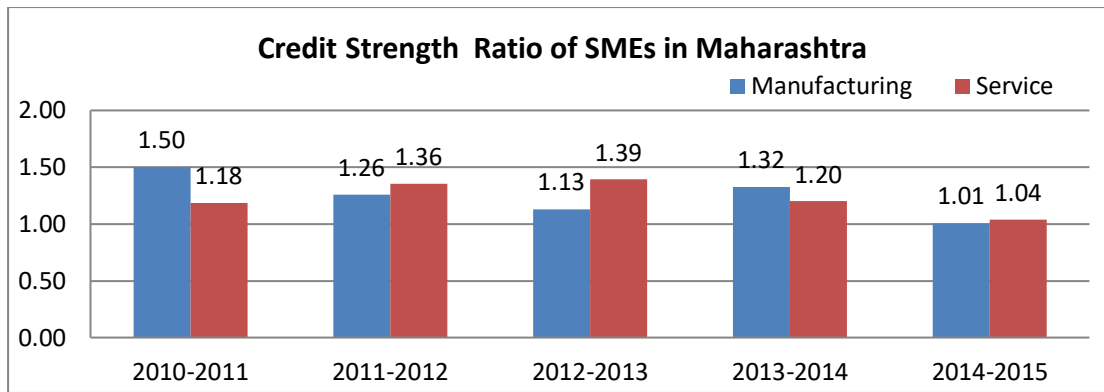
(In terms of times)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	0.34	1.04	0.60	0.43	0.37	0.56	0.29
Suyog Telematics ltd	2.19	1.28	2.42	1.14	0.51	1.51	0.79
Comfort Commotrade ltd	0.35	0.60	0.28	0.27	0.37	0.37	0.13
Jupiter info media ltd	0.10	0.11	0.02	0.10	0.04	0.07	0.04
Cawasji Behramji Catering services Ltd	2.33	3.14	3.16	3.40	3.70	3.15	0.51
Mitcon Consultancy & Engineering Services Ltd	0.19	0.13	0.10	0.08	0.09	0.12	0.04
Creative Peripherals and Distribution Limited	2.77	3.21	3.16	2.96	2.21	2.86	0.40
AVG	1.18	1.36	1.39	1.20	1.04	1.23	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

The average credit strength ratio DRA Consultant pvt ltd is 0.56 .Suyog Telematics ltd has ratio between 0.51 to 2.42 whereas the average ratio is balanced .Comfort commontrade has only 0.37 proportions of current liabilities covering its net worth. Service sector sample SMEs have less dependence on current liabilities which reflects the companies are safe.

Figure-6.9 Average Credit Strength Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

The average Credit to net worth ratio reflects downward and erratic trend in sample SMEs of Maharashtra. Credit strength ratio of Manufacturing sector is in the range of 1.01 times to 1.50 times. Credit strength ratio of Service sector is in the range of 1.04 times to 1.39 times.

6.3 ANALYSIS OF SOLVENCY OF THE SELECTED SMES OF MANUFACTURING AND SERVICE SECTOR IN MAHARASHTRA

Solvency ratios are primarily used to measure a company's ability to meet its long-term obligations. In general, a solvency ratio measures the size of a company's profitability and compares it to its obligations. By interpreting a solvency ratio, an analyst or investor can gain insight into how likely a company will be to continue meeting its debt obligations. A stronger or higher ratio indicates financial strength. In stark contrast, a lower ratio, or one on the weak side, could indicate financial struggles in the future.”⁹⁸

1. Fixed Assets to Long term funds Ratio
2. Debt To Asset Ratio
3. Interest Coverage ratio
4. Degree of Financial Leverage

6.3.1 Fixed Assets to Long Term Funds Ratio

Fixed assets ratio explains whether the company has raised adequate long-term funds to meet its fixed assets requirements. This ratio gives an idea as to what part of the capital employed

has been used in purchasing fixed assets for the concern. If the ratio is less than one, it is good for the concern. The ideal ratio is 0.67.

Net fixed assets: (Total of fixed assets – Total **depreciation** till date) + Trade Investments including shares in subsidiaries.

Long-term funds: Share capital + Reserves + Long-term loans.

Table - 6.3.1 :A) Fixed Assets to long term funds Ratio in Manufacturing sector
(In terms of Percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	83%	96%	117%	122%	107%	105%	0.14
Filtra consultants & engineers ltd	10%	5%	14%	9%	6%	9%	0.03
Ganga pharmaceuticals ltd	21%	14%	16%	16%	16%	17%	0.03
valiant organic ltd	48%	53%	45%	38%	36%	44%	0.06
Patdiam jewellery ltd	18%	17%	15%	14%	11%	15%	0.03
AVG	36%	37%	41%	40%	35%	38%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Solvency represents the ability of the company to meet its obligations over a long term period of time. It is a yardstick to measure the long term financial health of the company.

Fixed Assets to long term funds Ratio should not exceed one as it could be an indicator of excessive borrowings. Ratio of more than 1 indicates net fixed assets of the company are more than its long-term funds which demonstrates that the company has bought some of its fixed assets with the help of short-term funds.

From the table it is evident that most of the SMEs are having a strong fixed asset ratio.

Only Bajaj health care ltd has an average fixed asset ratio greater than one which depicts operational inefficiency. This is because the fixed assets are financed by short term borrowings .It can be observed borrowings of the company is showing constant increase over the study period. The first reason can be a low interest rates charged on short term borrowings which further leads to a lower amount of instalments. The second reason can be financial institutions or lenders trust the credibility of owner instead of keeping a charge on collateral assets.

Grand mean is 38%,Bajaj Health care and Valiant organic ltd is exceeding over aggregate average of manufacturing industry. Filtra consultant &engineering ltd, Ganga Pharaceutical ltd,Patadium jewellery ltd is below grand mean.

In General, SMEs have lower percent of fixed assets of total long term funds. It is desirable to some extent as it means that a company has sufficient long-term funds to cover its fixed assets.

Table - 6.3.1 : B) Fixed Assets to long term funds Ratio in Service sector

(In terms of Percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	18%	19%	13%	10%	7%	13%	0.04
Suyog Telematics Ltd	33%	38%	83%	73%	65%	59%	0.20
Comfort Commotrade Ltd	27%	44%	45%	26%	22%	32%	0.10
Jupiter info media Ltd	4%	3%	1%	2%	7%	3%	0.02
Cawasji Behramji Catering services Ltd	53%	46%	31%	22%	25%	35%	0.12
Mitcon Consultancy & Engineering Services Ltd	40%	32%	26%	32%	28%	32%	0.05
Creative Peripherals and Distribution Limited	6%	7%	5%	4%	2%	5%	0.02
AVG	26%	27%	29%	24%	22%	26%	

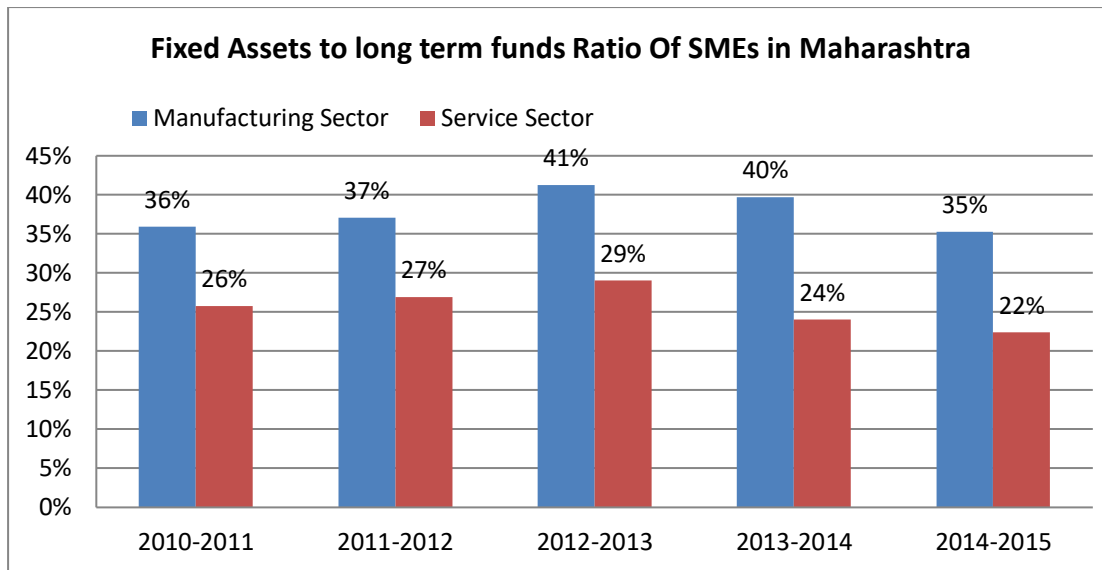
Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

“The ratio should not be more than one. If it is less than one, it shows that a part of the working capital has been financed through the long-term funds. This is desirable to some extent because a part of the working capital termed as “core working capital” is more or less of a fixed nature the ideal ratio is 0.67:1.”⁹⁹

The grand mean of Fixed Assets to long term funds Ratio in service sector of sample is 23%. DRA consultancy pvt.ltd., Comfort commontrade ltd, Jupiter Info media ltd, Creative peripherals and Distribution ltd have lower Fixed asset ratio which shows that long term funds are used more for working capital. Suyog Telematics ltd have invested huge amount in fixed asset in the year 2012-13 using long term borrowed funds. The standard deviation value further indicated moderate fluctuation in this ratio during the study period.

This Table is a clear indication that the firm has less investment in fixed assets. In general all sample companies show an ideal fixed assets ratio. It can be derived that SMEs have a strong long term solvency.

Figure-6.10 Average Fixed Assets to long term funds Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Average Fixed asset to Long term funds ratio of service sector Small and Medium enterprises is lower compare to manufacturing sector .Average ratio in service sector is in the range of 22%-29% where in average ratio of Manufacturing sector is in between 35%-41% as manufacturing sector have higher investment in fixed assets compare to service sector.

6.3.2 Long Term Debt to Asset Ratio

This ratio indicates the proportion of long term borrowed funds in the total assets of the company.

Table - 6.3.2 :A) Debt to Asset ratio of Selected SMEs (Figures in Times)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	12%	14%	13%	10%	15%	13%	0.02
Filtra consultants & engineers ltd	0%	0%	1%	2%	2%	1%	0.01
Ganga pharmaceuticals ltd	11%	39%	34%	29%	28%	28%	0.09
valiant organic ltd	0%	0%	0%	24%	33%	11%	0.14
Patdiam jewellery ltd	0%	1%	0%	0%	1%	0%	0.00
AVG	5%	11%	10%	13%	16%	11%	

Source: - compiled from annual report of companies.

Above table depicts that the almost all the companies' use equity in financing their assets. Most of the companies use more equity in proportion to their debt. As depicted by table, we can clearly see that Comfort common trade ltd is using least debt in proportion to equity in financing their assets. This company is using debt with the mean of 0.12 indicating that the company finances its most of assets by equity. Using high Equity than debt with an average of 0.12 in financing their assets which also indicates that the company is low leveraged one. Lowest standard deviation 0.02 of Cawasji Behramji Catering services ltd indicates that these companies are using debt in same proportions in the study period in relation to their equity.

Table - 6.3.2 :B) Debt to Asset ratio of Selected SMEs (Figures in Times)

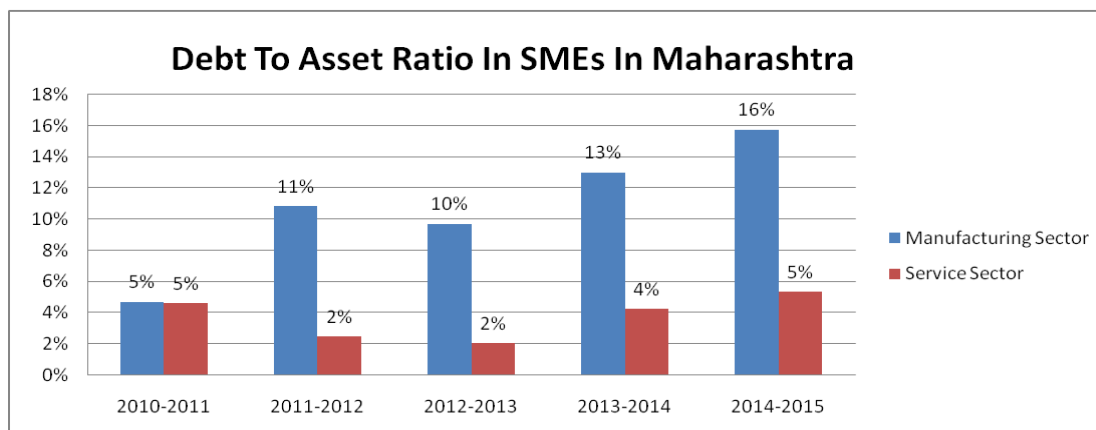
Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	9%	2%	1%	1%	1%	3%	0.03
Suyog Telematics ltd	0%	0%	0%	14%	19%	7%	0.08
Comfort Commotrade ltd	0%	0%	0%	0%	0%	0%	0.00
Jupiter info media ltd	0%	0%	0%	0%	0%	0%	0.00
Cawasji Behramji Catering services Ltd	2%	1%	1%	1%	3%	2%	0.01
Mitcon Consultancy & Engineering Services Ltd	6%	4%	4%	3%	3%	4%	0.01
Creative Peripherals and Distribution Limited	14%	11%	8%	10%	10%	11%	0.02
AVG	5%	2%	2%	4%	5%	4%	

Source: - compiled from annual report of companies.

In Service sector ,DRA consultant pvt ltd has 3 percent debt financing for total assets.

Comfort commotrade and Jupitot info media ltd finance its total assets only through own funds. Creative peripherals and distribution ltd has the highest investment through debt ie.11 percent followed by Suyog telematics ltd i.e 7 percent,Mitcon consultancy & engineering ltd has only 4 percent and Cawasji Peripherals and Distribution ltd 2 percent.

Figure-6.11 Average Debt to Assets Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source: - compiled from annual report of companies.

Manufacturing sector have increased use of debt over the study period ,the range is between 5 percent to 16 percent .In service sector use of Debt is low compare to Manufacturing i.e within 2 percent to 5 percent.

6.3.3 Interest Coverage Ratio

Table - 6.3.3 :A) Interest coverage ratio of Selected SMEs of manufacturing sector

(Figures in times)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	2.39	1.22	0.76	1.46	2.52	1.67	0.68
Filtra consultants & engineers ltd	NA	NA	NA	NA	NA	NA	NA
Ganga pharmaceuticals ltd	NA	NA	NA	NA	NA	NA	NA
valiant organic ltd	17.83	16.87	14.94	18.70	33.46	20.36	6.67
Patdiam jewellery ltd	1.64	1.66	1.56	1.46	1.62	1.59	0.07
AVG	7.29	6.58	5.76	7.21	12.53	7.87	

Source: - compiled from annual report of companies.NA –as no borrowed fund

Filtra Consultants & engineers ltd. and Ganga pharmaceutical ltd shows that they have not borrowed any funds and are self sufficient enough to run its business smoothly and there is possibility of further expansion and to maintain sustainable business.

Table - 6.3.3 : B) Interest coverage ratio of Selected SMEs of Service sector in Maharashtra (Figures in times)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	54.62	92.53	50.66	10.74	10.27	43.76	30.84
Suyog Telematics Ltd	NA	NA	2.08	2.11	4.20	2.80	0.99
Comfort Commotrade ltd	NA	3048.00	249.29	635.87	739.51	1168.17	1100.59
Jupiter info media ltd	NA	NA	8.44	3.30	7.79	6.51	2.28
Cawasji Behramji Catering services Ltd	12.54	13.90	5.76	3.13	1.78	7.42	4.92
Mitcon Consultancy & Engineering Services Ltd	181.96	264.53	118.77	137.58	134.42	167.46	52.89
Creative Peripherals and Distribution Limited	1.71	1.75	2.10	1.51	1.36	1.69	0.25
AVG	62.71	93.18	62.44	113.46	128.48		

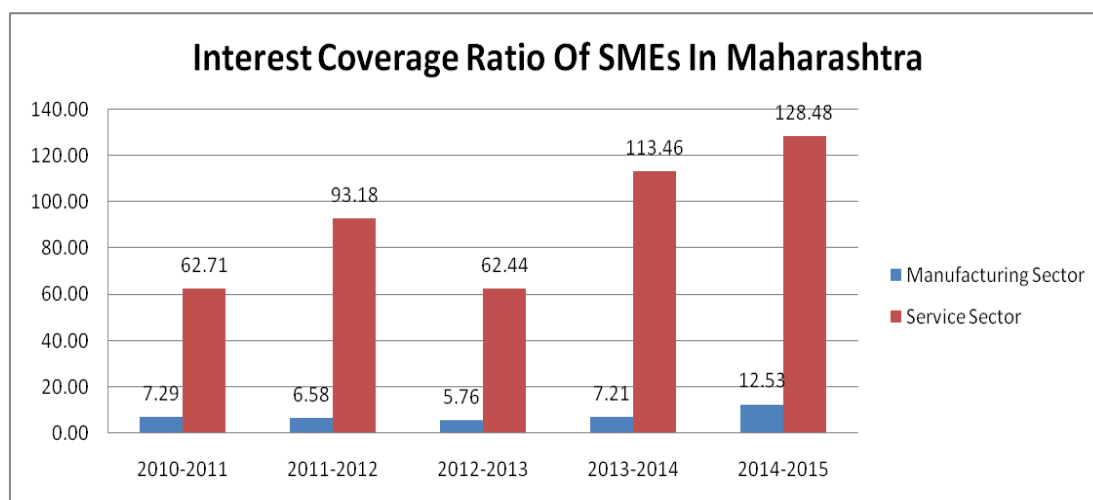
Source: - compiled from annual report of companies.

The Above table depicts that Comfort common Trade ltd and, Mitcon Consultancy & Engineering services ltd, are having maximum interest coverage ratio as compared to other companies with a mean of 1168 times , 59.14 times respectively which indicates that these companies are having less burden of debt expenses.

In addition to this, these firms are highly debt attractive companies. On the other hand the companies like Creative Peripherals and Distribution SME. having minimum interest coverage ratio with a mean 1.69 times indicating that these companies are much burdened with financial charges as compared to other companies under study. Furthermore, it also means that these companies are not very much attractive enough in terms of debt financing.

Taking into consideration the standard deviation of the companies under study, it is clear that the Comfort Common Trade Ltd is having maximum standard deviation of 1168 implying that the company is paying interest at a huge fluctuating rate and Creative Peripherals & Distribution company is having lower standard deviation of 0.28 as compared to other companies indicating that the company is constantly paying its interest dues in an average trend.

Figure-6.12 Average Interest Coverage Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Interest Coverage ratio is very high in Service Sector compare to Manufacturing sector. Manufacturing sector SMEs has a range of 62.71 times to 128.48 times. Service sector SMEs has a range of 5.76 times to 12.53 times.

6.3.4 Financial Leverage

A leverage ratio is one of financial measurements that look at how much capital comes in the form of debt (loans), or assesses the ability of a company to meet its financial obligations. The leverage ratio is important given that companies rely on a mixture of equity and debt to finance their operations and knowing the amount of debt held by a company is useful in evaluating whether it can pay its debts off as they come due.

Table - 6.3.4 :A) Financial Leverage of Manufacturing sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	1.14	1.14	0.56	1.27	0.47	0.91	0.33
Filtra consultants & engineers ltd	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Ganga pharmaceuticals ltd	0.01	0.03	0.04	0.04	0.05	0.03	0.01
valiant organic ltd	1.06	1.06	1.07	1.06	1.03	1.06	0.01
Patdiam jewellery ltd	2.57	2.52	2.77	3.16	2.62	2.73	0.23
AVG	1.15	1.15	1.09	1.30	1.03	1.15	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

An Financial leverage of 1.5 indicates a good mix of debt and equity,² is challenging. The financial risk of enterprise increases as Financial Leverage moves beyond 2. However Financial leverage below 1 indicates that the firm is highly risk averse. Bajaj health care ltd has decreasing trend ,average is below 1 i.e. 0.91. Filtra Consultant & engineers ltd has 1 consistently. Ganga pharmaceutical ltd average is below 1 i.e. 0.03. Valiant organic ltd has average Financial leverage 1.06 .Patdiam jewellery ltd has increasing trend .

Table - 6.3.4 : B) Financial Leverage of Service sector

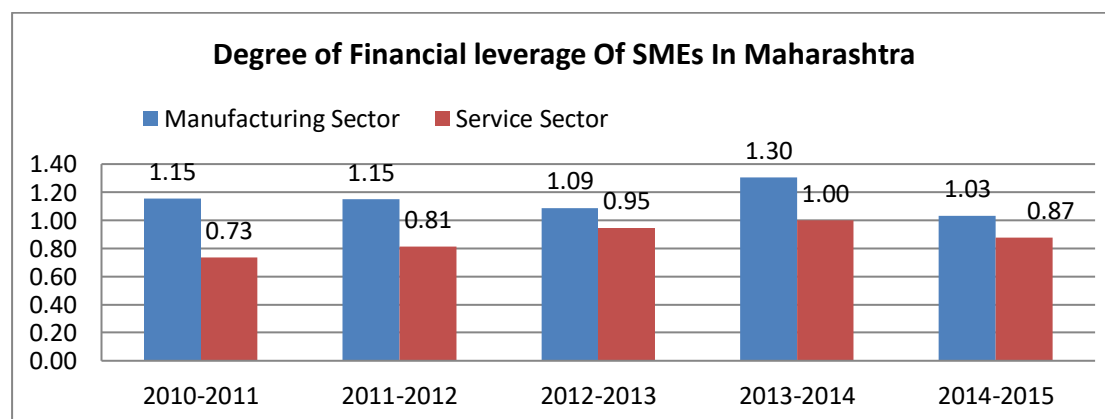
Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	0.63	1.01	1.02	1.10	1.11	0.98	0.18
Suyog Telematics Ltd	1.00	1.00	1.93	1.90	1.31	1.43	0.41
Comfort Commotrade Ltd	0.38	1.00	1.00	1.00	1.00	0.88	0.25
Jupiter info media ltd	1.00	1.00	1.13	1.43	1.15	1.14	0.16
Cawasji Behramji Catering services Ltd	0.43	0.52	0.34	0.40	0.33	0.40	0.07
Mitcon Consultancy & Engineering Services Ltd	1.01	1.00	1.01	1.01	1.01	1.01	0.00
Creative Peripherals and Distribution Limited	0.70	0.15	0.19	0.16	0.22	0.28	0.21
AVG	0.73	0.81	0.95	1.00	0.87	0.87	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

The higher the leverage of the company, the more risk it has, and a business should try and balance it as leverage is similar to having a debt. Suyog Telematics ltd has the highest degree of financial leverage 1.43 as profit is very low and finance charges are very high as compare to profits.

DRA consultant pvt ltd ,Comfort commotrade ltd ,Cawasji Behramji Catering services ltd, Creative Peripherals and Distribution ltd has less than 1 Financial average Ratio.

Figure-6.13 Average Financial Leverage Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

The average Financial Leverage Ratio of selected SMEs in manufacturing sector is in the range of 1.03 to 1.15 during study period. The average Financial Leverage Ratio of selected SMEs in service sector is in the range of 1.03 to 1.15 during study period

6.4 ANALYSIS OF PERFORMANCE OF CAPITAL STRUCTURE OF THE SELECTED SMES OF MANUFACTURING AND SERVICE SECTOR IN MAHARASHTRA

According to S.C.Kuchal, “within this framework of equating the rate of return and the cost of capital, capital structure is sought by using a proportion of debt such that the correct degree of trading on equity leading to financial leverage will cause the highest market value of the ordinary shares”.¹⁰⁰ Capital structure, therefore, involves a choice between size and expected returns.

1. Debt Equity ratio
2. Proprietary Ratio

6.4.1 Debt-Equity Ratio

The long-term solvency of a firm can be judged with capital structure ratios. The relationship between borrowed funds and the owner's capital is an accepted measure of the long-term solvency of a company which is shown by the debt-equity ratio. The object of calculating the debt-equity ratio is to measure the relative interest of owners and creditors of the firm. The ratio indicates the proportionate claims of owners on the firm's assets. The purpose is to get an idea of the cushion available to outsiders on the liquidation of the firm. A ratio of 1:1 may be usually considered satisfactory, although there cannot be any rule of thumb for all types of business.

In a comprehensive study of Indian corporate sector made by Chakraborty (1997)¹⁰¹, “total debt to equity was considered to represent the debt-equity ratio.” Shanmugasundaram (2008)¹⁰² in his research work used “both short- term and long-term borrowings in the debt equity ratio to represent the capital structure.” In a research work of Raghvir Kaur and N Krishna Rao (2009)¹⁰³ “total debt has been considered to calculate the debt-equity ratio and

the reason quoted for using total debt in their study is that the so called short term debt usually taken for financing current assets, gets renewed or renegotiated every year.” As a result, the short term debt also becomes permanent and repaid in instalments. Similarly, in this study also total debt to equity has been considered to represent the debt-equity ratio.

Table - 6.4.1 : A) Debt-Equity Ratio of Manufacturing Sector

(In terms of percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	1.47	1.83	2.29	2.12	1.60	1.86	0.31
Filtra consultants & engineers ltd	-	-	-	-	-	-	0.00
Ganga pharmaceuticals ltd	0.92	0.87	0.64	0.80	0.87	0.82	0.10
valiant organic ltd	0.13	0.16	0.27	0.36	0.04	0.19	0.11
Patdiam jewellery ltd	0.71	0.75	0.89	0.87	0.83	0.81	0.07
AVG	0.65	0.72	0.82	0.83	0.67	0.74	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Debt and equity are the main source of funds of any company. The ideal mixture of debt and equity in the capital structure helps the company to perform better. When the proportion of debt increases, it creates a risk of bankruptcy for the entity.

The above table depicts that most of the companies usually employ debt relatively lower than their equity. Among these companies the ratio of Bajaj health care Ltd. has highest average 1.86 as compared to other companies is relatively higher with a mean of 0.74 which indicates that this company is aggressively financing its growth with debt, the reason of higher Debt equity ratio may be the nature of the business. In case of Valiant organic ltd ,this ratio is very low with a mean of 0.19 indicating that the company wants to retain much control over the company. In addition, this company has minimum standard deviation as compared to other companies during the period of study.

Filtra Consultant & engineers ltd is zero debt company

The debt-equity mix of the sample shows that their long-term financial strength was sound during the year 2010-11 to 2014-15, as the proportion of debt was always less Debt than the equity. The debt-equity do varied from a minimum of 0.19 .Data indicates that the increasingly using more equity than debt for meeting its financial needs. There were debt fluctuations in the mix of debt and equity capital structure. From the creditor's point of view,

the long-term financial position was sound as the company had sufficient equity funds to pay the debt.

Table - 6.4.1 : B) Debt-Equity Ratio of Service Sector

(In terms of percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	0.16	0.08	0.02	0.01	0.00	0.05	0.06
Suyog Telematics Ltd	1.01	0.51	1.59	1.01	0.55	0.93	0.39
Comfort Commotrade ltd	0	0	0.003	0	0.016	0.00	0.01
Jupiter info media ltd	0	0	0.008	0.081	0.019	0.02	0.03
Cawasji Behramji Catering services Ltd	0.33	1.17	1.44	1.57	1.62	1.23	0.48
Mitcon Consultancy & Engineering Services Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Creative Peripherals and Distribution Limited	2.38	2.53	2.48	2.67	1.71	2.35	0.33
AVG	0.55	0.61	0.79	0.76	0.56	0.66	

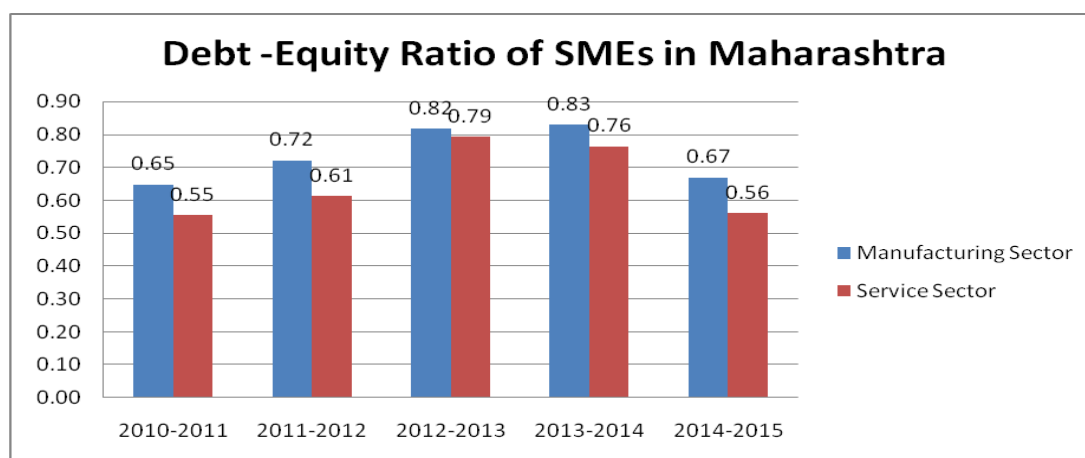
Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Considering the above results Suyog Telematics Ltd. is having maximum standard deviation of 0.20. Among the individual companies which had less long-term debt include DRA consultant ltd, Mitcon consultancy & engineering service ltd. Comfort common trade ltd, Jupiter Info Media ltd are zero debt companies which depicts Small and Medium Companies mostly operated on its own fund.

Creative Peripherals & distribution ltd. has an average 2.35 times which is higher than the aggregate 0.66, this is due to higher amount of short borrowings.

The debt equity ratio did not exceed the standard norm of one: one time in the years of the study period. On an average, it recorded at 0.66 times. From the creditor's point of view, the long-term financial position was fairly satisfactory.

Figure-6.14 Average Debt Equity Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



It further suggests that the SMEs successfully adopted the policy of trading on equity, which resulted into higher return on equity. In other words, SMEs were trying to increase the profits with the use of less cost of source of funds. In other words, the industry did not follow a uniform policy of raising funds from borrowing and net worth. In the same way, the debt equity ratio was not consistent due to changes in the debt and equity capital proportions. From the creditor's point of view, the long-term financial strength was poor. Service sector in SMEs more dependent on own funds than borrowed funds, service sector is between 0.55 to 0.79 and manufacturing sector is between 0.65 to 0.82. The ability to pay off its fixed interest commitments was very sound.

6.4.2 Proprietary Ratio

Proprietary ratio establishes the relationship between shareholders' funds and the total assets of the firm. The higher ratio of the share indicates better long-term solvency position. This ratio indicates the extent to which the assets of the company can be invested without affecting the interest of the creditor.

Table - 6.4.2 : A) Proprietary Ratio of Manufacturing Sector

(In terms of percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	27%	24%	21%	20%	26%	24%	0.03
Filtra consultants & engineers ltd	24%	32%	55%	42%	55%	42%	0.12
Ganga pharmaceuticals ltd	48%	49%	54%	51%	46%	49%	0.03
valiant organic ltd	59%	54%	50%	54%	56%	54%	0.03
Patdiam jewellery ltd	49%	54%	49%	46%	50%	50%	0.03
AVG	41%	42%	46%	43%	46%	44%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Proprietary Ratio indicates the amount which is invested by the proprietors, partners or the shareholders together with the ploughed back profits. In this company the ratio is increasing every year which indicates that company is less dependent on outside funds. The maximum average percentage of shareholders fund in total assets is 54%. Proprietary Ratio indicates the use of shareholders funds and it is seen that in some year it has been decreasing and in some years it is increasing which indicates that in the year it has been decreasing, the use of owned funds is more compared to borrowed funds.

In Bajaj Health care ltd proprietary ratio was registered fluctuating trend and ranged from 21% in the year 2012-2013 to 28% in the year 2010-2011 during the study period.

Above table showed that the mean proprietary ratio of Valiant Organic Ltd. was 0.54 which is statistically significant.

The SMEs viz. Filtra Consultant & Engineering ltd, Ganga pharmaceutical ltd, Valiant organic ltd, Patdiam Jewellery ltd is nearby the average mean of manufacturing sector i.e 44%. only Bajaj Health care ltd shows the lower shareholder fund out of total assets of 24% as this SME is trading on borrowed fund .

Grand mean of SMEs is 44%, All sample units are very close to aggregate mean except Bajaj Healthcare ltd.

The analysis of financial structure of SMEs points out that SMEs industry in the state has, more or less, depend on both internal and external sources, but more upon on internal sources.

Table - 6.4.2 : B) Proprietary Ratio of Service Sector

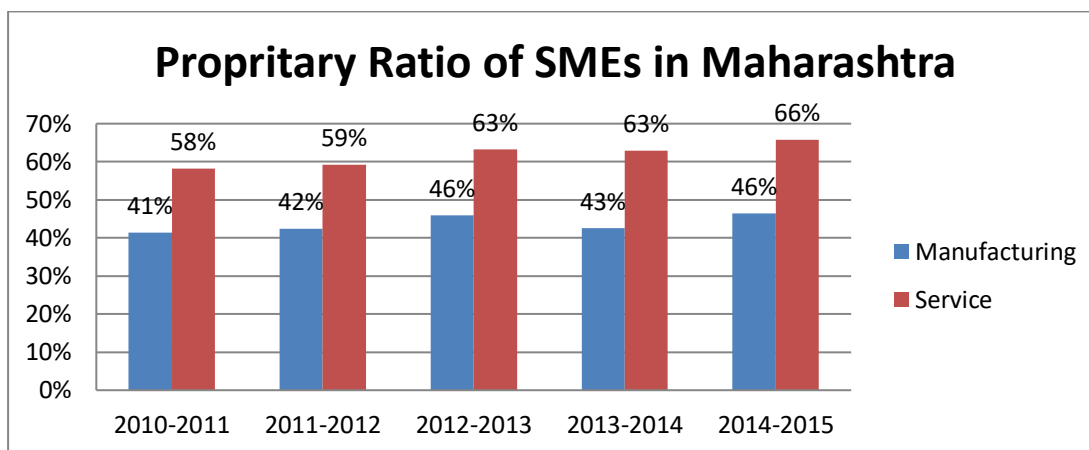
(In terms of percent)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	67%	48%	62%	69%	72%	64%	0.09
Suyog Telematics Ltd	31%	42%	29%	40%	53%	39%	0.09
Comfort Commotrade Ltd	75%	24%	21%	23%	25%	34%	0.21
Jupiter info media ltd	87%	90%	98%	91%	97%	93%	0.04
Cawasji Behramji Catering services Ltd	33%	24%	24%	23%	22%	25%	0.04
Mitcon Consultancy & Engineering Services Ltd	79%	85%	86%	90%	90%	86%	0.04
Creative Peripherals and Distribution Limited	24%	22%	23%	24%	30%	25%	0.03
AVG	57%	48%	49%	51%	56%	52%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

It can also be concluded that over the course of 5 years of study period from 2010-11 to 2014-15, the Proprietary Ratio has increased. The Proprietary Ratio is positive or more than 50% during whole study period which indicates utmost dependence on inside sources of fund in financing total assets. Mitcon Consultant and distribution ltd have financed its total assets with own funds with on an average of 86 percent.

Figure-6.15 Average Proprietary Ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Proprietary ratio was registered fluctuating trend. In manufacturing sector SMEs have a range from 41% to 46% and Service sector SMEs have a range between 50% to 60% during the study period. This indicates shareholders funds are safe or riskless as more assets compare to their share in the SME.

6.4.3 Total Debt to Total Asset

This ratio indicates the entire financial structure of the business, divided between equity and total outside liabilities. It is calculated by dividing Total debt by Total Asset.

Table - 6.4.3 :A) Total Debt to Total asset in Manufacturing sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	40.17%	43.53%	48.59%	43.40%	40.89%	43.32%	3%
Filtra consultants & engineers ltd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
Ganga pharmaceuticals Ltd	44.18%	42.29%	34.29%	40.27%	39.78%	40.16%	3%
valiant organic ltd	7.65%	8.37%	13.42%	19.46%	2.38%	10.26%	6%
Patdiam jewellery ltd	35.06%	40.59%	44.03%	39.60%	41.75%	40.21%	3%
AVG	25.41%	26.96%	28.06%	28.55%	24.96%	26.79%	

Source: - compiled from annual report of companies.

Bajaj health care ltd has increasing trend with the average of 43.32 percent. Ganga pharmaceutical ltd has average 40.16 percent only in case of Valiant organic ltd erratic and fluctuating as it indicates short term funds are utilise and repaid frequently. Patadium jewellery ltd has average of 40.21 percent. This table indicates that assets of SMES are financed maximum by own funds.

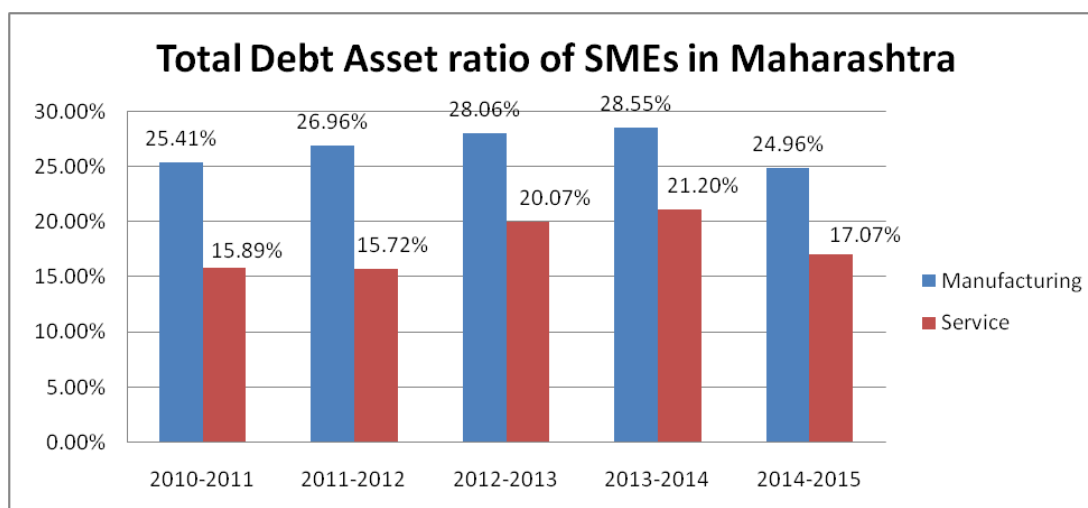
Table - 6.4.3 :B) Total Debt to Total asset in Service sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	11.11%	3.74%	1.10%	0.76%	0.00%	3.34%	0.04
Suyog Telematics ltd	31.63%	21.39%	46.60%	40.12%	29.33%	33.81%	0.09
Comfort Commotrade ltd	0.00%	0.00%	0.32%	0.00%	1.45%	0.35%	0.01
Jupiter info media ltd	0.00%	0.00%	0.79%	7.37%	1.87%	2.00%	0.03
Cawasji Behramji Catering services Ltd	10.93%	28.43%	34.57%	36.33%	36.24%	29.30%	0.10
Mitcon Consultancy & Engineering Services Ltd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
Creative Peripherals and Distribution Limited	57.53%	56.49%	57.09%	63.82%	50.59%	57.10%	0.04
AVG	15.89%	15.72%	20.07%	21.20%	17.07%	17.99%	

Source: - compiled from annual report of companies.

Creative Peripherals and Distribution ltd has the highest total debt to Equity ratio i.e 57.10 percent followed by Suyog telematics ltd 33.81 percent, Cawasji Behrtamji Catering services ltd i.e. 29.30 percent. DRA consultant ltd has decreasing trend 11.11 percent in 2010-2011 and zero in 2014-2015. Jupiter info media ltd has low average ratio of 2 percent.

Figure-6.16 Average Total Debt Asset ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Total debt to asset ratio in manufacturing sector is higher than the Service sector.

As this ratio is higher in capital intensive industry than low capital intensive industry unit. Manufacturing SMEs have range of 24 percent to 29 percent wherein Service Sector range is in between the 15 percent to 21 percent.

6.5 ANALYSIS OF PROFITABILITY OF THE SELECTED SMES OF MANUFACTURING AND SERVICE SECTOR IN MAHARASHTRA

Profitability is an indication of the efficiency with which the operations of the enterprise are carried on. Poor operational performance may indicate poor sales and hence poor profits. A lower profitability may arise due to the lack of control over a expenses. In accountancy, profitability may be described as a yard-stick of the enterprise performance and indicates

public acceptance of the products. It is a relative concept which regulates and controls management policy and decision. In the words of Weston and Brigham, “Profitability is the net result of a large number of polices and decisions.” The profitability ratios show the combined effects of liquidity, assets management and debt management on operating results.

6.5.1 Net Profit Ratio

Table - 6.5.1 :A) Net Profit Ratio of SMEs in Manufacturing Sector

(In terms of percentage)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	3.73%	7.53%	5.24%	5.84%	3.44%	5.16%	1.49%
Filtra consultants & engineers ltd	9.16%	4.36%	4.81%	2.15%	3.60%	4.82%	2.35%
Ganga pharmaceuticals ltd	0.15%	0.96%	1.13%	1.12%	1.24%	0.92%	0.40%
valiant organic ltd	11.99%	11.84%	13.04%	12.32%	19.78%	13.79%	3.02%
Patdiam jewellery ltd	1.99%	2.81%	2.76%	2.17%	0.97%	2.14%	0.67%
AVG	5.40%	5.50%	5.40%	4.72%	5.81%	5.37%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

As observed from the table that the Net Profit Margin of Bajaj Healthcare has highest net profit ratio in the year 2014-15 i.e.5.84 percent and lowest in the year 2012-2013 which is 3.73 percent. The results show that Net profit of Bajaj Healthcare is increasing year after year.

The point to be noted here is that all selected SMEs having all positive values of Net Profit Margin in all the years.It shows fluctuation trend during study period. The Net Profit Ratio of Filtra consultant & engineers ltd shows up and down trends in every year. The average ratio of Ganga pharmaceuticals ltd was 2%, which is less than the average ratio of sampled units. So company is performing low. Vailant organic ltd, The average ratio of this company was 21%, which is more than the average ratio of sampled companies. So company is doing better than average.

The average net profit ratio of all manufacturing Selected SMEs are ranging between 2% to 46.09%, only Bajaj Healthcare ltd shows the highest net profit margin so we can say that the company is performing well and growing.

Table - 6.5.1 : B) Net Profit Ratio of SMEs in Service Sector

(in terms of percentage)

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	14.10%	14.14%	13.62%	12.29%	12.90%	13.41%	0.72%
Suyog Telematics ltd	11.64%	8.04%	11.20%	7.91%	15.54%	10.87%	2.80%
Comfort Commotrade ltd	3.28%	7.94%	7.67%	21.12%	25.33%	13.07%	8.56%
Jupiter info media ltd	6.30%	3.14%	15.09%	11.28%	31.21%	13.40%	9.80%
Cawasji Behramji Catering services Ltd	2.96%	5.02%	4.24%	3.05%	1.30%	3.32%	1.27%
Mitcon Consultancy & Engineering Services Ltd	20.01%	21.25%	17.51%	12.38%	10.25%	16.28%	4.28%
Creative Peripherals and Distribution Limited	0.43%	0.71%	1.13%	0.41%	0.34%	0.61%	0.29%
AVG	8.39%	8.61%	10.07%	9.78%	13.84%	10.14%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

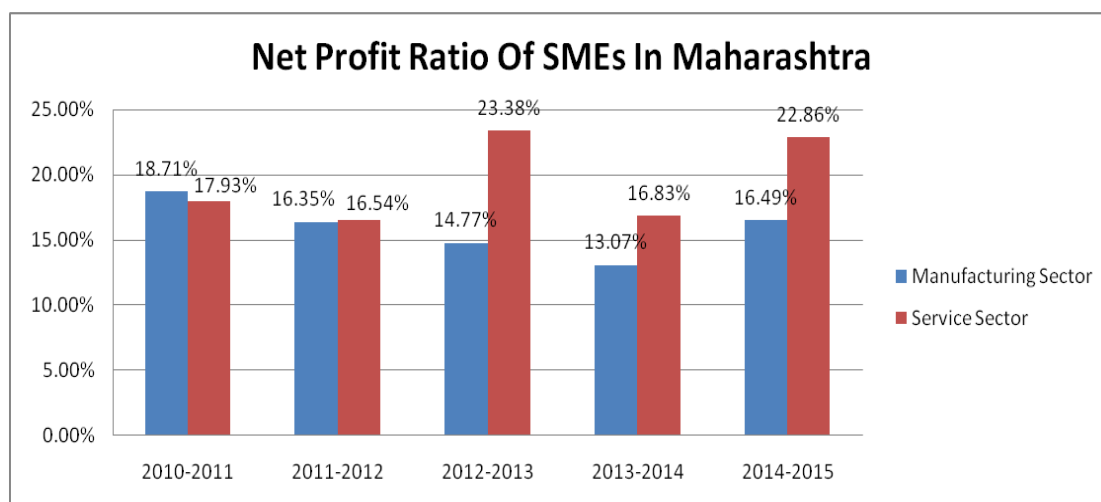
DRA Consultant Pvt ltd, the Net Profit Ratio of shows fluctuation trend during study period. It is ranged between 33.5% in the year 2010-2011 to 19.20% in the year 2014-15 .The average ratio of this company was 22.40%, which is more than the average ratio 19.51% of sampled companies. So company is doing better than average.

Creative Peripherals has the minimum average profit ratio i.e. 11.43% which is below the average of 19.51% and Mitcon Consultancy & Engineering service Ltd has maximum average net profit ratio i.e.23.39%.

Comfort common trade shows extreme results as there is other income added to the profits of the company due to high amount of other income this ratio is shows the highest side of normal range. This is peculiarity of Service sector SME that it is showing the fluctuations. Comfort common trade ltd. has inconsistency over study period with highest standard deviations of 12.89%.

This table depicts , average Net profit ratio of SMEs in manufacturing sector range between 11% to 23% . Fluctuating trend in mean Net profit margin ratios of selected SME units of Maharashtra sample units has been observed during the entire study period

Figure-6.17 Average Net Profit ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Fluctuating trend in mean Net profit margin ratios of selected SME units of Maharashtra sample units has been observed during the entire study period. The range between service sector SMEs and manufacturing sector is approximately a similar trend 16% to 24%.

6.5.2 Return on Capital Employed

“The term Return on Investment (ROCE) refers to an additional sum of money expected from an investment over and above the original investment, the return may be before or after tax. Investment refers to commitment of economic resource such as money, machinery and equipment, manpower etc.; with an expectation of producing a gain either in the form of income, appreciated value, greater efficiency or cost savings.”¹⁰⁴

Table -6.5.2 : A)Return on Capital employed Of SMEs in Manufacturing Sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	24.12%	12.00%	10.33%	22.88%	32.60%	20.39%	8%
Filtra consultants & engineers ltd	76.26%	76.59%	49.90%	22.63%	25.11%	50.10%	24%
Ganga pharmaceuticals ltd	11.91%	8.54%	8.75%	8.33%	9.51%	9.41%	1%
valiant organic ltd	31.17%	34.31%	35.05%	39.17%	47.05%	37.35%	5%
Patdiam jewellery ltd	13.54%	10.86%	11.93%	12.07%	13.23%	12.33%	1%
AVG	31.40%	28.46%	23.19%	21.02%	25.50%	25.91%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

It is found that the highest Return on Capital Employed is reported by Filtra Consultant & engineers Ltd. and Valiant Organic Ltd. enterprises of the selected SME units of Maharashtra during study Period where as Ganga Pharamceutical ltd and Patadium jewellery Ltd showed lowest Return on Capital Employed during these Periods. Fluctuating trend in mean Return on Capital Employed ratios of SME units of Maharashtra has been observed during the entire study period. The mean unit of Return on Capital Employed of Small and Medium units, in highest year wise mean 31.4 in year 2010-11, and lowest 23.2% in year 2012-13 in study period.

Table - 6.5.2 : B)Return on Capital employed Of SMEs in Manufacturing Sector

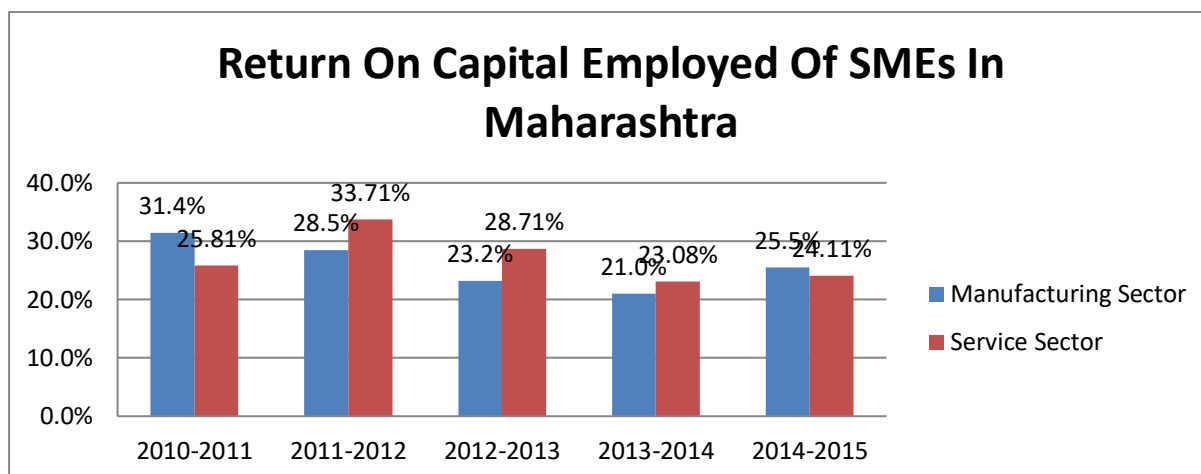
Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	43.44%	49.10%	31.60%	25.75%	35.72%	37.12%	8%
Suyog Telematics ltd	29.39%	27.92%	50.98%	20.68%	22.88%	30.37%	11%
Comfort Commotrade Ltd	7.23%	24.36%	9.42%	24.20%	34.06%	19.86%	10%
Jupiter info media ltd	4.11%	1.47%	1.48%	1.27%	1.66%	2.00%	1%
Cawasji Behramji Catering services Ltd	39.44%	74.74%	57.05%	53.16%	32.36%	51.35%	15%
Mitcon Consultancy & Engineering Services Ltd	33.59%	24.94%	12.43%	9.09%	7.59%	17.53%	10%
Creative Peripherals and Distribution Limited	23.48%	33.41%	37.99%	27.39%	34.51%	31.36%	5%
AVG	25.81%	33.71%	28.71%	23.08%	24.11%	27.08%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

DRA Consultant pvt ltd has the highest average ratio of 37.12 percent, the trend shows fluctuation and inconsistency. Suyog Telematics ltd has high ratio 30.37 percent return on capital employed. Comfort commotrade ltd has shown exorbitant growth over study period from 7 percent in 2010-2011 to 34 percent in 2014-2015, this is a positive sign and also reveals this unit is performing very well during study period. The least return on capital employed is reported by Jupiter infomedia ltd. Cawasji Behramji catering is the best performing SME among the selected samples. The trend of Mitcon Consultancy & Engineering ltd reveals decreasing profits the reason can be In recent years the decline in EBIT was more than the decline in assets, This indicates that the Mitcon Consultancy ltd has

not been designing its investment policy depending upon its capacity to earn profits. .Creative Peripherals and distribution ltd has the average ratio of 31.36 percent.

Figure-6.18 Average Return on Capital Employed ratio of Selected SMEs during the study period from 2010-11 to 2014-15



Source – Computed

Return on Capital employed of SMEs in Manufacturing Sector is in the range of 21 percent to 31.4 percent .SMEs in service sector is in the range of 23 percent to 33.71 percent. Overall SMEs shows erratic and negative trend.

6.5.3 Return on Asset Ratio

Table - 6.5.3:A) Return on Asset of SMEs in Manufacturing Sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	4.32%	8.77%	6.83%	8.23%	5.15%	6.66%	2%
Filtra consultants & engineers ltd	14.93%	15.69%	18.36%	5.96%	9.27%	12.84%	5%
Ganga pharmaceuticals ltd	0.06%	0.42%	0.55%	0.58%	0.62%	0.45%	0%
valiant organic ltd	14.91%	14.58%	14.80%	18.34%	25.28%	17.58%	4%
Patdiam jewellery ltd	2.11%	1.87%	1.78%	1.46%	1.03%	1.65%	0%
AVG	7.27%	8.26%	8.46%	6.91%	8.27%	7.84%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Table 6.5.2 reveals that the percentage of EBIT to Assets (ROA) in respect of the SMEs in Manufacturing sector varied between 0.45 percent and 17.58 percent during the study period. This indicates that there was an fluctuating trend in the ROA ,this speaks of ineffective utilization of total assets. Valiant organic ltd has the highest ratio 17.58 percent

followed by Filtra consultant & engineers ltd 12.84 percent .Bajaj healthcare ltd ,Patdiam jewellery ,Ganga pharmaceutical have low return on asset.

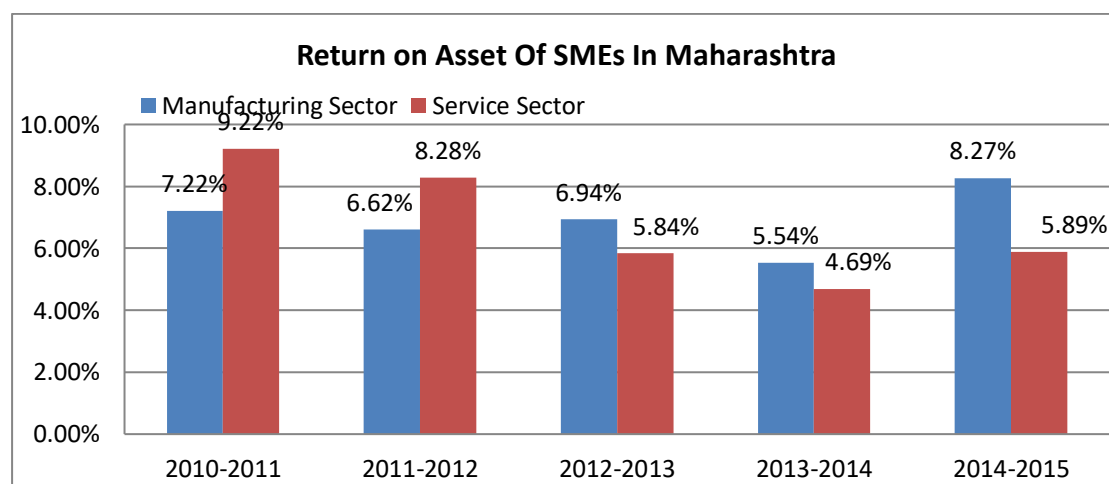
Table - 6.5.3:B) Return on Asset of SMEs in Service Sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	22.15%	16.18%	12.98%	11.09%	15.68%	15.61%	3.76%
Suyog Telematics ltd	5.78%	7.20%	5.12%	3.49%	7.84%	5.88%	1.54%
Comfort Commotrade Ltd	3.60%	3.89%	0.99%	4.08%	6.51%	3.81%	1.75%
Jupiter info media ltd	2.36%	0.90%	1.47%	0.91%	1.14%	1.36%	0.54%
Cawasji Behramji Catering services Ltd	7.25%	9.85%	8.12%	5.19%	1.74%	6.43%	2.78%
Mitcon Consultancy & Engineering Services Ltd	21.19%	16.99%	7.86%	6.06%	6.38%	11.69%	6.21%
Creative Peripherals and Distribution Limited	2.18%	2.97%	4.36%	2.02%	1.93%	2.69%	0.91%
AVG	9.22%	8.28%	5.84%	4.69%	5.89%	6.78%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

Return on asset in DRA consultant is high compare to remaining selected SMEs i.e.15.61 percent ,followed by Mitcon Consultancy & Engineering ltd 11.69 percent.Cawasji Behramji catering services ltd indicates decreasing trend which shows inefficient use of assets .Manufacturing units shows the higher increase of fixed asset compare to net profit .Jupiter infomedia ltd has the lowest average ratio 1.36 percent.

Figure 6.19 :Return on Asset of SMEs in Maharashtra



Source – Computed

The return on asset analysis conducted in the study reveals that Manufacturing sector SMEs have shown the Downbeat tendency during 2013-2014 and then has shown the positive trend in the performance of profitability ratios during 2014-15 .Service sector SMEs shows the negative trend which is the area of concern and increase of sales or effective utilisation of asset plans should be implemented in SMEs viz. Jupiter infomedia and DRA consultant.

6.5.4 Return on Net Worth

Table - 6.5.4 :A)Return on Net Worth of SMEs Manufacturing Sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
Bajaj Healthcare Ltd	20.76%	38.26%	30.43%	44.59%	32.20%	33.25%	8%
Filtra consultants & engineers ltd	76.26%	76.59%	49.90%	22.63%	25.11%	50.10%	24%
Ganga pharmaceuticals ltd	47.59%	47.98%	40.33%	40.08%	42.70%	43.74%	3%
valiant organic ltd	38.46%	40.64%	43.98%	51.10%	69.23%	48.68%	11%
Patdiam jewellery ltd	5.28%	4.30%	4.31%	3.83%	5.06%	4.55%	1%
AVG	37.67%	41.55%	33.79%	32.45%	34.86%	36.06%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

During the study period of this industry the highest Average ratio was 50.10 % of Filtra consultant ltd with the highest deviation of 24 percent and lowest ratio was 4.55% of Patdiam jewellery ltd with constant performance over the study period. Patdiam jewellery ltd reveals the weak condition of rate of return on total assets ratio compared with other SMEs . When rate of return on total assets ratio may be highest condition per year it is better situation of SMEs. Except Patdiam jewellery ltd all other manufacturing SMEs earning are in the range of 30 percent to 50 percent .

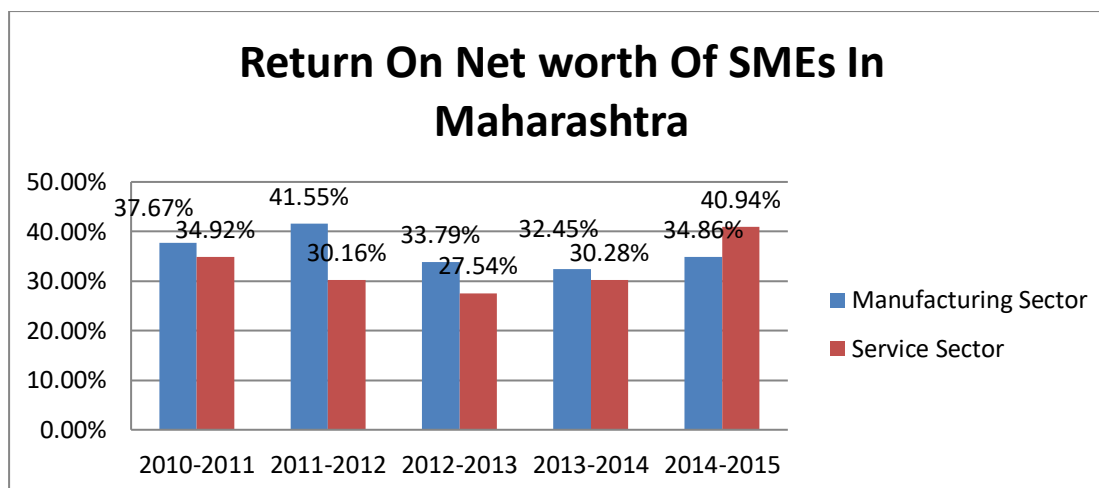
Table - 6.5.4:B)Return on Net Worth of SMEs Service Sector

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG	STDEV
DRA Consultants Pvt Ltd	35.67%	19.86%	17.23%	35.19%	53.35%	32.26%	13%
Suyog Telematics ltd	76.26%	76.59%	49.90%	22.63%	25.11%	50.10%	24%
Comfort Commotrade ltd	14.70%	15.38%	14.32%	13.11%	15.45%	14.59%	1%
Jupiter info media ltd	40.75%	43.20%	47.13%	53.98%	71.37%	51.29%	11%
Cawasji Behramji Catering services Ltd	13.54%	10.86%	11.93%	12.07%	13.23%	12.33%	1%
Mitcon Consultancy & Engineering Services Ltd	29.80%	23.56%	24.26%	31.79%	43.69%	30.62%	7%
Creative Peripherals and Distribution Limited	33.73%	21.70%	27.97%	43.21%	64.37%	38.20%	15%
AVG	34.92%	30.16%	27.54%	30.28%	40.94%	32.77%	

Source: Compiled and computed from the published annual reports of the selected SMEs in Maharashtra

A medium good condition of rate of return on total assets ratio is indicated in table but rate of return on total assets ratio is first decreased and increased every year. Suyog Telematics ltd and Jupiter infomedia ltd have the high return on net worth 50.10 percent and 51.29 percent respectively. DRA Consultant Pvt Ltd , Mitcon consultancy & engineering service ltd & Creative peripherals & Distribution ltd has a range of similar ratio 32.26 percent, 30.62 percent and 38.20 percent respectively. Comfort commotrade ltd and Cawasji Behramji catering service ltd has the lower range of return on net worth ratio i.e 12.33 percent and 12.33 percent respectively.

Figure 6.20 : Return on Net Worth of SMEs in Maharashtra



Source – Computed

Return on net worth of SMEs are fluctuating .as the average ratio is more than minimum 27.54 percent in service sector and 32.45 percent in Manufacturing sector. This indicates the SMEs have good opportunity of growth .

6.6 FIXED ASSET UTILISATION INDEX

In an enterprise, fixed asset must be employed in the same quantum of sales. Fixed asset Index assist in understanding the efficiency of an business in optimum utilization of fixed assets. One of the most important tools employed to evaluate the effectiveness of the utilization of fixed assets is assets index.¹⁰⁵ Fixed asset turnover means the number of times an asset flows through a firm's operations into sales. The turnover of fixed assets investment is defined as the relationship between the volume of business done and the amount of capital tied-up in fixed property investments¹⁰⁶. In order to analyse the utilization of fixed assets, the utilization index for the fixed assets has been worked out as under

$$UI_{FA} = \frac{S_t}{S_{t-1}} \times \frac{FA_{t-1}}{FA_t}$$

Where

- UI_{FA} – Utilization Index (Fixed Assets)
- S_t – Sales revenue at period 't'
- S_{t-1} – Sales revenue at (t-1) period
- FA_t – Fixed assets at period 't'
- FA_{t-1} – Fixed assets at (t-1) period

A value of UIFa > 1 indicates in the matter of utilization of fixed assets of the company. The higher the value of the index, the greater is the degree of efficiency in this regard and vice-versa.

Table - 6.6 : A) Fixed Asset Index of Manufacturing Sector

Name/Financial year	2011-2012	2012-2013	2013-2014	2014-2015	AVG
Bajaj Healthcare Ltd	0.89	1.03	1.16	0.91	1.00
Filtra consultants & engineers ltd	3.30	0.21	1.40	1.09	1.50
Ganga pharmaceuticals ltd	1.10	0.96	1.17	1.01	1.06
valiant organic ltd	1.02	1.11	1.40	0.79	1.08
Patdiam jewellery ltd	0.58	1.21	1.26	1.84	1.22
AVG	1.38	0.90	1.28	1.13	1.17

Sources-Computed

The efficiency in the utilization of fixed assets varies from 0.89 in 2011-12 to 0.91 in 2014-15 whereas the average utilization index in the Bajaj healthcare ltd is 1.00. In the Filtra consultant & engineers ltd, the utilization index fluctuates highly from 3.30 in 2011-12 to 1.40 in 2014-15 whereas the average utilization index in the Filtra consultant & engineers ltd is 1.50. The utilization index in Patdiam jewellery ltd increases from 0.58 in 2011-12 to 1.84 in 2014-15 and

Valiant Organic ltd Fixed asset index declines to 0.79 in 2014-15 whereas the average utilization index of fixed assets is 1.08. All selected sample manufacturing SMEs reflects effective utilisation as it is higher than 1.

Table - 6.6 : B) Fixed assets utilisation index of Service Sector

(Values in times)

Name/Financial year	2011-2012	2012-2013	2013-2014	2014-2015	AVG
DRA Consultants Pvt Ltd	1.09	0.98	1.13	1.66	1.21
Suyog Telematics ltd	1.16	0.34	0.59	0.96	0.76
Comfort Commotrade ltd	0.84	0.29	2.44	1.41	1.25
Jupiter info media ltd	1.00	0.99	0.31	0.15	0.61
Cawasji Behramji Catering services Ltd	1.32	1.45	1.28	0.68	1.18
Mitcon Consultancy & Engineering Services Ltd	0.89	0.71	0.85	1.13	0.90
Creative Peripherals and Distribution Limited	0.82	1.23	1.75	1.56	1.34
AVG	1.01	0.86	1.19	1.08	1.04

All the service sector SMEs are effectively utilising its fixed assets comparing to its sales except Suyog Telematics ltd and Jupiter info Media ltd which shows the average fixed asset index 0.76 and 0.61 respectively .This is due to both the SMEs have invested in fixed asset exorbitantly .

DRA Consultant Pvt.Ltd. depicts fluctuation in fixed asset index 1.09 in the year 2011-12 to 1.66 in 2014-15 whereas the average index is 1.21.

6.7 SPRINGATE MODEL

The Springate model was introduced by Gordon L V Springate in 1978. It's a revolution of the Altman Model (1968). It initially used 19 financial ratios to predict companies under financial distress. "After testing, Springate finally chose four financial ratios to be used to determine whether a company is said to be either healthy or potentially insolvent. Springate test shows the model has an accuracy of 92.5% Many researchers have used this model during various time frames and in various countries and have tested the accuracy of predicting the bankruptcy of companies in future and have found the accuracy to be more than 85%."¹⁰⁷

Springate continued Altman studies and the use of audit analytics for selecting 4appropriate financial ratios, which was included working capital to total assets, profit before interest and taxes to total assets, profit before tax to current debt, sale to total assets among the 19 ratio, which had the best ratio to identify healthy and bankrupt companies and after its tests, provided a model in 40 companies, which achieved to 92.5 percent correct predictions.

“For most of the bankrupt companies models predicted bankruptcy even four years before the actual bankruptcy occurring. There are some variations in accuracy of different models. The model that shows the best results when predicting the bankruptcy is Springate.”¹⁰⁸

It can be used as an early warning system to test the bankruptcy of companies in future. The formula for the model is given below:

$Z = 1.03X_1 + 3.07X_2 + 0.66X_3 + 0.4 X_4$ where X_1 = working capital/total assets

X_2 = PBIT/Total assets

X_3 = PBIT/ Current liabilities

X_4 = Sales/ Total assets

$Z < 0.862$ indicates possibility of bankruptcy.

The analysis for testing insolvency was done on all SMEs of manufacturing and Service Sector using the Springate Model. The four variables were computed year wise and then applying the formula above the Z score of all the companies was computed. Following were the Z scores:

Table - 6.7 : A)Comparative table Of Z score analysis of Sample SMEs in Manufacturing Sector of Maharashtra

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG
Bajaj Healthcare Ltd	0.727	0.613	0.602	0.771	1.035	0.750
Filtra consultants & engineers ltd	1.553	2.607	3.121	1.873	1.910	2.213
Ganga pharmaceuticals ltd	0.473	0.775	0.785	0.670	0.651	0.671
Valiant organic ltd	2.045	1.716	1.701	2.275	3.390	2.225
Patdiam jewellery ltd	1.015	0.877	0.863	0.863	1.060	0.936

Source – Computed

Bajaj Healthcare ltd has average score of 0.750 which is below the standard score of 0.862, it is approximately near the borderline of score. It is showing improving trend over the study period. Filtra consultant ltd is above the score in all the years of study period. Ganga pharmaceutical ltd is also showing the improving trend. Valiant organic ltd is greater than the

Score in the study period. Patdiam jewellery ltd is also has average 0.936 , higher than the score of 0.862 .

Table - 6.7 : B)Comparative table Of Z score analysis of Sample SMEs in Service Sector of Maharashtra

Name/Financial year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	AVG
DRA Consultants Pvt Ltd	2.689	1.800	1.710	1.662	1.937	1.959
Suyog Telematics ltd	0.652	0.750	0.286	0.333	0.991	0.603
Comfort Commotrade ltd	1.242	1.233	0.248	0.784	0.899	0.881
Jupiter info media ltd	0.498	0.308	0.588	0.095	0.272	0.352
Cawasji Behramji Catering services Ltd	1.498	1.558	1.443	1.283	0.908	1.338
Mitcon Consultancy & Engineering Services Ltd	3.524	3.428	2.133	2.398	1.736	2.644
Creative Peripherals and Distribution Limited	2.617	2.272	2.191	2.518	3.061	2.532

Source – Computed

DRA Consultant pvt ltd ,Cawasji Behramji catering services ltd ,Mitcon consultancy & engineering ltd,Creative Peripherals and distribution ltd have the higher than the score i.e 1.959,1.338,2.644,2.532 respectively. Suyog Telematics ltd , Jupiter info media ltd have the lower than score ,it also shows the improving trend over the study period.

Statistical Analysis

6.8 TESTING OF HYPOTHESIS USING KRUSKAL-WALLIS TEST

“Kruskal Wallis (KW) test is the non parametric equivalent to the omnibus F test in a one way ANOVA (which is used with matrix dependent variable). KW test is used when the dependent variable consist of ranks. It tests the null hypothesis that the location of each group is the same in the population. If the null hypothesis is rejected, then at least one of the locations is different from the others.”¹⁰⁹ “When the KW test is significant, perform follow up pair wise tests. It is a non-parametric test, an alternative to One way ANOVA, when the normality assumption fails to conduct parametric tests.”¹¹⁰

6.8.1 Testing of Hypothesis using Kruskal-Wallis Test of SMEs of Manufacturing Sector

Solvency position in Manufacturing sector

Table - 6.8.1 :A)Fixed asset to long term funds Ratio

Comparison of average Fixed asset to long term funds ratio across SMEs of manufacturing sector in Maharashtra during the years 2010-11 to 2015-16.				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	1.049	0.158	23	Value 21.26 df 4 P value 0.00
Filtra consultants & engineers ltd	0.089	0.036	3.6	
Ganga pharmaceuticals ltd	0.166	0.028	11	
Valiant organic ltd	0.439	0.072	18	
Patdiam jewellery ltd	0.149	0.029	9.4	

Source – Computed

Ho- Average Fixed Asset to long term funds ratio across SMEs within manufacturing sector of Maharashtra are alike.

Table reflects the average fixed asset to long term funds ratio within the sample of selected manufacturing SMEs of Maharashtra. Bajaj Healthcare ltd has the highest mean 1.049 followed by Valiant organic ltd 0.439, Ganga pharmaceutical ltd 0.166, Patdiam jewellery ltd 0.149. The lowest mean is of average Fixed asset ratio is of Filtra consultant & engineers ltd.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 21.26 with 4 degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Fixed Asset to long term funds Ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.1 :B) Debt to Asset Ratio

Comparison of average Debt to asset ratio across SMEs of manufacturing sector in Maharashtra
--

Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	0.128	0.022	18.8	Value 22.746 df 4 P value 0.00
Filtra consultants & engineers ltd	0*	-	5.5	
Ganga pharmaceuticals ltd	0.28	0.105	22.2	
Valiant organic ltd	0*	-	5.5	
Patdiam jewellery ltd	0.005	0.001	13	

Source – Computed

**Not applicable as Debt is zero*

H₀- Average Debt to Asset ratio across SMEs within manufacturing sector of Maharashtra are alike.

Table reflects the Debt asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultant and Valiant organic ltd has zero debt, assets of these SMEs are funded only by own fund.

Patdiam jewellery ltd has the lowest mean 0.005 followed Bajaj healthcare ltd 0.128. Ganga pharmaceutical ltd has the highest mean 0.28 of Debt asset ratio. Ganga pharmaceutical ltd has highest deviation of 0.104. Standard deviation shows there is a fluctuation in Debt asset ratio in all sample SMEs.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a significant difference within the sector. Test results have generated the Chi square value of 22.746 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Debt Asset Ratio of selected SMEs in Maharashtra.

Table - 6.8.1 :C) Degree of financial leverage

Comparison of Degree of financial leverage across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	1.049	.591	12.00	Value 22.590 df 4
Filtra consultants & engineers ltd	1.000	0E-7	11.00	

Ganga pharmaceuticals ltd	.334	.0228	3.00	P value 0
Valiant organic ltd	1.056	.0153	16.00	
Patdiam jewellery ltd	2.726	.257	23.00	

Source – Computed

H₀- Average Degree of financial leverage across SMEs within manufacturing sector of Maharashtra are alike.

Table reflects the Degree of financial leverage within the sample of selected manufacturing SMEs of Maharashtra. Patdiam jewellery ltd has the highest mean 2.726, followed by Valiant organic ltd 1.056 , Bajaj Health Care Ltd 1.049. The lowest mean is of average Fixed asset ratio is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 22.590 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Degree of financial leverage across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.1 : D)Solvency position in Manufacturing sector

Comparison of solvency position across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.742	.177	18.60	Value 22.590 df 4 P value 0
Filtra consultants & engineers ltd	.363	.012	8.00	
Ganga pharmaceuticals ltd	.262	.030	3.00	
Valiant organic ltd	.498	.027	13.00	
Patdiam jewellery ltd	.960	.083	22.40	

Source – Computed

Ho- Average value of solvency of SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the solvency position within the sample of selected manufacturing SMEs of Maharashtra. Patdiam jewellery ltd has the highest mean 0.960, followed by Bajaj Healthcare Ltd 0.742, valiant organic ltd 0.498, filtra consultants &engineers ltd. The lowest mean of solvency, is of Ganga pharmaceutical ltd 0.261.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 22.590 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average value of solvency across selected SMEs within manufacturing sector of Maharashtra.

6.8.2 Liquidity Position in Manufacturing Sector

Table - 6.8.2 : A) Current ratio

Comparison of average current ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.879	.036	3.00	Value 14.540 df 4 P value .006
Filtra consultants & engineers ltd	1.608	.308	11.40	
Ganga pharmaceuticals ltd	2.537	1.105	18.80	
Valiant organic ltd	2.171	.598	17.40	
Patdiam jewellery ltd	1.756	.091	14.40	

Source – Computed

H₀- Average current ratio across SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average current ratio within the sample of selected manufacturing SMEs of Maharashtra. Ganga pharmaceuticals ltd has the highest mean 2.537, followed by Valiant organic ltd 2.171 , Patdiam jewellery Ltd 1.756. The lowest mean of average current ratio is of Bajaj Healthcare ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 14.540 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Degree of financial leverage across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.2 :B) Quick Ratio

Table 6.8.2 B) Comparison of average quick ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.635	.064	3.00	Value 13.706 df 4 P value .008
Filtra consultants & engineers ltd	1.136	.183	12.00	
Ganga pharmaceuticals ltd	1.354	.519	15.20	
Valiant organic ltd	1.651	.561	18.80	
Patdiam jewellery ltd	1.165	.078	16.00	

Source – Computed

Ho- Average quick ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average current ratio within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 1.651, followed by Ganga pharmaceuticals ltd 1.354, Patdiam jewellery Ltd 1.165. The lowest mean of average current ratio is of Bajaj Healthcare ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 13.706 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average current ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.2 :C) Cash to current Asset

Comparison of average cash to current asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.008	.005	3.60	Value 17.664 df 4 P value .001
Filtra consultants & engineers ltd	.185	.014	21.20	
Ganga pharmaceuticals ltd	.063	.029	13.40	
Valiant organic ltd	.116	.084	17.60	
Patdiam jewellery ltd	.037	.041	9.20	

Source – Computed

Ho- Average cash to current asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average cash to current asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 0.185, followed by Valiant organic ltd 0.116, Ganga pharmaceuticals ltd 0.063. The lowest mean of average cash to current asset ratio is of Bajaj Healthcare ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 17.664 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average cash to current asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.2 :D) Current asset to total Asset Ratio

Comparison of Current asset to total Asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.543	.032	13.00	Value 21.940 df 4 P value .000
Filtra consultants & engineers ltd	.941	.021	23.00	
Ganga pharmaceuticals ltd	.456	.026	5.80	
Valiant organic ltd	.440	.053	5.20	
Patdiam jewellery ltd	.872	.023	18.00	

Source – Computed

Ho- Average current asset to total asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Current asset to total Assetratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 0.941, followed by Patdiam jewellery ltd 0.872, Bajaj Healthcare Ltd 0.543. The lowest mean of average Current asset to total Asset ratio is of Valiant organic ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 21.940 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Current asset to total Asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.2 :E) Liquid asset to Current asset ratio

Comparison of average liquid asset to current asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.724	.058	16.40	Value 12.805 df 4 P value .012
Filtra consultants & engineers ltd	.713	.063	15.40	
Ganga pharmaceuticals ltd	.549	.062	4.00	
Valiant organic ltd	.752	.072	18.80	
Patdiam jewellery ltd	.663	.022	10.40	

Source – Computed

Ho- Average current asset to total asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average liquid asset to current asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.751, followed by Bajaj Healthcare Ltd 0.724, Filtra consultants & engineers Ltd 0.712. The lowest mean of average liquid asset to current asset ratio is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 12.805 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average liquid asset to current asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.2 :F) Overall Liquidity position

Comparison of average value of liquidity across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result

Bajaj Healthcare Ltd	.557	.032	3.00	Value 11.911
Filtra consultants & engineers ltd	.917	.089	15.20	df 4
Ganga pharmaceuticals ltd	.992	.314	14.20	P value .018
Valiant organic ltd	1.026	.232	17.00	
Patdiam jewellery ltd	.899	.033	15.60	

Source – Computed

Ho- Average value of liquidity SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average value of liquidity within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 1.026, followed by Ganga pharmaceuticals ltd 0.992, Filtra consultants & engineers ltd 0.917. The lowest mean of average value of liquidity is of Bajaj Healthcare Ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 11.911 with the degree of freedom 4. The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected. This table reflects that there exists a significant difference between the average value of liquidity across selected SMEs within manufacturing sector of Maharashtra.

6.8.3 Working Capital Position in Manufacturing Sector

Table - 6.8.3 :A) Working capital Turnover ratio

Table 6.8.3 A) Comparison of average Working capital Turnover ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	-19.791665	12.2420782	3.00	Value 21.305
Filtra consultants & engineers ltd	8.763153	2.5371058	22.60	df 4
Ganga pharmaceuticals ltd	2.423598	1.3783905	10.40	P value 0
Valiant organic ltd	5.921223	1.2004107	18.20	
Patdiam jewellery ltd	2.197540	.5924963	10.80	

Source – Computed

H₀- Average Working capital Turnover ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Working capital Turnover ratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 8.763, followed by Valiant organic ltd 5.921, Ganga pharmaceuticals ltd 2.423. The lowest mean of average Working capital Turnover ratio is of Bajaj Healthcare Ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 21.305 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected. This table reflects that there exists a significant difference between the average Working capital Turnover ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.3 : B) Average Sales to current asset ratio

Table 6.8.3 B) Comparison of average Sales to current asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	2.402136	.2068333	15.00	Value 18.617 df 4 P value 0.001
Filtra consultants & engineers ltd	3.072460	.9769727	19.80	
Ganga pharmaceuticals ltd	1.041938	.1433860	6.00	
Valiant organic ltd	2.939269	.5139260	19.20	
Patdiam jewellery ltd	.941071	.2492414	5.00	

Source – Computed

H₀- Average Sales to current asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Sales to current asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 3.072, followed by Valiant organic ltd 2.939, Bajaj Healthcare Ltd 2.402. The lowest mean of average Sales to current asset ratio is of Patdiam jewellery ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 18.617 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Sales to current asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.3 : C) Debtors turnover ratio

Comparison of average Debtors turnover ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard	Mean	Chi-Square

		Deviation	Rank	Result
Bajaj Healthcare Ltd	4.100004	.3487473	14.20	Value 18.174 df 4 P value .001
Filtra consultants & engineers ltd	6.950763	2.4897969	20.40	
Ganga pharmaceuticals ltd	2.990798	.9890259	8.60	
Valiant organic ltd	4.902690	.5009803	18.40	
Patdiam jewellery ltd	1.538505	.3623749	3.40	

Source – Computed

Ho- Average Debtors turnover ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Debtors turnover ratio within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 6.951, followed by Valiant organic ltd 4.902, Bajaj Healthcare Ltd 4.100. The lowest mean of average Sales to current asset ratio is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 18.174 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Debtors turnover ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.3 : D) Credit strength ratio

Comparison of average Credit strength ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	2.670	.4976931	22.20	Value 19.532 df 4 P value 0.001
Filtra consultants & engineers ltd	1.693527	.9535081	17.40	
Ganga pharmaceuticals ltd	.446667	.2532940	5.80	
Valiant organic ltd	.406282	.1502973	5.60	
Patdiam jewellery ltd	1.007470	.1261520	14.00	

Source – Computed

H₀- Average Credit strength ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Credit strength ratio within the sample of selected manufacturing SMEs of Maharashtra. Bajaj Healthcare Ltd has the highest mean 2.670, followed by Filtra consultants & engineers ltd 1.694, Patdiam jewellery ltd 1.007. The lowest mean of average Sales to current asset ratio is of Valiant organic ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 19.532 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Credit strength ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.3 :E) Overall Working capital position in SMEs of manufacturing sector

Comparison of average Working capital across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	-2.654935	3.0460309	3.00	Value 22.058 df 4 P value 0
Filtra consultants & engineers ltd	5.120	.9111138	22.80	
Ganga pharmaceuticals ltd	1.725750	.3536625	11.80	
Valiant organic ltd	3.542366	.3694661	18.20	
Patdiam jewellery ltd	1.421146	.2974596	9.20	

Source – Computed

Ho- Average Working capital SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Working capital within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 5.120, followed by Valiant organic ltd 3.542, Ganga pharmaceuticals ltd 1.421. The lowest mean of average Sales to current asset ratio is of Bajaj Healthcare Ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 22.058 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Working capital across selected SMEs within manufacturing sector of Maharashtra.

6.8.4 Net Profit Ratio

Table - 6.8.4 : A) Net profit ratio

Comparison of average Net profit ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.051561	.0166298	16.00	Value 20.706 df 4 P value 0.01
Filtra consultants & engineers ltd	.048153	.0262681	14.40	
Ganga pharmaceuticals ltd	.009226	.0044458	3.60	
Valiant organic ltd	.137937	.0337912	23.00	
Patdiam jewellery ltd	.021417	.0074646	8.00	

Source – Computed

H₀- Average Net profit ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Net profit ratio within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.138, followed by Bajaj Healthcare Ltd 0.0512, Filtra consultants & engineers ltd 0.048. The lowest mean of average Net profit ratio is of Valiant organic ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 20.706 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Net profit ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.4 :B) Return on capital employed

Comparison of average Return on capital employed across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.203867	.0923210	12.20	Value 18.816 df 4 P value 0
Filtra consultants & engineers ltd	.500995	.2629077	20.20	
Ganga pharmaceuticals ltd	.094098	.0146925	3.40	
Valiant organic ltd	.373489	.0612616	19.80	
Patdiam jewellery ltd	.123256	.0108102	9.40	

Source – Computed

Ho- Average Return on capital employed SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Return on capital employed within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 0.501, followed by Valiant organic ltd 0.373, Bajaj Healthcare Ltd 0.204. The lowest mean of average Return on capital employed is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 18.816 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Return on capital employed across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.4 : C) Return on assets

Comparison of average Return on assets across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.066601	.0191586	13.60	Value 21.260 df 4 P value 0.046
Filtra consultants & engineers ltd	.128415	.0507513	19.40	
Ganga pharmaceuticals ltd	.004474	.0022794	3.00	
Valiant organic ltd	.175813	.0457325	21.00	
Patdiam jewellery ltd	.016509	.0041656	8.00	

Source – Computed

Ho- Average Return on assets SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Return on assets within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.176, followed by Filtra consultants & engineers ltd 0.128, Bajaj Healthcare Ltd 0.067. The lowest mean of average Return on assets is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 21.260 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Return on assets across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.4 :D) Return on Net worth

Comparison of average Return on Net worth across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.332496	.0892779	10.80	Value 14.348 df 4 P value 0.046
Filtra consultants & engineers ltd	.500995	.2629077	17.00	
Ganga pharmaceuticals ltd	.437359	.0383838	16.40	
Valiant organic ltd	.486826	.1244300	17.80	
Patdiam jewellery ltd	.045535	.0059897	3.00	

Source – Computed

Ho- Average Return on Net worth SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Return on Net worth within the sample of selected manufacturing SMEs of Maharashtra. Filtra consultants & engineers ltd has the highest mean 0.501, followed by Valiant organic ltd 0.487, Ganga pharmaceuticals ltd 0.437. The lowest mean of average Return on Net worth is of Bajaj Healthcare Ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 14.348 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Return on Net worth across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.4 : E) Return on asset ratio

Comparison of average Return on asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.051561	.0166298	16.00	Value 20.706 df 4 P value 0
Filtra consultants & engineers ltd	.048153	.0262681	14.40	
Ganga pharmaceuticals ltd	.009226	.0044458	3.60	
Valiant organic ltd	.137937	.0337912	23.00	
Patdiam jewellery ltd	.021417	.0074646	8.00	

Source – Computed

Ho- Average Return on asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Return on asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.138, followed by Bajaj Healthcare Ltd 0.0512, Filtra consultants & engineers ltd 0.048. The lowest mean of average Return on asset ratio is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 20.706 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Return on asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.4 : F) Overall Profitability

Comparison of average Profitability across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.141217	.0261559	13.80	Value 18.646 df 4 P value 0.01
Filtra consultants & engineers ltd	.245342	.1210837	18.40	
Ganga pharmaceuticals ltd	.110876	.0078481	9.20	
Valiant organic ltd	.262401	.0588362	20.60	
Patdiam jewellery ltd	.045627	.0029376	3.00	

Source – Computed

Ho- Average Profitability SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Profitability within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.262, followed by Filtra consultants & engineers ltd 0.245, Bajaj Healthcare Ltd 0.141. The lowest mean of average Profitability is of Ganga pharmaceuticals ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 18.646 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Profitability across selected SMEs within manufacturing sector of Maharashtra.

6.8.5 Capital Structure

Table - 6.8.5 :A) Debt equity ratio

Comparison of average Debt equity ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	1.861419	.3421715	23.00	Value 22.140 df 4 P value 0.00
Filtra consultants & engineers ltd	0.00	0E-7	3.00	
Ganga pharmaceuticals ltd	.819871	.1119717	16.00	
Valiant organic ltd	.191613	.1243971	8.00	
Patdiam jewellery ltd	.810460	.0779373	15.00	

Source – Computed

H₀- Average Debt equity ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Debt equity ratio within the sample of selected manufacturing SMEs of Maharashtra. Bajaj Healthcare Ltd has the highest mean 1.861, followed by Ganga pharmaceuticals ltd 0.820, Patdiam jewellery ltd 0.810. The lowest mean of average

Debt equity ratio is of Filtra consultants & engineers ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 22.140 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Debt equity ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.5 :B) Proprietary ratio

Comparison of average Proprietary ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.236747	.0285754	3.40	Value 14.156 df 4 P value 0.07
Filtra consultants & engineers ltd	.416166	.1395109	12.80	
Ganga pharmaceuticals ltd	.492912	.0311492	13.40	
Valiant organic ltd	.544541	.0326781	20.60	
Patdiam jewellery ltd	.497355	.0311981	14.80	

Source – Computed

Ho- Average Proprietary ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Proprietary ratio within the sample of selected manufacturing SMEs of Maharashtra. Valiant organic ltd has the highest mean 0.545, followed by Patdiam jewellery ltd 0.497, Ganga pharmaceuticals ltd 0.493. The lowest mean of average Proprietary ratio is of Bajaj Healthcare Ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 14.156 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Proprietary ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.5 :C) Total debt to asset ratio

Comparison of average Total debt to asset ratio across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.433173	.0330276	20.20	Value 19.282 df 4 P value 0.01
Filtra consultants & engineers ltd	.000000	0E-7	3.00	
Ganga pharmaceuticals ltd	.401632	.0372103	17.00	
Valiant organic ltd	.102559	.0646310	8.00	
Patdiam jewellery ltd	.402073	.0331619	16.80	

Source – Computed

H₀- Average Total debt to asset ratio SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average Total debt to asset ratio within the sample of selected manufacturing SMEs of Maharashtra. Bajaj Healthcare Ltd has the highest mean 0.433, followed by Patdiam jewellery ltd 0.402, Ganga pharmaceuticals ltd 0.141. The lowest mean of average Total debt to asset ratio is of Filtra consultants & engineers ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 19.282 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Total debt to asset ratio across selected SMEs within manufacturing sector of Maharashtra.

Table - 6.8.5 :D) Capital Structure

Table 6.8.5 D) Comparison of average Capital structure across SMEs of manufacturing sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
Bajaj Healthcare Ltd	.506	.070	23.00	Value 21.940 df 4 P value 0.00
Filtra consultants & engineers ltd	.083	.028	3.00	
Ganga pharmaceuticals ltd	.343	.024	15.80	
Valiant organic ltd	.168	.035	8.00	
Patdiam jewellery ltd	.342	.020	15.20	

Source – Computed

H₀- overall capital structure of SMEs within manufacturing sector of Maharashtra is alike.

Table reflects the average overall capital structure within the sample of selected manufacturing SMEs of Maharashtra. Bajaj Healthcare Ltd has the highest mean 0.506, followed by Ganga pharmaceuticals ltd 0.343. The lowest mean of average capital structure is of Filtra consultants & engineers ltd.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 21.940 with the degree of freedom 4.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average capital structure across selected SMEs within manufacturing sector of Maharashtra.

6.9 SERVICE SECTOR

6.9.1 Solvency Analysis

Table - 6.9.1 : A) Fixed Asset to long term funds Ratio of Service sector of SMEs in Maharashtra

Comparison of average Fixed asset to long term funds ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.133	.0499	13.00	Value 28.857 df P value .000
Suyog Telematics ltd	.585	.219	31.00	
Comfort Commotrade ltd	.325	.110	23.00	
Jupiter info media ltd	.033	.0222	4.40	
Cawasji Behramji Catering services Ltd	.353	.137	24.20	
Mitcon Consultancy & Engineering Services Ltd	.316	.0516	23.80	
Creative Peripherals and Distribution Limited	.0488	.0190	6.60	

Source – Computed

H₀- Average Fixed Asset to long term funds ratio across SMEs within service sector of Maharashtra are alike.

Table reflects the average fixed asset ratio within the sample of selected service SMEs of Maharashtra. Suyog Telematics ltd has the highest mean 0.585 followed by Cawasji Behramji Catering service ltd 0.353 , Mitcon Consultancy & Engineering service ltd 0.316 ,DRA Consultancy pvt ltd0.1333 .The lowest mean is of average Fixed asset ratio is of Jupiter info Media ltd i.e 0.033 .

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 28.857 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Fixed Asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.1 :B) Long term Debt to Total Asset Ratio of Service sector of SMEs in Maharashtra

Comparison of average Long term Debt to Total Asset Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.030	.0364	19.80	Value 22.881 df 6 P value 0.001
Suyog Telematics ltd	.064	.094	18.00	
Comfort Commotrade ltd	.000*	-	7.00	
Jupiter info media ltd	.000*	-	7.00	
Cawasji Behramji Catering services Ltd	.0168	.010	18.40	
Mitcon Consultancy & Engineering Services Ltd	.058	.022	25.20	
Creative Peripherals and Distribution Limited	.105	.021	30.60	

Source – Computed

**Not applicable as long term borrowed fund is zero*

Ho- Average Long Debt to Total Asset ratios across SMEs within service sector of Maharashtra are alike.

Table reflects the average Long Debt to Total Asset ratio within the sample of selected service SMEs of Maharashtra. Creative Peripherals and Distribution Ltd has the highest mean 0.105 followed by Suyog Telematics ltd 0.064 ,Mitcon Consultancy & Engineering service ltd of average mean 0.058, DRA Consultancy pvt ltd 0.030, Cawasji Behramji Catering service ltd 0.0168. Jupiter info Media ltd and Comfort Commotrade ltd have zero long term Borrowed fund hence mean shows zero.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 22.881 with the six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Long term Debt to Total Asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.1 : C) Degree of Financial leverage of Service sector of SMEs in Maharashtra

Comparison of average Degree of Financial leverage across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	0.975	0.196	24.2	Value 21.840 *df - 6 P value 0.001
Suyog Telematics ltd	1.428	0.462	26	
Comfort Commotrade ltd	0.851	0.336	16	
Jupiter info media ltd	1.143	0.178	24.6	
Cawasji Behramji Catering services Ltd	0.403	0.077	8	
Mitcon Consultancy & Engineering Services Ltd	1.007	0.002	22.8	
Creative Peripherals and Distribution Limited	0.282	0.235	4.4	

Source – Computed

H₀- Average Degree of Financial leverage across SMEs within service sector of Maharashtra are alike.

Table reflects the average degree of financial leverage within the sample of selected service SMEs of Maharashtra. Suyog Telematics ltd has the highest mean 1.428 followed by Jupiter info Media ltd by 1.143, Mitcon Consultancy & Engineering service ltd of average mean 1.007, DRA Consultancy pvt ltd 0.975, Comfort Commotrade ltd 0.875 Cawasji Behramji Catering service ltd 0.403. Creative Peripherals and Distribution Limited is on least ladder with 0.282.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the service sector of SMEs. Test results have generated the Chi square value of 21.840 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average degree of leverage across selected SMEs within service sector of Maharashtra.

Table - 6.9.1 :D) Overall Solvency of Service sector of SMEs in Maharashtra

Comparison of solvency across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.380	.043	16.20	Value 25.592 *df - 6 P value 0.00
Suyog Telematics ltd	.694	.235	30.60	
Comfort Commotrade ltd	.392	.128	21.40	
Jupiter info media ltd	.392	.059	18.40	
Cawasji Behramji Catering services Ltd	.258	.065	8.80	
Mitcon Consultancy & Engineering Services Ltd	.460	.024	26.80	
Creative Peripherals and Distribution Limited	.145	.088	3.80	

Source – Computed

Ho- Overall solvency across SMEs within service sector of Maharashtra are alike.

Table reflects the overall solvency within the sample of selected service SMEs of Maharashtra. Suyog Telematics ltd has the highest mean 0.694 followed by Mitcon Consultancy & Engineering service ltd of average mean 0.460 .Jupitor info Media ltd and Comfort Commotrade ltd reflects the similar solvency of 0.392 .DRA Consultancy pvt ltd 0.380 and Cawasji Behramji Catering service ltd 0.258.Creative Peripherals and Distribution Limited is on least ladder with 0.145.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the service sector of SMEs. Test results have generated the Chi square value of 25.592 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average solvency across selected SMEs within service sector of Maharashtra.

6.9.2 Liquidity analysis

Table - 6.9.2 :A) Current ratio of Service sector of SMEs in Maharashtra

Comparison of average Current ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	2.306	.425	25.80	Value 23.577 *df - 6 P value 0.001
Suyog Telematics ltd	.880	.398	6.00	
Comfort Commotrade ltd	2.097	.709	23.00	
Jupiter info media ltd	1.626	1.054	16.80	
Cawasji Behramji Catering services Ltd	1.153	.0685	8.40	
Mitcon Consultancy & Engineering Services Ltd	3.567	1.586	30.80	
Creative Peripherals and Distribution Limited	1.419	.0712	15.20	

Source – Computed

Ho- Average Current ratio across SMEs within service sector of Maharashtra are alike.

Table reflects the average Current ratio within the sample of selected service SMEs of Maharashtra. Mitcon Consultancy & Engineering service ltd has the highest mean 3.567 followed by DRA Consultancy Pvt ltd 2.306 , Comfort Commotrade 2.097, Jupiter info Media ltd 1.626 ,Cawasji Behramji Catering service ltd 1.153, Creative Peripherals and Distribution Limited 1.419.The lowest mean is of average Current asset ratio is of Suyog Telematics ltd i.e 0.880 which is lower than the industrial ratio.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 23.577 with the six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Current Asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.2 :B) Quick ratio

Comparison of average Degree of Quick ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	2.303	.425	26.00	Value 23.714 *df - 6 P value 0.001
Suyog Telematics ltd	.805	.376	7.80	
Comfort Commotrade ltd	2.097	.709	23.60	
Jupiter info media ltd	1.626	1.055	17.80	
Cawasji Behramji Catering services Ltd	1.065	.041	13.60	
Mitcon Consultancy & Engineering Services Ltd	3.535	1.585	30.40	
Creative Peripherals and Distribution Limited	.764	.133	6.80	

Source – Computed

H₀- Average Quick ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the average Quick ratio within the sample of selected service SMEs of Maharashtra. Mitcon Consultancy & Engineering service ltd has the highest mean 3.535 followed by DRA Consultancy Pvt ltd 2.303 , Comfort Commotrade 2.097, Jupiter info Media ltd 1.626 , Cawasji Behramji Catering service ltd 1.065, Suyog Telematics ltd 0.805 The lowest mean is of average quick ratio is of i.e 0.764 Creative Peripherals and Distribution Limited.

The significance of mean difference is tested using Kruskal Wallis test, which is a non parametric test. It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 23.714 with the six degree of freedom .

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Quick Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.2 :C) Cash to current asset

Comparison of average cash to current ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.096	.093	13.60	Value 27.082 *df - 6 P value 0.00
Suyog Telematics ltd	.021	.0178	4.80	
Comfort Commotrade ltd	1.208	1.178	30.60	
Jupiter info media ltd	.151	.082	20.40	
Cawasji Behramji Catering services Ltd	.075	.0364	15.20	
Mitcon Consultancy & Engineering Services Ltd	.914	.515	30.40	
Creative Peripherals and Distribution Limited	.054	.009	11.00	

Source – Computed

Ho- Average Cash to current asset ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the average Cash to current asset ratio within the sample of selected service SMEs of Maharashtra. Comfort Commotrade ltd has the highest mean 1.208 followed by Mitcon Consultancy & Engineering service ltd 0.914, Jupiter info Media ltd i.e 0.151, DRA Consultancy pvt ltd .096 Cawasji Behramji Catering service ltd 0.075 , Creative Peripherals and Distribution Limited 0.054 .The lowest mean is of average Cash to current asset ratio is of Suyog Telematics ltd i.e 0.021 .

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 27.082 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average Cash to current asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.2 :D) Current asset to total asset

Comparison of average current asset to total asset across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.740	.151	21.80	Value 29.756 *df - 6 P value 0.00
Suyog Telematics ltd	.443	.221	14.20	
Comfort Commotrade ltd	.287	.287	9.40	
Jupiter info media ltd	.095	.069	3.80	
Cawasji Behramji Catering services Ltd	.901	.055	27.60	
Mitcon Consultancy & Engineering Services Ltd	.540	.096	16.20	
Creative Peripherals and Distribution Limited	.984	.006	33.00	

Source – Computed

Ho- Average Current asset to total asset across SMEs of Service sector in Maharashtra are alike.

Table reflects the average current asset to total asset ratio within the sample of selected service SMEs of Maharashtra. Creative Peripherals and Distribution Limited has the highest mean 0.984 followed by Cawasji Behramji Catering service ltd 0.901, DRA Consultancy pvt ltd .740 Mitcon Consultancy & Engineering service ltd 0.540 Suyog Telematics ltd 0.443 , Comfort Commotrade ltd ,Jupitor info Media ltd has the lowest mean is of average current asset to total asset ratio.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 29.756 with the six degree of freedom .

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the average current assets to total asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.2 :E) Liquid asset to Current Asset ratio

Comparison of average Liquid asset to current asset ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	1.0	-	28.00	Value 32.396 *df - 6 P value 0.00
Suyog Telematics ltd	.914	.0435	10.40	
Comfort Commotrade ltd	1.0	-	28.00	
Jupiter info media ltd	1.0	-	28.00	
Cawasji Behramji Catering services Ltd	.925	.048	11.40	
Mitcon Consultancy & Engineering Services Ltd	.990	.007	17.20	
Creative Peripherals and Distribution Limited	.537	.074	3.00	

Source – Computed

Ho- Average Liquid asset to current asset across SMEs of Service sector in Maharashtra are alike.

Table reflects the average Liquid asset to Current Asset ratio within the sample of selected service SMEs of Maharashtra. The average Liquid asset to Current Asset of DRA Consultancy pvt ltd, Creative Peripherals and Jupiter info Media ltd has equal i.e 1.00. , followed by Mitcon Consultancy & Engineering service ltd has 0.990, Cawasji Behramji Catering service ltd 0.925.

Distribution Limited and Suyog Telematics ltd has lowest mean is of average Liquid asset to current asset is 0.914.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 32.396 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the average Liquid assets to Current Asset ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.2 : F) Liquidity

Comparison of overall average Liquidity ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	1.289	.184	24.60	Value 25.299 *df - 6 P value 0.00
Suyog Telematics ltd	.613	.182	6.20	
Comfort Commotrade ltd	1.339	.327	25.80	
Jupiter info media ltd	.900	.422	15.00	
Cawasji Behramji Catering services Ltd	.824	.027	14.20	
Mitcon Consultancy & Engineering Services Ltd	1.909	.591	31.40	
Creative Peripherals and Distribution Limited	.752	.0541	8.80	

Source – Computed

H₀- Average Liquidity ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average liquidity within the sample of selected service SMEs of Maharashtra. The highest average overall liquidity of Mitcon Consultancy & Engineering service ltd 1.909, followed by Comfort Commotrade ltd 1.339, DRA Consultancy pvt ltd 1.289, Jupiter info Media ltd 0.900, Cawasji Behramji Catering service ltd 0.824.

Creative Peripherals and has equal i.e 1.00. Suyog Telematics ltd has lowest mean of 0.613.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 25.299 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the overall liquidity across selected SMEs within service sector of Maharashtra.

6.9.3 Working Capital

Table - 6.9.3 :A)Working Capital Turnover Ratio

Comparison of average Working Capital Turnover ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	3.042	1.191	16.60	Value 22.488 *df - 6 P value 0.01
Suyog Telematics ltd	-2.326	9.264	11.00	
Comfort Commotrade ltd	2.669	1.670	15.00	
Jupiter info media ltd	.870	4.375	12.60	
Cawasji Behramji Catering services Ltd	23.669	25.011	29.20	
Mitcon Consultancy & Engineering Services Ltd	1.263	.638	9.80	
Creative Peripherals and Distribution Limited	16.317	.890	31.80	

Source – Computed

Ho- Average Working Capital Turnover ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the average Working Capital Turnover Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Working Capital Turnover Ratio of Cawasji Behramji Catering service ltd 23.669, Creative Peripherals and Distribution Limited is 16.317, DRA Consultancy pvt ltd is 3.042, Comfort Commotrade ltd is 2.669, Mitcon Consultancy & Engineering service ltd 1.263, Jupitor info Media ltd .870 ,

Suyog Telematics ltd has lowest mean of -2.326.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 22.488 with the six degree of freedom .

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the Working Capital Turnover Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.3 :B)Sales to current asset ratio

Comparison of average Sales to current asset ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	1.661	.665	13.00	Value 15.177 *df - 6 P value 0.019
Suyog Telematics ltd	1.426	.514	12.00	
Comfort Commotrade ltd	1.559	.362	13.60	
Jupiter info media ltd	1.711	.458	16.00	
Cawasji Behramji Catering services Ltd	2.104	.590	21.00	
Mitcon Consultancy & Engineering Services Ltd	1.967	.984	17.40	
Creative Peripherals and Distribution Limited	4.809	.746	33.00	

Source – Computed

H₀- Average Sales to current asset ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Sales to current asset Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Sales to current asset Ratio of Creative Peripherals and Distribution Limited 4.809, Cawasji Behramji Catering service ltd 2.104, Mitcon Consultancy & Engineering service ltd 1.967, Jupiter info Media ltd 1.711, DRA Consultancy pvt ltd is 1.661, Comfort Commotrade ltd is 1.559,

Suyog Telematics ltd has lowest mean of 1.426.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 15.177 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between Sales to current asset ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.3 :C) Debtors Turnover Ratio

Comparison of average Debtors Turnover Ratio across SMEs of Service sector in Maharashtra

Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	2.896	2.144	7.80	Value 26.910 *df - 6 P value 0
Suyog Telematics ltd	6.062	2.144	18.80	
Comfort Commotrade ltd	35.613	15.633	32.60	
Jupiter info media ltd	10.667	9.258	21.60	
Cawasji Behramji Catering services Ltd	2.764	.711	8.20	
Mitcon Consultancy & Engineering Services Ltd	3.214	1.029	10.20	
Creative Peripherals and Distribution Limited	12.429	1.938	26.80	

Source – Computed

H₀- Average Debtors Turnover Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Debtors Turnover Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Debtors Turnover Ratio of Comfort Commotrade Ltd is 35.613, Creative Peripherals and Distribution Limited 12.429, Jupiter info Media Ltd 10.667, Suyog Telematics Ltd 6.062, Mitcon Consultancy & Engineering service Ltd 3.214, DRA Consultancy pvt Ltd is 2.896.

Cawasji Behramji Catering service Ltd has lowest mean of 2.764.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 26.910 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Debtors Turnover Ratio across selected SMEs within service sector of Maharashtra .

Table - 6.9.3 :D) Credit Strength Ratio

Comparison of average Credit Strength Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.556	.289	17.20	Value 31.237

Suyog Telematics ltd	1.508	.787	22.80	*df - 6 P value 0.00
Comfort Commotrade ltd	.374	.134	14.40	
Jupiter info media ltd	.074	.0410	4.60	
Cawasji Behramji Catering services Ltd	3.146	.509	31.30	
Mitcon Consultancy & Engineering Services Ltd	.118	.044	6.40	
Creative Peripherals and Distribution Limited	2.862	.404	29.30	

Source – Computed

Ho- Average Credit Strength Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Credit Strength Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Credit Strength Ratio of Cawasji Behramji Catering service ltd 3.146, Creative Peripherals and Distribution Limited is 2.862, Suyog Telematics ltd is 1.508, DRA Consultancy pvt ltd is .556, Comfort Commotrade ltd is 0.374, 10.667, 6.062, Mitcon Consultancy & Engineering service ltd 0.118.

Jupitor info Media ltd has lowest mean of 0.074.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 26.910 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Credit Strength Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.3 :E) Working capital

Comparison of average Working capital across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	2.039	.897	9.00	Value 26.587 *df - 6 P value 0
Suyog Telematics ltd	1.668	1.994	10.40	
Comfort Commotrade ltd	10.054	4.267	29.20	
Jupiter info media ltd	3.330	1.406	15.60	

Cawasji Behramji Catering services Ltd	7.921	6.422	24.40
Mitcon Consultancy & Engineering Services Ltd	1.640	.659	7.60
Creative Peripherals and Distribution Limited	9.104	.792	29.80

Source – Computed

Ho- Average Working capital across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Working capital within the sample of selected service SMEs of Maharashtra. The highest average overall Working capital Ratio of Comfort Commotrade ltd is , Creative Peripherals and Distribution Limited is , Cawasji Behramji Catering service ltd , Jupiter info Media ltd , DRA Consultancy pvt ltd is , Suyog Telematics ltd is 1.508, .556, 0.374, 10.667, 6.062, 0.118.

Jupiter info Media ltd has lowest mean of 0.074.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 26.910 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Working capital across selected SMEs within service sector of Maharashtra.

6.9.4 Profitability Analysis

Table - 6.9.4 : A) Net Profit Ratio

Comparison of average Net Profit Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.134	.008	24.80	Value 21.950 *df - 6 P value 0.001
Suyog Telematics ltd	.109	.031	20.20	
Comfort Commotrade ltd	.131	.096	21.20	
Jupiter info media ltd	.134	.110	21.00	
Cawasji Behramji Catering services Ltd	.033	.0141	8.80	

Mitcon Consultancy & Engineering Services Ltd	.163	.048	27.00	
Creative Peripherals and Distribution Limited	.006	.004	3.00	

Source – Computed

Ho- Average Degree of Net Profit Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Net Profit Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Net Profit Ratio of Mitcon Consultancy & Engineering service ltd 0.163, DRA Consultancy pvt ltd is 0.134, Jupiter info Media ltd 0.134, Comfort Commotrade ltd is 0.131, Suyog Telematics ltd is 0.109, Cawasji Behramji Catering service ltd 0.033.

Creative Peripherals and Distribution Limited has lowest mean of 0.006.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 21.950 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the Net Profit Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.4 : B) Return on capital employed

Comparison of average Return on capital employed across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.371	.092	25.20	Value 23.421 *df - 6 P value 0.001
Suyog Telematics ltd	.304	.121	18.80	
Comfort Commotrade ltd	.199	.113	13.80	
Jupiter info media ltd	.0200	.012	3.00	
Cawasji Behramji Catering services Ltd	.514	.165	30.60	
Mitcon Consultancy & Engineering Services Ltd	.175	.113	13.00	
Creative Peripherals and Distribution	.314	.0583	21.60	

Limited				
---------	--	--	--	--

Source – Computed

Ho- Average Return on capital employed across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Return on capital employed within the sample of selected service SMEs of Maharashtra. The highest average overall Return on capital employed of Cawasji Behramji Catering service ltd 0.514, DRA Consultancy pvt ltd is 0.371, Creative Peripherals and Distribution Limited is 0.314, Suyog Telematics ltd is .304, Comfort Commotrade ltd is 0.199, Mitcon Consultancy & Engineering service ltd 0.175.

Jupiter info Media ltd has lowest mean of 0.020.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 23.421 with the six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Return on capital employed across selected SMEs within service sector of Maharashtra.

Table - 6.9.4 : C) Return on Asset

Comparison of average Degree of Return on Asset across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.156	.042	31.00	Value 27.451 *df - 6 P value 0
Suyog Telematics ltd	.059	.017	18.40	
Comfort Commotrade ltd	.038	.020	13.00	
Jupiter info media ltd	.013	.006	4.40	
Cawasji Behramji Catering services Ltd	.064	.031	19.40	
Mitcon Consultancy & Engineering Services Ltd	.173	.108	29.60	
Creative Peripherals and Distribution Limited	.027	.010	10.20	

Source – Computed

H₀- Average Return on Asset across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Return on Asset within the sample of selected service SMEs of Maharashtra. The highest average overall Return on Asset of Mitcon Consultancy & Engineering service ltd .173, DRA Consultancy pvt ltd is 0.156, Cawasji Behramji Catering service ltd 0.064, Suyog Telematics ltd is 0.059, Comfort Commotrade ltd is 0.038, Creative Peripherals and Distribution Limited is 0.027.

Jupitor info Media ltd has lowest mean of 0.013.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 27.451 with six degree of freedom .

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Return on Asset across selected SMEs within service sector of Maharashtra.

Table - 6.9.4 : D) Return on net worth

Comparison of average Return on net worth across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.430	.219	20.60	Value 28.297 *df - 6 P value 0
Suyog Telematics ltd	.244	.0585	14.80	
Comfort Commotrade ltd	.242	.0919	15.20	
Jupiter info media ltd	.018	.0138	3.00	
Cawasji Behramji Catering services Ltd	1.345	.316	29.00	
Mitcon Consultancy & Engineering Services Ltd	.175	.113	11.80	
Creative Peripherals and Distribution Limited	2.134	1.008	31.60	

Source – Computed

H₀- Average Degree of Return on net worth across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Return on net worth within the sample of selected service SMEs of Maharashtra. The highest average overall Return on net worth of Creative Peripherals and Distribution Limited is 2.134, Cawasji Behramji Catering service ltd 1.345, DRA Consultancy pvt ltd is 0.430, Suyog Telematics ltd is 0.244, Comfort Commotrade ltd is 0.242, Mitcon Consultancy & Engineering service ltd 0.175.

Jupitor info Media ltd has lowest mean of 0.018.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 28.297 with six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Return on net worth across selected SMEs within service sector of Maharashtra.

Table - 6.9.4 : E) Return on Asset ratio

Comparison of average Return on Asset ratio across SMEs of Service sector in Maharashtra
--

Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.156	.0420	31.00	Value 27.451 *df - 6 P value 0
Suyog Telematics ltd	.059	.0172	18.40	
Comfort Commotrade ltd	.038	.0196	13.00	
Jupiter info media ltd	.014	.006	4.40	
Cawasji Behramji Catering services Ltd	.064	.031	19.40	
Mitcon Consultancy & Engineering Services Ltd	.173	.108	29.60	
Creative Peripherals and Distribution Limited	.027	.010	10.20	

Source – Computed

H₀- Average Return on Asset ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Return on Asset ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Return on Asset ratio of Mitcon Consultancy & Engineering service ltd 0.173, DRA Consultancy pvt ltd is 0.156, Cawasji Behramji Catering service ltd .064, Suyog Telematics ltd is 0.059, Comfort Commotrade ltd is 0.038, Creative Peripherals and Distribution Limited is 0.027.

Jupiter info Media ltd has lowest mean of 0.014.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 27.451 with the six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Return on Asset ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.4 : F) Profitability

Comparison of average Profitability across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.250	.0764	22.40	Value 25.021 *df - 6
Suyog Telematics ltd	.155	.0349	15.00	

Comfort Commotrade ltd	.130	.0596	12.20	P value 0
Jupiter info media ltd	.040	.0211	3.20	
Cawasji Behramji Catering services Ltd	.404	.100	28.80	
Mitcon Consultancy & Engineering Services Ltd	.172	.096	15.40	
Creative Peripherals and Distribution Limited	.502	.213	29.00	

Source – Computed

Ho- Average Degree of Profitability across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Profitability within the sample of selected service SMEs of Maharashtra. The highest average overall Profitability of Creative Peripherals and Distribution Limited is 0.502, Cawasji Behramji Catering service ltd 0.404, DRA Consultancy pvt ltd is 0.250, Mitcon Consultancy & Engineering service ltd 0.172, Suyog Telematics ltd is 0.155, Comfort Commotrade ltd is 0.130.

Jupitor info Media ltd has lowest mean of 0.040.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 25.021 with the six degree of freedom .

The P value is lesser than 0.05 and hence, the null hypothesis (H0) is Rejected.

This table reflects that there exists a significant difference between the Profitability across selected SMEs within service sector of Maharashtra.

6.9.5Capital Structure Analysis

Table - 6.9.5: A) Debt Equity Ratio

Comparison of average Debt Equity Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.054	.069	14.80	Value 28.316 *df - 6
Suyog Telematics ltd	.933	.439	24.60	

Comfort Commotrade ltd	.004	.007	9.00	P value 0
Jupiter info media ltd	.022	.0340	12.20	
Cawasji Behramji Catering services Ltd	1.227	.532	26.40	
Mitcon Consultancy & Engineering Services Ltd	.000	0E-7	6.00	
Creative Peripherals and Distribution Limited	2.354	.373	33.00	

Source – Computed

H₀- Average Debt Equity Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Debt Equity Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Debt Equity Ratio of Creative Peripherals and Distribution Limited is 2.354, Cawasji Behramji Catering service ltd 1.227, Suyog Telematics ltd is 0.933, DRA Consultancy pvt ltd is .054, Jupiter info Media ltd 0.22, Comfort Commotrade ltd is 0.004.

Mitcon Consultancy & Engineering service ltd has lowest mean of 0.000.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 28.316 with six degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Debt Equity Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.5: B) Proprietary Ratio

Comparison of average Proprietary Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.638	.095	21.80	Value 29.873 *df - 6 P value 0
Suyog Telematics ltd	.392	.096	16.60	
Comfort Commotrade ltd	.335	.231	10.20	
Jupiter info media ltd	.927	.044	28.00	
Cawasji Behramji Catering services Ltd	.254	.045	8.60	

Mitcon Consultancy & Engineering Services Ltd	1.449	.197	33.00
Creative Peripherals and Distribution Limited	.246	.028	7.80

Source – Computed

Ho- Average Proprietary Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Proprietary Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Proprietary Ratio of Mitcon Consultancy & Engineering service ltd 1.449, Jupiter info Media ltd 0.927, DRA Consultancy pvt ltd is 0.638, Suyog Telematics ltd is 0.392, Comfort Commotrade ltd is 0.335, Cawasji Behramji Catering service ltd 0.254.

Creative Peripherals and Distribution Limited is has lowest mean of 0.246.

The significance of mean difference is tested using Kruskal Wallis test, it is statistically proven that the mean rank of selected SMEs shows a real difference with in the sector. Test results have generated the Chi square value of 29.873 with the degree of freedom 6.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Proprietary Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.5: C) Debt to Asset Ratio

Comparison of average Degree of Debt to Asset Ratio across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.036	.043	12.00	Value 29.748 *df - 6 P value 0
Suyog Telematics ltd	.338	.098	26.00	
Comfort Commotrade ltd	.004	.006	5.20	
Jupiter info media ltd	.020	.031	8.80	
Cawasji Behramji Catering services Ltd	.293	.108	24.80	
Mitcon Consultancy & Engineering Services Ltd	.058	.022	16.20	
Creative Peripherals and Distribution Limited	.571	.047	33.00	

Source – Computed

H₀- Average Debt to Asset Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Debt to Asset Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Debt to Asset Ratio of Creative Peripherals and Distribution Limited is 0.571, Suyog Telematics Ltd is 0.338, Cawasji Behramji Catering service Ltd 0.293, Mitcon Consultancy & Engineering service Ltd 0.058, DRA Consultancy pvt Ltd is .036, Jupiter info Media Ltd 0.20.

Comfort Commotrade Ltd has lowest mean of 0.004.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 29.748 with six the degree of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Debt to Asset Ratio across selected SMEs within service sector of Maharashtra.

Table - 6.9.5: D) Capital structure

Comparison of average Capital structure across SMEs of Service sector in Maharashtra				
Company	Mean	Standard Deviation	Mean Rank	Chi-Square Result
DRA Consultants Pvt Ltd	.146	.0271	7.80	Value 29.364 *df - 6 P value 0
Suyog Telematics Ltd	.333	.0920	23.00	
Comfort Commotrade Ltd	.069	.0456	3.80	
Jupiter info media Ltd	.194	.016	13.60	
Cawasji Behramji Catering services Ltd	.355	.119	23.60	
Mitcon Consultancy & Engineering Services Ltd	.301	.0385	21.20	
Creative Peripherals and Distribution Limited	.634	.0779	33.00	

Source – Computed

H₀- Average Capital structure Ratio across SMEs of Service sector in Maharashtra are alike.

Table reflects the overall average Capital structure Ratio within the sample of selected service SMEs of Maharashtra. The highest average overall Capital structure Ratio of Creative Peripherals and Distribution Limited is 0.634. Cawasji Behramji Catering service Ltd 0.355,

Suyog Telematics ltd is 0.333, Mitcon Consultancy & Engineering service ltd 0.301, Jupiter info Media ltd 0.194 DRA Consultancy pvt ltd is .146.

Comfort Commotrade ltd has lowest mean of 0.069.

The significance of mean difference is tested using Kruskal Wallis test, It is statistically proven that the mean rank of selected SMEs shows a real difference within the sector. Test results have generated the Chi square value of 29.364 with six degrees of freedom.

The P value is lesser than 0.05 and hence, the null hypothesis (H₀) is Rejected.

This table reflects that there exists a significant difference between the Capital structure Ratio across selected SMEs within service sector of Maharashtra.

6.10 COMPARISON OF FINANCIAL PARAMETERS ACROSS SMES OF MAHARASHTRA WITHIN SERVICE SECTOR AND MANUFACTURING SECTOR USING t TEST

Table - 6.10 Comparison of Financial Parameters across SMEs of Maharashtra within Service sector and Manufacturing sector using t test

Financial Parameters	Manufacturing sector		Service sector		t Value	P value
	Mean	Standard Deviation	Mean	Standard Deviation		
Solvency	0.514	0.249	0.419	0.205	2.778	0.008
Liquidity	0.65	0.175	0.39	0.183	-2.139	0.037
working capital	0.286	0.469	0.264	0.233	-3.387	0.001
Profitability	0.437	0.271	0.331	0.254	-2.044	0.046
capital structure	0.483	0.261	0.41	0.261	-0.049	0.961

Source – Computed

H₀-There is no significant difference in average of financial parameters viz. solvency, Liquidity, Working capital, Profitability, capital structure across manufacturing sector and service sector of SMEs in Maharashtra.

Above table shows the average of Solvency, Liquidity, Working capital, Profitability, capital structure with respect to manufacturing and service sector by taking selected SMEs of Maharashtra for the year 2010-11 to 2015-16.

As per the table there exists a real difference in average of Solvency, Liquidity, and Working capital across service sector and Manufacturing sector. On the other side Parameters viz. Profitability, capital structure are similar across service sector and Manufacturing sector.

6.11 COMPARATIVE ANALYSIS OF ALL RATIOS ACROSS SMES BETWEEN MANUFACTURING SECTOR AND SERVICE SECTOR IN MAHARASHTRA

Table - 6.11 Comparative analysis of all ratios across SMEs between manufacturing sector and Service Sector in Maharashtra

Financial Parameters	Manufacturing sector		Service sector		t Value	P value
	Mean	Standard Deviation	Mean	Standard Deviation		
A. Solvency Analysis						
1. Fixed Asset to long term funds Ratio	0.311	0.304	0.310	0.255	0.014	0.989
2. Long term Debt to Asset Ratio	0.215	0.314	0.206	0.268	0.119	0.906
3. Degree of Financial Leverage	0.391	0.270	0.452	0.231	-0.934	0.354
B. Liquidity						
1. Current Ratio	0.484	0.211	0.311	0.186	3.345	0.001
2. Quick Ratio	0.477	0.188	0.293	0.199	3.604	0.001
3. Cash to Current Asset Ratio	0.392	0.362	0.109	0.193	3.561	0.001
4. Current Asset to Total Asset Ratio	0.676	0.228	0.575	0.339	1.373	0.175
5. Liquid asset to Current asset Ratio	0.821	0.109	0.909	0.162	-2.358	0.022
C. Working Capital Analysis						
1. Working Capital Turnover ratio	-0.007	0.874	0.095	0.190	-0.576	0.569
2. Sales to Current asset ratio	0.494	0.249	0.377	0.217	1.942	0.057
3. Debtors Turnover Ratio	0.451	0.239	0.175	0.211	4.723	0.000
4. Credit Strength ratio	0.374	0.295	0.333	0.345	0.473	0.638
D. Profitability analysis						
1. Net profit ratio	0.271	0.252	0.325	0.247	-0.822	0.414
2. Return On capital Employed Ratio	0.339	0.257	0.362	0.236	-0.372	0.711
3. Net profit before tax to total asset Ratio	0.310	0.288	0.240	0.231	1.046	0.300
4. Return on Net Worth Ratio	0.471	0.278	0.209	0.263	3.715	0.000
5. Net Profit after Tax to Total Asset Ratio	0.271	0.252	0.240	0.231	0.498	0.620
E. Capital structure Analysis						
1. Debt Equity Ratio	0.322	0.299	0.246	0.334	0.914	0.364
2. Proprietary Ratio	0.744	0.216	0.356	0.255	6.195	0.000
3. Debt To Asset Ratio	0.551	0.386	0.295	0.331	2.756	0.008

Source – Computed

H₀ Average of ratios across the service and manufacturing are alike.

Above Table indicates p value is greater than 0.05 for the following ratios

Fixed Asset to long term funds Ratio

Long term Debt to Asset Ratio

Degree of Financial Leverage

Current Asset to Total Asset Ratio

Working Capital Turnover ratio

Sales to Current asset ratio

Credit Strength ratio

Net profit ratio

Return On capital Employed Ratio

Net profit before tax to total asset Ratio

Net Profit after Tax to Total Asset Ratio

Debt Equity Ratio

It concludes that in above ratios, there is no significant different in average across manufacturing and service sector of SMEs in Maharashtra.

p value is greater than 0.05 for the following ratios

Current Ratio

Quick Ratio

Cash to Current Asset Ratio

Debtors Turnover Ratio

Return on Net worth Ratio

Proprietary Ratio

Debt to Asset Ratio

It concludes that in above ratios, there is a significant different in average across manufacturing and service sector of SMEs in Maharashtra.

6.12 CORRELATION ANALYSIS AND TESTING OF HYPOTHESES OF SMEs OF MANUFACTURING SECTOR IN MAHARASHTRA.

“**Correlation** is a bivariate analysis that measures the strength of association between two variables and the direction of the relationship. In terms of the strength of relationship, the value of the correlation coefficient varies between +1 and -1. A value of ± 1 indicates a perfect degree of association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker.”¹¹¹ The direction of the relationship is indicated by the sign of the coefficient; a + sign indicates a positive relationship and a – sign indicates a negative relationship.

Pearson *r* correlation: “Pearson *r* correlation is the most widely used correlation statistic to measure the degree of the relationship between linearly related variables. For example, in the stock market, if we want to measure how two stocks are related to each other, Pearson *r* correlation is used to measure the degree of relationship between the two. The correlation is conducted with the Pearson correlation formula except that one of the variables is dichotomous.”¹¹² The following formula is used to calculate the Pearson *r* correlation:

$$r = \frac{N \sum xy - \sum (x)(y)}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}}$$

r = Pearson *r* correlation coefficient

N = number of observations

$\sum xy$ = sum of the products of paired scores

$\sum x$ = sum of x scores

$\sum y$ = sum of y scores

$\sum x^2$ = sum of squared x scores

$\sum y^2$ = sum of squared y scores

Table - 6.12.1 : A Correlation between Solvency and Profitability and testing the significance of the relationship.

Correlation between ROCE and	Pearson Correlation 'r' value	p- value
Solvency ratio		
1. Fixed asset to long term funds Ratio	-0.11	0.599
2. Long term debt to total asset ratio	-.483*	0.014
3. Degree of financial leverages	-0.105	0.616

Source – Computed

A. Correlation between Solvency and Profitability and testing the significance of the relationship.

Hypothesis:

In each case, we have tested the significance of Correlation coefficient with the help of the following two assumptions:

Null Hypothesis (H₀): There is no significant correlation between Solvency and Profitability.

Interpretation of the hypothesis testing based on correlation statistics and relevant inference at 0.05 level of significance.

1 Relation between Fixed asset to long term funds Ratio and Return on Capital employed (ROCE):

Relation between Fixed asset to long term funds ratio and Return on capital employed (ROCE): in respect of the correlation between the Fixed asset to long term funds ratio and Return on capital employed, the null hypothesis (H₀) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is a no significant positive correlation between Fixed asset to long term funds ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

2 Relation between Long term debt to total asset ratio and Return on capital employed (ROCE):

In respect of the correlation between Long term debt to total asset ratio and Return on capital employed, the null hypothesis (H₀) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is a significant positive correlation between

Long term debt to total asset ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

3 Relation between Degree of financial leverages and Return on capital employed (ROCE):

In respect of the correlation between Degree of financial leverages and Return on capital employed, the null hypothesis (H0) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is a no significant positive correlation Degree of financial leverages and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

Table - 6.12.2 Correlation between Liquidity and testing the significance of the relationship.

Correlation between ROCE and	Pearson Correlation 'r' value	Sig. (2-tailed),35
B. Liquidity Ratios		
1. Current Ratio (CR)	-0.126	0.549
2. Quick Ratio (QR)	0.129	0.539
3. Cash to current asset ratio	.559**	0.004
4. current asset to total asset Ratio	0.264	0.203
5. Liquid asset to current asset Ratio	.614**	0.001

Source – Computed

B. Correlation between Liquidity and testing the significance of the relationship.

Hypothesis:

In each case, we have tested the significance of Correlation coefficient with the help of the following two assumptions:

Null Hypothesis (H0): There is no significant correlation between Liquidity and Profitability.

Alternative Hypothesis (H1): There is significant correlation between Liquidity and Profitability.

Level of significance = 0.05

Interpretation of the hypothesis testing based on correlation statistics and relevant inference at 0.05 level of significance

1 Relation between current ratio and Return on capital employed (ROCE):

In respect of the correlation between current ratio and Return on capital employed, the null hypothesis (H_0) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation current ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

2 Relation between Quick ratio and Return on capital employed (ROCE):

In respect of the correlation between Quick ratio and Return on capital employed, the null hypothesis (H_0) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation Quick ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

3 Relation between Cash to current asset ratio and Return on capital employed (ROCE):

In respect of the correlation between Cash to current asset ratio and Return on capital employed, the null hypothesis (H_0) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Cash to current asset ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

4 Relation between current asset to total asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between current asset to total asset Ratio and Return on capital employed, the null hypothesis (H₀) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation current asset to total asset Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

5 Relation between Liquid asset to current asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between Liquid asset to current asset Ratio and Return on capital employed, the null hypothesis (H₀) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Liquid asset to current asset Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

Table - 6.12.3 :Correlation between Working Capital ratio and testing the significance of the relationship.

Correlation between ROCE and	Pearson Correlation 'r' value	Sig. (2-tailed),35
C Working Capital ratio		
1. Working capital turnover Ratio	0.261	0.208
2. Sales to current Asset ratio	.674**	0.00
3. Debtors turnover ratio	.445*	0.026
4. Credit strength ratio	0.253	0.223

Source – Computed

C. Correlation between Working Capital ratio and testing the significance of the relationship.

Hypothesis:

In each case, we have tested the significance of Correlation coefficient with the help of the following two assumptions:

Null Hypothesis (H0): There is no significant correlation between Working Capital ratio and Profitability of SMEs of Manufacturing sector in Maharashtra.

Alternative Hypothesis (H1): There is significant correlation between Working Capital ratio and Profitability of SMEs of Manufacturing sector in Maharashtra

Level of significance = 0.05

Interpretation of the hypothesis testing based on correlation statistics and relevant inference at 0.05 level of significance

1 Relation between Working capital turnover Ratio and Return on capital employed (ROCE):

In respect of the correlation between Working capital turnover Ratio and Return on capital employed, the null hypothesis (H0) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation Working capital turnover Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

2 Relation between Sales to current Asset ratio to current asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between Sales to current Asset ratio to current asset Ratio and Return on capital employed, the null hypothesis (H0) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Sales to current Asset ratio to current asset Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

3 Relation between Debtors turnover ratio to current asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between Debtors turnover ratio to current asset Ratio and Return on capital employed, the null hypothesis (H0) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Debtors turnover ratio to and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

4 Relation between Credit strength ratio and Return on capital employed (ROCE):

In respect of the correlation between Credit strength ratio and Return on capital employed, the null hypothesis (H₀) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation Credit strength ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

Table - 6.12.4 : Correlation between Capital Structure and testing the significance of the relationship.

Correlation between ROCE and	Pearson Correlation 'r' value	Sig. (2-tailed),35
D Capital Structure		
1. Debt equity ratio	-.533**	0.006
2. Proprietary Ratio	-0.165	0.429
3. Total Debt to asset Ratio	-.768**	0.00

Source – Computed

D. Correlation between Capital Structure and testing the significance of the relationship.

Hypothesis:

In each case, we have tested the significance of Correlation coefficient with the help of the following two assumptions:

Null Hypothesis (H₀): There is no significant correlation between Capital Structure and Profitability of SMEs of Manufacturing sector in Maharashtra

Alternative Hypothesis (H₁): There is significant correlation between Capital Structure and Profitability of SMEs of Manufacturing sector in Maharashtra

Level of significance = 0.05

1 Relation between Sales to current Asset ratio to current asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between Debt equity ratio and Return on capital employed, the null hypothesis (H_0) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Debt equity ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

2 Relation between Proprietary Ratio and Return on capital employed (ROCE):

In respect of the correlation between Proprietary Ratio and Return on capital employed, the null hypothesis (H_0) is accepted and alternative hypothesis is rejected. Thus, we conclude that there is no significant positive correlation between Proprietary Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

3 Relation between Total Debt to asset Ratio and Return on capital employed (ROCE):

In respect of the correlation between Total Debt to asset Ratio and Return on capital employed, the null hypothesis (H_0) is rejected and alternative hypothesis is accepted. Thus, we conclude that there is significant positive correlation Total Debt to asset Ratio and Return on capital employed at 0.05 level of significance with 25 degree of freedom.

6.13 REGRESSION ANALYSIS OF FINANCIAL PARAMETERS AND PROFITABILITY (RETURN ON CAPITAL EMPLOYED)

6.13.1 Selected SMEs of Manufacturing sector in Maharashtra

Table - 6.13.1 : A) Solvency

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R ² 0.439 F value 5.470 p value 0.006	Fixed Asset to long term funds Ratio	-0.105	-0.752	0.461
	Long term Debt to Asset Ratio	-0.623	-3.919	0.001
	Degree of Financial Leverage	-0.512	-2.743	0.012
	Constant	0.705	6.054	0.00

Source – Computed

As per the regression result, mathematical relation between ROCE and Solvency explained as follows

$$\text{ROCE} = (-0.623) * (\text{Long term debt to Asset ratio}) + (-0.512) * (\text{Degree of Financial Leverage}) + 0.705$$

Above regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Solvency Ratios mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r² is 0.439 between P4R2 ratio with Solvency ratios. Also table shows that out of total Ratios of Solvency except Fixed Asset to Long Term Fund ratio remaining two ratios along with constant found to be significantly associated with Return on capital employed.

Table - 6.13.1 : B)Liquidity

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R2 .590 F value 5.468 p value .003	Current Ratio	0.535	0.466	0.647
	Quick Ratio	-0.469	-0.403	0.691
	Cash to Current Asset Ratio	0.297	2.458	0.024
	Current Asset to Total Asset Ratio	0.108	0.58	0.569
	Liquid asset to Current asset Ratio	1.652	1.722	0.101
	Constant	-1.242	-1.504	0.149

Source – Computed

As per the regression result, mathematical relation between ROCE and Liquidity explained as follows

$$\text{ROCE} = (0.297) * (\text{Cash to Current Asset Ratio})$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Liquidity Ratios mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r2 is 0.590 between ROCE ratio with Liquidity ratios. Also table shows that out of total Ratios of Liquidity except Cash to current asset ratio all other ratios along with constant found to be insignificantly associated with ROCE ratio.

Table - 6.13.1 :C)Working capital analysis

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R2 .696 F value 11.446 p value .000	Working Capital Turnover ratio	0.15	3.457	0.002
	Sales to Current asset ratio	1.047	4.341	0.00
	Debtors Turnover Ratio	-0.523	-2.084	0.05
	Credit Strength ratio	0.327	2.534	0.02
	Constant	-0.064	-0.791	0.438

Source – Computed

As per the regression result, mathematical relation between ROCE and Working capital explained as follows:-

$$\text{ROCE} = 0.15 * \text{Working Capital Turnover ratio} + 1.047 * \text{Sales to Current asset ratio} + (-0.523) * \text{Debtors Turnover Ratio} + 0.327 * \text{Credit Strength ratio}$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Working capital ratio mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r² is 0.696 between ROCE ratio with working capital ratios. Also table shows that all Ratios of working capital except the constant found to be significantly associated with ROCE ratio.

Table - 6.13.1 : D)Capital structure

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R ² .782 F value 25.051 p value .000	Debt Equity Ratio	-0.506	-1.89	0.073
	Proprietary Ratio	-0.806	-3.821	0.001
	Debt To Asset Ratio	-0.309	-1.889	0.073
	Constant	1.272	7.322	0.00

Source – Computed

As per the regression result, mathematical relation between ROCE and capital structure explained as follows:-

$$\text{ROCE} = (-0.806) * \text{Proprietary Ratio} + 1.272$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Capital structure ratio mentioned in the above table in manufacturing sector. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r² is 0.782 between ROCE ratio with capital structure ratios. Also table shows that Proprietary Ratio f capital structure along with the constant found to be significantly associated with ROCE ratio.

6.13.2 Service Sector

Table - 6.13.2 : A) Solvency

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R2 .319 F value 4.845 p value .007	Fixed Asset to long term funds Ratio	0.499	3.195	0.003
	Long term Debt to Asset Ratio	-0.059	-0.442	0.662
	Degree of Financial Leverage	-0.561	-3.275	0.003
	Constant	0.473	5.636	0.00

Source – Computed

As per the regression result, mathematical relation between ROCE and Solvency explained as follows

$$\text{ROCE} = 0.499 * (\text{Fixed Asset to long term funds Ratio}) + (-0.561) * (\text{Degree of Financial Leverage}) + 0.473$$

Above regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Solvency Ratios mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r2 is 0.319 between ROCE ratio with Solvency ratios. Also table shows that out of total Ratios of Solvency except Long term Debt to Asset Ratio remaining two ratios along with constant found to be significantly associated with ROCE ratio.

Table - 6.13.2 :B) Liquidity

Regression		Coefficients		t value	p value
R2 .566 F value 7.560 p value .000		Ratio	Coefficient Value		
		Current Ratio	-6.414	-0.782	0.441
		Quick Ratio	5.836	0.708	0.484
		Cash to Current Asset Ratio	0.106	0.639	0.528
		Current Asset to Total Asset Ratio	0.587	5.357	0.00
		Liquid asset to Current asset Ratio	-0.823	-0.416	0.681
		Constant	1.046	0.541	0.592

Source – Computed

As per the regression result, mathematical relation between ROCE and Liquidity explained as follows

$$\text{ROCE} = (0.587) * (\text{Current Asset to Total Asset Ratio})$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Liquidity Ratios mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r2 is .566 between ROCE ratio with Liquidity ratios. Also table shows that out of total Ratios of Liquidity except Current Asset to Total Asset Ratio all other ratios along with constant found to be insignificantly associated with ROCE ratio.

Table - 6.13.2 : C) Working capital analysis

Regression		Coefficients		t value	p value
R2 .463 F value 4.704 p value .008		Ratio	Coefficient Value		
		Working Capital Turnover ratio	0.047	0.235	0.816
		Sales to Current asset ratio	-0.144	-0.839	0.408
		Debtors Turnover Ratio	-0.123	-0.792	0.434
		Credit Strength ratio	0.465	4.108	0.00
		Constant	0.279	3.965	0.00

Source – Computed

As per the regression result, mathematical relation between ROCE and Working capital explained as follows:-

$$\text{ROCE} = 0.465 * \text{Credit Strength ratio} + 0.279$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Working capital ratio mentioned in the above table. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r² is 463 between ROCE ratio with working capital ratios. Also table shows that Credit Strength ratio of working capital along the constant found to be significantly associated with ROCE ratio.

Table - 6.13.2 :D) Capital structure

Regression	Coefficients		t value	p value
	Ratio	Coefficient Value		
R ² .313 F value 25.051 p value .000	Debt Equity Ratio	-0.122	-0.249	0.805
	Proprietary Ratio	-0.401	-2.335	0.026
	Debt To Asset Ratio	0.263	0.552	0.585
	Constant	0.457	5.01	0.00

Source – Computed

As per the regression result, mathematical relation between ROCE and capital structure explained as follows:-

$$\text{ROCE} = (-0.401) * \text{Proprietary Ratio} + 0.457$$

Above Table depicts regression model describe the relationship between the Return on Capital Employed (ROCE) with respect to Capital structure ratio mentioned in the above table in service sector. Result shows that there exist significant relationship as p-value of model found to be less than 0.05 (p-value=0.006) with explained amount of variation r² is .313 between ROCE ratio with capital structure ratios. Also table shows that Proprietary Ratio of capital structure along with the constant found to be significantly associated with ROCE ratio.