CHAPTER 6

Working Capital Management: Analysis of Variances

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CHAPTER – 6
WORKING CAPITAL MANAGEMENT: ANALYSIS OF VARIANCES

This chapter examines the variations, if any, in the selected WCM, LEV and PROF ratios for: (a) Between the industries (b) Between the companies of a given industry and (c) Between the years within a given industry. The detailed methodology for carrying out ANOVA has been discussed in Chapter 4. Further, Single Factor ANOVA is carried out for all the selected ratios as mentioned in Table 5.1, which are grouped as Leverage Ratios, Working Capital Policy Ratios, Current Asset Structure Ratios, Current Liabilities Structure Ratios, Liquidity Ratios, Current Asset Management Current Asset Management Efficiency Ratios, Operating Cycle Variables and Profitability Ratios. For lucidity and better presentation of results, this chapter is divided into *three* major sections followed by summary and conclusions.

Firstly industry level analysis is carried out by examining differences, if any, between the 6 Non Financial Service Industry groups as well as between the years for these industry groups taking all the ratios employing Single Factor ANOVA. This is presented in **Section I.** In **Section II,** *firm level analysis* is carried out to examine the differences, if any between the companies of Non Financial Service Industry *i.e.*, taking all the 79 sample companies applying Single Factor ANOVA for all the WCM, LEV and PROF ratios. Further, between the year differences are also examined for all the firms in the Non Financial Service Industry. In **Section III,** *firm level analysis based on industry wise classification* is carried out and presents the results of ANOVA for all the ratios for between the companies as well as between the years of the firms belonging to individual Non Financial Service Industry groups except Communication Services Industry where there are only 2 firms available for analysis.

SECTION – I

6.1 Single Factor ANOVA between Non Financial Service Industries (6 Industries)

In this section, industry analysis is carried out to examine differences, if any, between the 6 Non Financial Service Industry groups as well as between the years for these Industries with respect to WCM, LEV and PROF ratios for the selected time frame. For the said purpose, Single Factor ANOVA is applied and the results are presented in two sections. Firstly the results of ANOVA for between the Industries are presented followed by the results for between the years.

6.1.1 Single Factor ANOVA between the Industries

The results of single factor ANOVA between the 6 Industries for all the parameters of WCM, LEV and Profitability is presented in Table 6.1. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- From the perusal of Table 6.1, it is observed that means of the LEV, WCL and Working Capital Policy (WCP) ratios widely vary thereby indicating that there exists significant difference between various industry groups of the Non Financial Service Industry with respect to use of debt financing, working capital policy and degree of working capital leverage. The variations are high for LTDTAR as compared to TDTAR indicating that the differences are greater between the Service Industry groups in utilization of long term debt to finance the total assets as compared to the total debt position.
- Significant variations between industries are observed for the current asset investment policy represented by CATAR and CANFAR indicating that the service industries pursue different current asset investment policy. The highest variation is observed for CANFAR followed by CATAR thereby indicating that greater differences exist with respect to the proportion of current asset to net fixed assets.
- Significant variations between Service Industries are also observed for the current asset financing policy pursued as represented by CLCAR, NWCCAR and CLTAR indicating that they differ in terms of utilization of current liabilities and NWC for financing their current assets. Variations are highest for CLTAR indicating that they differ greatly in use of current liabilities to finance their total assets.
- Significant variations observed for WCL indicates that the Service Industry groups differ with respect to investment in current assets and the degree of Working Capital Leverage which is in line with the variations observed for CATAR and CANFAR.

B. Current Asset Structure Ratios

As observed from Table 6.1, the mean of all Current Asset Structure Ratios widely vary except MSTCAR, thereby indicating that there exists significant difference between the industries of Non Financial Service Sector with respect to the current asset component mix. Highest variation is observed for ITCAR indicating that Service Industries differ greatly in terms of maintaining level of inventories as a proportion of current assets. This is followed by PETCAR, CBBTCAR, RTCAR and LATCAR. No significant variation in MSTCAR indicates that the selected industries in the Service Sector

maintain same level of marketable securities as a proportion CA. Thus, it is concluded that there are significant differences between the Service Industries in the structure of current assets maintained by them.

C. Current Liabilities Structure Ratios

On examining the results of ANOVA from Table 6.1, it is observed that mean of all the Current Liabilities Structure Ratios widely vary except TCCLR and OCLCLR. Highest variation is observed for STBBCLR amongst all the CL structure ratios indicating that the industries differ greatly in proportion of STBB to CL which also conveys that they utilize different levels of short term bank borrowing as a source of financing the current assets. No significant variation in TCCLR and OCLCLR indicates that the selected industries in the Service Sector do not differ in the proportion of Trade Credit as well as OCL to Current Liabilities. it is concluded that Industries of Non Financial Service Sector differ significantly with respect to DACELCR, PCLR, STBBCLR and CFCCLR and maintain different mix of current liabilities as a source of financing the current assets.

D. Liquidity Ratios

The results of ANOVA indicate significant evidence that mean of Liquidity ratios widely vary between the industries indicating that the selected industries in Service Sector significantly differ in their approach towards liquidity management. Highest variation is observed for QR indicating that Service Industries differ significantly in maintaining short term liquidity as measured in terms of proportion of quick assets to current liabilities. This is followed by CR and ALR.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

The results of ANOVA for CAME Ratios and OC Variables provide significant evidence that their means vary widely between the industries for 5 out of 8 ratios indicating that the selected Service Industries significantly differ with respect to asset utilization efficiency as well as in the management of cash and receivables. Significant variation observed for **TATR** indicates that the Non Financial Service Industries pursue different approaches in managing their total assets and they vary in terms of asset utilization. Highest variation observed in **CATR** indicates that the selected industries greatly differ in terms of current asset management efficiency. This result is in line with the highest variation observed for CANFAR as well as CATAR, which also may be the reason for such high variation in CATR and TATR. CATR is followed by RTR, TATR, CBTR and ACP. Significant variations in **CBTR** indicate that there exists significant difference between the selected industries in terms of cash management efficiency.

TABLE 6.1						
SINGLE FACTOR ANOVA BETWEEN THE INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	LTDTAR					
	(i) Between Groups	0.394262	5	0.078852	30.5573*	1.41E-17
	(ii) Within Groups	0.21676	84	0.00258		
2	TDTAR					
	(i) Between Groups	0.066952	5	0.01339	3.3218*	0.009
	(ii) Within Groups	0.338613	84	0.004031		
3	CLTAR					
	(i) Between Groups	0.288739	5	0.057748	34.8912*	3.81E-19
	(ii) Within Groups	0.139027	84	0.001655		
4	CATAR					
	(i) Between Groups	1.31284	5	0.262568	106.0371*	8.87E-35
	(ii) Within Groups	0.208	84	0.002476		
5	CLCAR					
	(i) Between Groups	1.928889	5	0.385778	29.4298*	3.81E-17
	(ii) Within Groups	1.101107	84	0.013108		
6	NWCCAR					
	(i) Between Groups	1.928889	5	0.385778	29.4298*	3.81E-17
	(ii) Within Groups	1.101107	84	0.013108		
7	CANFAR			[Critical Value of F at 1% = 3.261]		
	(i) Between Groups	120.0176	5	24.00352	120.6734*	3.13E-35
	(ii) Within Groups	15.51522	78	0.198913		
8	WCL			[Critical Value of F at 1% = 3.261]		
	(i) Between Groups	1.60691	5	0.32138	56.877*	1.3005E-24
	(ii) Within Groups	0.44074	78	0.00565		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.22313	5	0.044626	64.0127*	3.4E-27
	(ii) Within Groups	0.05856	84	0.000697		
10	RTCAR					
	(i) Between Groups	0.379382	5	0.075876	12.562*	4.11E-09
	(ii) Within Groups	0.507373	84	0.00604		
11	CBBTCAR					
	(i) Between Groups	0.193449	5	0.03869	10.0593*	1.43E-07
	(ii) Within Groups	0.32308	84	0.003846		
12	PETCAR					
	(i) Between Groups	0.306129	5	0.061226	37.6535*	4.4E-20
	(ii) Within Groups	0.136587	84	0.001626		
13	LATCAR					
	(i) Between Groups	0.079557	5	0.015911	4.4957*	0.001
	(ii) Within Groups	0.297293	84	0.003539		
14	MSTCAR					
	(i) Between Groups	0.012476	5	0.002495	1.2987	0.27
	(ii) Within Groups	0.161387	84	0.001921		

TABLE 6.1 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	**TCCLR**					
	(i) Between Groups	0.014246	5	0.002849	1.4002	0.233
	(ii) Within Groups	0.17092	84	0.002035		
16	**DACECLR**					
	(i) Between Groups	0.1107	5	0.22142	11.5871*	1.59E-08
	(ii) Within Groups	0.16052	84	0.001911		
17	**PCLR**					
	(i) Between Groups	0.249289	5	0.049858	16.4478*	2.73E-11
	(ii) Within Groups	0.254627	84	0.003031		
18	**STBBCLR**					
	(i) Between Groups	0.205606	5	0.041121	38.4481*	2.43E-20
	(ii) Within Groups	0.08984	84	0.00107		
19	**CFCCLR**					
	(i) Between Groups	0.105982	5	0.021196	18.4878*	2.43E-12
	(ii) Within Groups	0.096307	84	0.001147		
20	**OCLCLR**					
	(i) Between Groups	0.014099	5	0.00282	2.1468	0.068
	(ii) Within Groups	0.110333	84	0.001313		
Liquidity Ratios						
21	**CR**					
	(i) Between Groups	16.55425	5	3.310849	17.4063*	8.62E-12
	(ii) Within Groups	346.0133	84	1.544702		
22	**QR**					
	(i) Between Groups	18.27273	5	3.654546	19.5002*	7.68E-13
	(ii) Within Groups	15.74247	84	0.18741		
23	**ALR**					
	(i) Between Groups	3.629307	5	0.725861	6.8829*	1.99E-05
	(ii) Within Groups	8.858533	84	0.105459		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	**TATR**					
	(i) Between Groups	5.429543	5	1.085909	59.5505*	3.61E-26
	(ii) Within Groups	1.531747	84	0.018235		
25	**CATR**					
	(i) Between Groups	44.85617	5	8.971228	125.2976*	2.02E-37
	(ii) Within Groups	6.014347	84	0.071599		
26	**WCTR**					
	(i) Between Groups	1423.521	5	284.7041	0.907494	0.480
	(ii) Within Groups	26352.96	84	313.7257		
27	**RTR**					
	(i) Between Groups	505.9028	5	101.1806	60.1149*	2.66E-26
	(ii) Within Groups	141.3821	84	1.683121		
28	**ACP**					
	(i) Between Groups	310781.4	5	62156.29	9.6235*	2.74E-07
	(ii) Within Groups	542537.1	84	6458.775		

TABLE 6.1 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
29	CBTR					
	(i) Between Groups	4990.905	5	998.1809	23.4858*	1.09E-14
	(ii) Within Groups	3570.129	84	42.50154		
30	CTR					
	(i) Between Groups	274018.2	5	54803.65	1.2361	0.300
	(ii) Within Groups	3724354	84	44337.55		
31	APP					
	(i) Between Groups	16759.79	5	3351.958	1.13334	0.349
	(ii) Within Groups	248434	84	2957.548		
Profitability Ratios						
32	OPM					
	(i) Between Groups	2825.337	5	565.0674	6.3398*	4.86E-05
	(ii) Within Groups	7486.991	84	89.13084		
33	NPM					
	(i) Between Groups	1469.236	5	293.8471	4.7997*	0.001
	(ii) Within Groups	5142.628	84	61.22177		
34	ROTA					
	(i) Between Groups	980.8542	5	196.1708	7.8206*	4.4E-06
	(ii) Within Groups	2107.033	84	25.08373		
35	EAT/TA					
	(i) Between Groups	1015.142	5	203.0284	12.8284*	2.86E-09
	(ii) Within Groups	1329.426	84	15.8265		
36	RONW					
	(i) Between Groups	1896.44	5	379.288	3.5288*	0.006
	(ii) Within Groups	9028.53	84	107.482		
* Indicating significant results at 1% level of significance with Critical Value of F = 3.243						
** Indicating significant results at 5% level of significance with Critical Value of F = 2.323						
✱ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.						
# Many of the companies had NIL inventory in atleast 1 year of the study period and hence it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. This is applicable to variances between the years for these industries.						

Significant variations in **RTR and ACP** indicate that differences exist between the selected industries of Non Financial Service Sector in managing their receivables and hence it is concluded that these industries pursue different credit and collection policy. However, no significant variation in **CTR, WCTR** and **APP** indicates that the Non Financial Service Industry groups follow similar approach with respect to payables management as well as utilization of net working capital for operating sales.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios provide significant evidence at 1% level of significance for all the profitability ratios that their means vary widely between the

selected Service Industries thereby indicating that there exists significant difference between the selected industries of Non Financial Service Sector with respect to their profitability position. Highest variation is observed for EAT/TA indicating that the selected Service Industries differ greatly with respect to their operational efficiency measured as percentage of post tax returns on total assets and that the industries manage their operations differently. This is followed by ROTA, OPM, NPM and RONW. The results are very much obvious looking at the results of Current Asset Structure as well as Current Asset Management Efficiency Ratios.

Hence, the null hypothesis that no significant variations exist between companies for selected Profitability ratios is rejected and it is concluded that the selected Non Financial Service Industries of India significantly differ in terms of their profit earning ability and manage their operations differently.

While analyzing the variances between industries of the Non Financial Service Sector over a period of 15 years, significant variances were observed at 1% level of significance for 30 out of 36 ratios. Highest variance was observed for the CATR.

Hence, the null hypothesis that no significant variations exist between Non Financial Service Industries for selected parameters of WCM, LEV and Profitability is broadly rejected.

6.1.2 Single Factor ANOVA between the years of Non Financial Service Industry

The results of single factor ANOVA between the years for 6 Industries of Non Financial Service Sector for all the parameters of WCM, LEV and Profitability is presented in Table 6.2.

While analyzing the variance between the years for Non Financial Service Industry for all the 36 ratios, significant variations were observed for only 2 ratios *viz,* MSTCAR (1%) and RTCAR (5%) which indicates that there have been variations in proportion of Receivables and Marketable Securities to Current Assets between the years for the Non Financial Service Industry.

Thus, it is concluded that there were no significant variations in the mean of selected parameters of WCP, LEV, CA Structure (except RTCAR and MSTCAR), CL Structure, Liquidity, CAME and PROF as well as OC Variables over the study period. These results indicate that the policies for managing working capital have remained consistent over the study period excepting those related to receivables and investment in marketable securities. Hence, the null hypothesis that there exists no significant variation between years for selected WCM, LEV and PROF ratios is broadly accepted.

TABLE 6.2						
SINGLE FACTOR ANOVA BETWEEN THE YEARS FOR INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)						
Sr. No.	Category & Name of Ratio	Service Industry	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	CLTAR					
	(i) Between Groups	0.015249	14	0.001089	0.1980	0.999
	(ii) Within Groups	0.412517	75	0.0055		
2	LTDTAR					
	(i) Between Groups	0.055689	14	0.003978	0.5372	0.903
	(ii) Within Groups	0.555333	75	0.007404		
3	TDTAR					
	(i) Between Groups	0.047449	14	0.003389	0.7098	0.758
	(ii) Within Groups	0.358117	75	0.004775		
4	CATAR					
	(i) Between Groups	0.00934	14	0.000667	0.0331	1
	(ii) Within Groups	1.5115	75	0.020153		
5	CLCAR					
	(i) Between Groups	0.091629	14	0.006545	0.1671	0.999
	(ii) Within Groups	2.938367	75	0.039178		
6	NWCCAR					
	(i) Between Groups	0.091629	14	0.006545	0.1671	0.999
	(ii) Within Groups	2.938367	75	0.039178		
7	CANFAR	[Critical Value of F = 2.395 (1%) and 1.863 (5%)]				
	(i) Between Groups	0.177717	13	0.013671	0.0071	1
	(ii) Within Groups	135.3551	70	1.933644		
8	WCL	[Critical Value of F = 2.395 (1%) and 1.863 (5%)]				
	(i) Between Groups	0.04116	13	0.00317	0.1105	0.999
	(ii) Within Groups	2.00648	70	0.02866		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.022373	14	0.001598	0.4622	0.946
	(ii) Within Groups	0.259317	75	0.003458		
10	RTCAR					
	(i) Between Groups	0.291056	14	0.02079	2.6175**	0.004
	(ii) Within Groups	0.5957	75	0.007943		
11	CBBTCAR					
	(i) Between Groups	0.010362	14	0.00074	0.1097	0.999
	(ii) Within Groups	0.506167	75	0.006749		
12	PETCAR					
	(i) Between Groups	0.055716	14	0.00398	0.7713	0.696
	(ii) Within Groups	0.387	75	0.00516		
13	LATCAR					
	(i) Between Groups	0.035933	14	0.002567	0.5647	0.884
	(ii) Within Groups	0.340917	75	0.004546		
14	MSTCAR					
	(i) Between Groups	0.101996	14	0.007285	7.6030*	1.23E-09
	(ii) Within Groups	0.071867	75	0.000958		

TABLE 6.2 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS FOR INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	**TCCLR**					
	(i) Between Groups	0.031549	14	0.002253	1.1002	0.372
	(ii) Within Groups	0.153617	75	0.002048		
16	**DACECLR**					
	(i) Between Groups	0.056049	14	0.004003	1.3954	0.177
	(ii) Within Groups	0.215183	75	0.002869		
17	**PCLR**					
	(i) Between Groups	0.048249	14	0.003446	0.5673	0.882
	(ii) Within Groups	0.455667	75	0.006076		
18	**STBBCLR**					
	(i) Between Groups	0.006029	14	0.000431	0.1116	0.999
	(ii) Within Groups	0.289417	75	0.003859		
19	**CFCCLR**					
	(i) Between Groups	0.033556	14	0.002397	1.0654	0.402
	(ii) Within Groups	0.168733	75	0.00225		
20	**OCLCLR**					
	(i) Between Groups	0.028416	14	0.00203	1.5854	0.103
	(ii) Within Groups	0.096017	75	0.00128		
Liquidity Ratios						
21	**CR**					
	(i) Between Groups	2.018516	14	0.14418	0.3544	0.983
	(ii) Within Groups	30.51338	75	0.406845		
22	**QR**					
	(i) Between Groups	1.574829	14	0.112488	0.2601	0.996
	(ii) Within Groups	32.44037	75	0.432538		
23	**ALR**					
	(i) Between Groups	0.575173	14	0.041084	0.2587	0.997
	(ii) Within Groups	11.91267	75	0.158836		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	**TATR**					
	(i) Between Groups	0.239873	14	0.017134	0.1912	0.999
	(ii) Within Groups	6.721417	75	0.089619		
25	**CATR**					
	(i) Between Groups	0.862489	14	0.061606	0.0924	0.999
	(ii) Within Groups	50.008	75	0.666773		
26	**WCTR**					
	(i) Between Groups	5178.026	14	369.859	1.2275	0.274
	(ii) Within Groups	22598.45	75	301.3127		
27	**RTR**					
	(i) Between Groups	58.92266	14	4.208762	0.5365	0.904
	(ii) Within Groups	588.3623	75	7.884831		
28	**ACP**					
	(i) Between Groups	98319.67	14	7022.833	0.6976	0.770
	(ii) Within Groups	754998.8	75	10066.65		

TABLE 6.2 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS FOR INDUSTRIES BELONGING TO NON FINANCIAL SERVICES INDUSTRY (6 INDUSTRIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
29	CBTR					
	(i) Between Groups	416.2816	14	29.7344	0.2738	0.995
	(ii) Within Groups	8144.752	75	108.5967		
30	CTR					
	(i) Between Groups	624060.4	14	44575.74	0.9908	0.471
	(ii) Within Groups	3374312	75	44990.83		
31	APP					
	(i) Between Groups	37388.29	14	2670.592	0.8792	0.584
	(ii) Within Groups	227805.5	75	3037.407		
Profitability Ratios						
32	OPM					
	(i) Between Groups	1348.34	14	96.31003	0.8058	0.6602
	(ii) Within Groups	8963.987	75	119.5198		
33	NPM					
	(i) Between Groups	1007.013	14	71.92947	0.9625	0.499
	(ii) Within Groups	5604.851	75	74.73135		
34	ROTA					
	(i) Between Groups	560.5969	14	40.04263	1.1883	0.302
	(ii) Within Groups	2527.29	75	33.69721		
35	EAT/TA					
	(i) Between Groups	365.978	14	26.14128	0.991	2E-10
	(ii) Within Groups	1978.59	75	26.3812		
36	RONW					
	(i) Between Groups	2235.95	14	159.711	1.3786	0.185
	(ii) Within Groups	8689.02	75	115.854		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.329 ** Indicating significant results at 5% level of significance with Critical Value of F = 1.826						

SECTION - II

6.2 Single Factor ANOVA of Non Financial Service Industry (All 79 Companies)

In this section firm level analysis is carried out to examine the differences, if any, between all the 79 companies of the Indian Non Financial Service Industry as well as between the 15 years for all the 79 companies for the selected parameters of WCM, LEV and PROF over the selected time frame. The results of Single Factor ANOVA for between the companies is presented and interpreted first followed by the results of ANOVA for between the years.

6.2.1 Single Factor ANOVA between the companies of Indian Non Financial Service Industry

The results of single factor ANOVA between the 79 companies of Indian Non Financial Service Industry for all the parameters of WCM, LEV and PROF are

presented in Table 6.3. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- The results of this analysis provide significant evidence that means of the LEV, WCL and Working Capital Policy (WCP) ratios widely vary as observed from the Table 6.3. The resulting values of F-test are significant at 1% level of significance for all the parameters of WCP and LEV thereby indicating that there exists significant difference between the companies of Non Financial Service Industry with respect to use of debt financing as well as aggressive/conservative working capital policy.
- The variations are high for LTDTAR as compared to TDTAR indicating that the differences are greater within the companies in the Non Financial Service Industry in utilization of long-term debt to finance the total assets as compared to the total debt position.
- Significant variations between companies are observed for the current asset investment policy represented by CATAR and CANFAR. Amongst the current asset investment policy, the highest variation is observed for CATAR followed by CANFAR, which indicates that the companies greatly differ in the current asset investment policy pursued by them.
- Significant variations between companies are also observed for the current asset financing policy followed as represented by CLCAR, NWCCAR and CLTAR indicating that firms differ in use of current liabilities and net working capital for financing their current assets. Also, variations are highest for CLTAR indicating that the firms in non financial service industry differ significantly in use of current liabilities to finance their total assets.
- Significant variations observed for WCL indicates that there exist significant differences between the companies of Non Financial Service Industry with respect to investment in current assets and the degree of Working Capital Leverage. The results are in line with the variations observed for CATAR and CANFAR.

B. Current Asset Structure Ratios

As observed from Table 6.3, the results of ANOVA also provide significant evidence that mean of the Current Asset Structure Ratios widely vary. Highest variation is observed for ITCAR indicating that companies differ significantly in terms of maintaining level of inventories as a proportion of current assets. This is followed by RTCAR, CBBTCAR, PETCAR, MSTCAR and LATCAR.

Thus, it is concluded that there are significant differences between the companies in the structure of current assets maintained by them.

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means vary widely between the companies. Highest variation between the companies is observed for CFCCLR followed by OCLCLR, PCLR, TCCLR, DACECLR and STBBCLR.

Thus, it is concluded that mean current liabilities structure ratios of companies in Non Financial Service Industry differ significantly and they maintain different mix of current liabilities as a source of financing the current assets.

D. Liquidity Ratios

The results of ANOVA also indicate significant evidence that mean of Liquidity ratios widely vary. Highest variation is observed for CR followed by QR and ALR indicating that companies differ significantly in terms of maintaining short term liquidity as measured in terms of proportion of current assets, quick assets as well as cash assets to current liabilities.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

Many companies had zero inventory and so the company wise values for the 15 years of the study period of ITR and IHP were unavailable. Therefore, it was not possible to examine the variances in ITR and IHP and resultantly variances in OC and NTC could not be examined. Since companies with zero inventories belong to Hotels and Restaurant Industry, IT[illegible] Industry, Transport Services Industry and Miscellaneous Services Industry, the examination of variances in ITR, IHP, OC and NTC is not done for these industries too.

The results of ANOVA for CAME Ratios and Operating Cycle Variables provide significant evidence that their means vary widely between the companies for all ratios except WCTR, CTR and APP. No significant variation in WCTR, CTR, and APP between firms of Non Financial Service Industry conveys that they follow similar approach for management of payables and utilization of net working capital.

Thus, it is concluded that firms in Non Financial Service Industry differ in terms of total and current the asset utilization efficiency as well as pursue different policies for management of cash and receivables.

TABLE 6.3						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	LTDTAR					
	(i) Between Groups	33.3984	78	1.42818	36.8901*	9E-254
	(ii) Within Groups	12.8374	1106	0.01161		
2	TDTAR					
	(i) Between Groups	37.332	78	0.47861	27.207*	8E-205
	(ii) Within Groups	19.4563	1106	0.01759		
3	CLTAR					
	(i) Between Groups	27.8896	78	0.35756	31.4681*	1E-227
	(ii) Within Groups	12.567	1106	0.01136		
4	CATAR					
	(i) Between Groups	52.2378	78	0.666972	72.2017*	0
	(ii) Within Groups	10.2588	1106	0.00928		
5	CLCAR					
	(i) Between Groups	272.607	78	3.49496	18.2832*	5E-149
	(ii) Within Groups	211.419	1106	0.19116		
6	NWCCAR					
	(i) Between Groups	275.499	78	3.53204	18.3873*	9E-150
	(ii) Within Groups	212.453	1106	0.19209		
7	CANFAR*				[Critical Value of F = 1.43]	
	(i) Between Groups	3519.773	78	45.12529	34.0358*	6E-232
	(ii) Within Groups	1361.616	1027	1.325819		
8	WCL*				[Critical Value of F = 1.43]	
	(i) Between Groups	68.16096	78	0.873858	43.0184*	8.3E-270
	(ii) Within Groups	20.86207	1027	0.020314		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	9.08191	78	0.11643	24.8835*	2E-191
	(ii) Within Groups	5.1752	1106	0.00468		
10	RTCAR					
	(i) Between Groups	34.4515	78	0.44169	20.6241*	6E-165
	(ii) Within Groups	23.6861	1106	0.02142		
11	CBBTCAR					
	(i) Between Groups	22.3658	78	0.28674	18.8488*	6E-153
	(ii) Within Groups	16.8252	1106	0.01521		
12	PETCAR					
	(i) Between Groups	6.51366	78	0.08351	17.1545*	5E-141
	(ii) Within Groups	5.38404	1106	0.00487		
13	LATCAR					
	(i) Between Groups	9.76269	78	0.12516	11.7247*	2E-98
	(ii) Within Groups	11.8067	1106	0.01068		
14	MSTCAR					
	(i) Between Groups	9.87668	78	0.12662	12.5065*	5E-105
	(ii) Within Groups	11.1979	1106	0.01012		

TABLE 6.3 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	23.71731	78	0.304068	17.2319*	1.5E-141
	(ii) Within Groups	19.51611	1106	0.017646		
16	DACECLR					
	(i) Between Groups	13.52154	78	0.173353	16.0526*	6.7E-133
	(ii) Within Groups	11.94374	1106	0.010799		
17	PCLR					
	(i) Between Groups	28.12154	78	0.360533	18.8343*	7.3E-153
	(ii) Within Groups	21.17144	1106	0.019142		
18	STBBCLR					
	(i) Between Groups	13.06903	78	0.167552	12.0260*	5.7E-101
	(ii) Within Groups	15.40935	1106	0.013933		
19	CFCCLR					
	(i) Between Groups	20.78957	78	0.266533	24.9701*	5.7E-192
	(ii) Within Groups	11.80554	1106	0.010674		
20	OCLCLR					
	(i) Between Groups	22.40635	78	0.287261	20.7480*	9.9E-166
	(ii) Within Groups	37.2384	1106	0.013845		
Liquidity Ratios						
21	CR					
	(i) Between Groups	2192.378	78	28.10741	14.1777*	1.6E-118
	(ii) Within Groups	2192.656	1106	1.98251		
22	QR					
	(i) Between Groups	2088.912	78	26.78092	13.5152*	3.1E-113
	(ii) Within Groups	2191.585	1106	1.981542		
23	ALR					
	(i) Between Groups	567.6818	78	7.277972	9.5313*	4.01E-79
	(ii) Within Groups	844.5233	1106	0.763583		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	364.2407	78	4.669752	37.8818*	3E-258
	(ii) Within Groups	136.3383	1106	0.123272		
25	CATR					
	(i) Between Groups	4649.339	78	59.60692	46.0708*	1.6E-292
	(ii) Within Groups	1430.956	1106	1.293812		
26	WCTR					
	(i) Between Groups	209664	78	2688	1.0247	0.422
	(ii) Within Groups	2901257	1106	2623.198		
27	RTR					
	(i) Between Groups	45550.36	78	583.979	29.3846*	1E-216
	(ii) Within Groups	21980.26	1106	19.87365		
28	ACP					
	(i) Between Groups	15525333	78	199042.7	1.4554*	0.007
	(ii) Within Groups	1.51E+08	1106	136759.9		

TABLE 6.3 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
29	CBTR					
	(i) Between Groups	729225.2	78	9349.041	16.1916*	6.1E-134
	(ii) Within Groups	638604.5	1106	577.4001		
30	CTR					
	(i) Between Groups	1.08E+08	78	1387687	1.0268	0.417
	(ii) Within Groups	1.49E+09	1106	1351466		
31	APP					
	(i) Between Groups	7467871	78	95741.94	1.1577	0.171
	(ii) Within Groups	91470147	1106	82703.57		
Profitability Ratios						
32	OPM					
	(i) Between Groups	330412.1	78	4236.052	16.5202*	2.3E-136
	(ii) Within Groups	283596.7	1106	256.4165		
33	NPM					
	(i) Between Groups	229910.6	78	2947.572	10.3058*	4.35E-86
	(ii) Within Groups	527849	1106	451.153		
34	ROTA					
	(i) Between Groups	74479.20	78	654.8615	8.6238*	9.41E-71
	(ii) Within Groups	122460.2	1106	110.7235		
35	EAT/TA					
	(i) Between Groups	63173.26	78	809.9135	10.8472*	7.4E-91
	(ii) Within Groups	82580.61	1106	74.66601		
36	RONW					
	(i) Between Groups	219826	78	2818.30	1.0845	0.2936
	(ii) Within Groups	3E+06	1106	2598.70		
* Indicating significant results at 1% level of significance with Critical Value of F = 1.43						

* As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.

Many of the companies had NIL inventory in atleast 1 year of the study period and it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. The same is applicable to between the years analysis of variance.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios provide significant evidence that their means vary widely between the companies except RONW. Highest variation is observed for OPM followed by EAT/TA, NPM and ROTA. For RONW, no significant variations are observed between companies of Non Financial Service Industry.

While analyzing the variances between the companies for the Non Financial Service Industry over a period of 15 years, it was observed that no significant variances existed for only 3 of the 36 ratios and they are WCTR, CTR and APP. For the remaining 33 ratios, variance is observed at 1% level of significance and the highest variance is

observed for CATAR. Hence, the null hypothesis that no significant variations exist between companies for selected parameters of WCM, LEV and Profitability is rejected.

6.2.2 Single Factor ANOVA between the years of Indian Non Financial Service Industry

The results of single factor ANOVA between the years of 79 companies of Indian Non Financial Service Industry for all the parameters of WCM, LEV and Profitability is presented in Table 6.4. *While analyzing* the variance between the years for Service industry for all the selected parameters, it was observed that out of 36 ratios, only for 9 ratios, significant variations existed and for the remaining 27 ratios no significant variations were observed between the years. The ratios where significant variations are found are ITCAR, RTCAR, PETCAR, MSTCAR, DACECLR, OPM, NPM, ROTA and EAT/TA.

These results indicate that there have been changes in the *composition of current asset investment* over the study period, which has mainly been caused due to changes in level of investment in receivables, inventories, prepaid expenses and marketable securities. DACE as a proportion of CL has also varied over the study period. The variations significant for all the profitability ratios indicates that the profitability position of the service industry has varied significantly in the years under study.

Thus, it is concluded that there were no significant variations in the means of selected ratios of WCP, LEV, Current Liabilities Structure (except DACECLR), Liquidity, Efficiency and Operating Cycle Variables over the study period whereas, significant variations are observed for Current Asset Structure Ratios (except CBBTCAR and LATCAR) and Profitability Ratios. In addition, highest variation between the years is observed for MSTCAR.

TABLE 6.4

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.233181	14	0.016656	0.4236	0.967
	(ii) Within Groups	46.00263	1170	0.039318		
2	**TDTAR**					
	(i) Between Groups	0.264787	14	0.018913	0.3915	0.977
	(ii) Within Groups	56.5235	1170	0.048311		
3	**CLTAR**					
	(i) Between Groups	0.244188	14	0.017442	0.5075	0.930
	(ii) Within Groups	40.21242	1170	0.03437		

TABLE 6.4 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
4	CATAR					
	(i) Between Groups	0.134033	14	0.009574	0.1796	0.999
	(ii) Within Groups	62.36258	1170	0.053301		
5	CLCAR					
	(i) Between Groups	1.119574	14	0.07997	0.1938	0.999
	(ii) Within Groups	482.9068	1170	0.412741		
6	NWCCAR					
	(i) Between Groups	0.978496	14	0.069893	0.1679	0.999
	(ii) Within Groups	486.9736	1170	0.416217		
7	CANFAR	[Critical Value of F = 2.146 (1%) and 1.729 (5%)]				
	(i) Between Groups	20.30254	13	1.561734	0.3508	0.983
	(ii) Within Groups	4861.086	1092	4.451544		
8	WCL	[Critical Value of F = 2.146 (1%) and 1.729 (5%)]				
	(i) Between Groups	0.472155	13	0.03632	0.4479	0.952
	(ii) Within Groups	88.55088	1092	0.081091		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.311163	14	0.022226	1.8647**	0.026
	(ii) Within Groups	13.94595	1170	0.01192		
10	RTCAR					
	(i) Between Groups	2.982896	14	0.213064	4.5198*	5.35E-08
	(ii) Within Groups	55.15464	1170	0.047141		
11	CBBTCAR					
	(i) Between Groups	0.243899	14	0.017421	0.5234	0.920
	(ii) Within Groups	38.94702	1170	0.033288		
12	PETCAR					
	(i) Between Groups	0.606647	14	0.043332	4.4902*	6.28E-08
	(ii) Within Groups	11.29105	1170	0.00965		
13	LATCAR					
	(i) Between Groups	0.311339	14	0.02224	1.2240	0.251
	(ii) Within Groups	21.25804	1170	0.018169		
14	MSTCAR					
	(i) Between Groups	1.229105	14	0.087793	5.1759*	1.46E-09
	(ii) Within Groups	19.84548	1170	0.016962		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.548536	14	0.039181	1.0790	0.377
	(ii) Within Groups	42.68489	1170	0.036488		
16	DACECLR					
	(i) Between Groups	0.780505	14	0.05575	2.6425*	0.000
	(ii) Within Groups	24.68478	1170	0.021098		
17	PCLR					
	(i) Between Groups	0.725098	14	0.051798	1.2477	0.234
	(ii) Within Groups	48.56788	1170	0.041511		

TABLE 6.4 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
18	STBBCLR					
	(i) Between Groups	0.061668	14	0.004405	0.1814	0.999
	(ii) Within Groups	28.4167	1170	0.024288		
19	CFCCLR					
	(i) Between Groups	0.21282	14	0.015201	0.5492	0.904
	(ii) Within Groups	32.3823	1170	0.027677		
20	OCLCLR					
	(i) Between Groups	0.48083	14	0.03434	1.0791	0.372
	(ii) Within Groups	37.2384	1170	0.03183		
Liquidity Ratios						
21	CR					
	(i) Between Groups	26.6843	14	1.90602	0.5117	0.927
	(ii) Within Groups	4358.35	1170	3.72508		
22	QR					
	(i) Between Groups	20.2749	14	1.44821	0.3978	0.975
	(ii) Within Groups	4260.22	1170	3.64122		
23	ALR					
	(i) Between Groups	16.7058	14	1.19327	1.0005	0.450
	(ii) Within Groups	1395.50	1170	1.19273		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	2.57728	14	0.18409	0.4325	0.964
	(ii) Within Groups	498.002	1170	0.42564		
25	CATR					
	(i) Between Groups	21.0738	14	1.50527	0.2907	0.994
	(ii) Within Groups	6059.22	1170	5.17882		
26	WCTR					
	(i) Between Groups	40480	14	2891.43	1.1018	0.351
	(ii) Within Groups	3070441	1170	2624.31		
27	RTR					
	(i) Between Groups	1299.70	14	92.8356	1.6400	0.062
	(ii) Within Groups	66230.91	1170	56.6076		
28	ACP					
	(i) Between Groups	2357373	14	168384	1.1982	0.270
	(ii) Within Groups	1.6E+08	1170	140534		
29	CBTR					
	(i) Between Groups	5620.3419	14	401.453	0.3448	0.987
	(ii) Within Groups	1362209.4	1170	1164.28		
30	CTR					
	(i) Between Groups	18967449.2	14	1354818	1.0007	0.450
	(ii) Within Groups	1583993525	1170	1353841		
31	APP					
	(i) Between Groups	1167056.52	14	83361.2	0.9976	0.453
	(ii) Within Groups	97770961.3	1170	83564.90		

TABLE 6.4 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF NON FINANCIAL SERVICE INDUSTRY (79 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Profitability Ratios						
32	OPM					
	(i) Between Groups	19510.70	14	1393.62	2.7427*	0.000
	(ii) Within Groups	594498	1170	508.118		
33	NPM					
	(i) Between Groups	18388.10	14	1313.43	2.9113*	0.000
	(ii) Within Groups	527849	1170	451.153		
34	ROTA					
	(i) Between Groups	8626.96582	14	616.212	3.8286*	2.2E-06
	(ii) Within Groups	188312.467	1170	160.951		
35	EAT/TA					
	(i) Between Groups	6535.66134	14	466.833	3.9233*	1.3E-06
	(ii) Within Groups	139218.206	1170	118.99		
36	RONW					
	(i) Between Groups	52324.80	14	3737.49	1.4377	0.1283
	(ii) Within Groups	3041654	1170	2599.70		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.07 ** Indicating significant results at 5% level of significance with Critical Value of F = 1.70						

SECTION - III

6.3 Single Factor ANOVA: Industry Wise (5 Industries)

In this section, firm level analysis based on industry-wise classification is carried out employing Single Factor ANOVA. Industry wise analysis of variances is carried out to examine if significant variations exist between the companies as well as between the years taking each industry separately for all the selected WCM, LEV and PROF ratios for the selected time frame. The results of ANOVA are presented for Hotels and Restaurant Industry first followed by IT&A, Transport Services, Health Services and Miscellaneous Services Industry.

6.3.1 Single Factor ANOVA for Hotels and Restaurant Industry (25 Companies)

This section presents the results of Single Factor ANOVA between the 25 companies of Hotels and Restaurant Industry as well as between the 15 years for all the 25 companies for the selected parameters of WCM, LEV and PROF. The results of ANOVA between the companies is presented and interpreted first followed by the results of ANOVA between the years.

6.3.1.1 Single Factor ANOVA between the companies of Hotels and Restaurant Industry

The results of single factor ANOVA between the 25 companies of Hotels and Restaurant Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.5. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- As observed from the Table 6.5, the results of this analysis provide significant evidence that means of the LEV, WCL and Working Capital Policy (WCP) ratios widely vary thereby indicating that there exists significant difference between the companies of Hotels and Restaurant Industry with respect to use of debt financing and working capital policy. The variations are high for LTDTAR as compared to TDTAR indicating that the differences are greater between the companies in the Hotels and Restaurant Industry in utilization of long-term debt to finance the total assets as compared to the total debt position.
- Significant variations between companies are observed for the current asset investment policy represented by CATAR and CANFAR. The highest variation is observed for CATAR followed by CANFAR, which indicates that the companies greatly differ in the aggressive/conservative current asset investment policy pursued by them. Significant variations between companies are also observed for the current asset financing policy followed as represented by CLCAR, NWCCAR and CLTAR indicating that firms differ in use of current liabilities and net working capital for financing their current assets. In addition, variations are highest for CLTAR indicating that the firms in Hotels and Restaurant Industry differ significantly in use of current liabilities to finance their total assets.
- Significant variations are also observed for WCL indicating that there exist significant differences between the companies of Hotels and Restaurant Industry with respect to investment in current assets and the degree of Working Capital Leverage. The results are in line with the variations observed for CATAR and CANFAR.

B. Current Asset Structure Ratios

As observed from Table 6.5, the results of ANOVA also provide significant evidence that mean of the CA Structure Ratios widely vary indicating that there exists significant difference between the companies of Hotels and Restaurant Industry with respect to the current asset component mix, *i.e.,* proportion of inventories, receivables, prepaid

expenses, cash and bank balances, loans and advances and marketable securities to current assets. Highest variation is observed for ITCAR indicating that companies differ significantly in terms of maintaining level of inventories as a proportion of CA which is followed by MSTCAR, RTCAR, CBBTCAR, LATCAR, and PETCAR.

TABLE 6.5

SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	16.10805	24	0.671169	66.9076*	3.4E-115
	(ii) Within Groups	3.510948	350	0.010031		
2	**TDTAR**					
	(i) Between Groups	12.6311	24	0.526296	39.1454*	4.16E-84
	(ii) Within Groups	4.705627	350	0.013445		
3	**CLTAR**					
	(i) Between Groups	4.637638	24	0.193235	37.2743*	1.77E-81
	(ii) Within Groups	1.814445	350	0.005184		
4	**CATAR**					
	(i) Between Groups	16.21906	24	0.675794	98.7355*	5.6E-140
	(ii) Within Groups	2.395571	350	0.006844		
5	**CLCAR**					
	(i) Between Groups	146.852	24	6.118832	16.7325*	1.51E-44
	(ii) Within Groups	127.99	350	0.365686		
6	**NWCCAR**					
	(i) Between Groups	146.852	24	6.118832	16.7325*	1.51E-44
	(ii) Within Groups	127.99	350	0.365686		
7	**CANFAR***				[Critical Value of F = 1.85]	
	(i) Between Groups	624.5757	24	26.02399	28.8144*	3.86E-66
	(ii) Within Groups	293.5263	325#	0.903158		
8	**WCL***				[Critical Value of F = 1.85]	
	(i) Between Groups	18.52513	24	0.77188	61.0173*	3.6E-105
	(ii) Within Groups	4.11131	325#	0.01265		
Current Asset Structure Ratios						
9	**ITCAR**					
	(i) Between Groups	2.53748	24	0.105728	51.8298*	6.9E-100
	(ii) Within Groups	0.71397	350	0.00204		
10	**RTCAR**					
	(i) Between Groups	12.35971	24	0.514988	28.3546*	1.56E-67
	(ii) Within Groups	6.356843	350	0.018162		
11	**CBBTCAR**					
	(i) Between Groups	8.144326	24	0.339347	22.1096*	5.06E-56
	(ii) Within Groups	5.37194	350	0.015348		
12	**PETCAR**					
	(i) Between Groups	1.792041	24	0.074668	11.2503*	6.92E-31
	(ii) Within Groups	2.322945	350	0.006637		

TABLE 6.5 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
13	LATCAR					
	(i) Between Groups	4.272276	24	0.178011	21.4590*	1.02E-54
	(ii) Within Groups	2.903401	350	0.008295		
14	MSTCAR					
	(i) Between Groups	4.739613	24	0.197484	29.8296*	5.07E-70
	(ii) Within Groups	2.317142	350	0.00662		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	7.864225	24	0.327676	29.9024*	3.84E-70
	(ii) Within Groups	3.835363	350	0.010958		
16	DACECLR					
	(i) Between Groups	5.292117	24	0.220505	24.6895*	5.5E-61
	(ii) Within Groups	3.125888	350	0.008931		
17	PCLR					
	(i) Between Groups	10.39033	24	0.43293	24.7998*	3.43E-61
	(ii) Within Groups	6.109942	350	0.017457		
18	STBBCLR					
	(i) Between Groups	3.131325	24	0.1300472	10.8226*	1.01E-29
	(ii) Within Groups	4.219417	350	0.012055		
19	CFCCLR					
	(i) Between Groups	7.800137	24	0.325006	24.1657*	5.28E-60
	(ii) Within Groups	4.707161	350	0.013449		
20	OCLCLR					
	(i) Between Groups	4.04004	24	0.168335	16.3363*	1.24E-43
	(ii) Within Groups	3.606517	350	0.010304		
Liquidity Ratios						
21	CR					
	(i) Between Groups	430.1983	24	17.92493	11.3906*	2.89E-31
	(ii) Within Groups	550.7815	350	1.573661		
22	QR					
	(i) Between Groups	441.3482	24	18.38951	11.7951*	2.39E-32
	(ii) Within Groups	545.6787	350	1.559082		
23	ALR					
	(i) Between Groups	248.2675	24	10.34448	9.4404*	7.53E-26
	(ii) Within Groups	383.5206	350	1.095773		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	98.83971	24	4.118321	83.4982*	4.1E-129
	(ii) Within Groups	17.2628	350	0.049322		
25	CATR					
	(i) Between Groups	3665.819	24	152.7425	65.1524*	1.4E-113
	(ii) Within Groups	820.5356	350	2.344387		
26	WCTR#	[Critical Values of F: 1.867 (1%) and 1.562 (5%)]				
	(i) Between Groups	49427.89	23	2149.039	2.0836*	0.003
	(ii) Within Groups	346553.3	336	1031.409		

TABLE 6.5 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
27	RTR					
	(i) Between Groups	45550.36	24	583.979	29.3846*	1E-216
	(ii) Within Groups	21980.26	350	19.87365		
28	ACP					
	(i) Between Groups	2597901	24	108245.9	12.2382*	1.61E-33
	(ii) Within Groups	3095712	350	8844.892		
29	CBTR					
	(i) Between Groups	502056	24	20919	17.9480*	2.73E-47
	(ii) Within Groups	407937.9	350	1165.537		
30	CTR					
	(i) Between Groups	159076.3	24	6628.18	24.1040*	6.91E-60
	(ii) Within Groups	96243.94	350	274.9827		
31	APP					
	(i) Between Groups	584460.3	24	24352.51	23.6302*	5.5E-59
	(ii) Within Groups	360698.9	350	1030.568		
Profitability Ratios						
32	OPM					
	(i) Between Groups	207119.7	24	8629.988	47.3211*	1.21E-94
	(ii) Within Groups	63829.76	350	182.3707		
33	NPM					
	(i) Between Groups	152285.1	24	6345.212	18.8773*	2.52E-49
	(ii) Within Groups	117645.3	350	336.1295		
34	ROTA					
	(i) Between Groups	17632.53	24	734.6887	14.3802*	5.85E-39
	(ii) Within Groups	17881.6	350	51.0903		
35	EAT/TA					
	(i) Between Groups	11478.68	24	478.2782	12.3341*	9.05E-34
	(ii) Within Groups	13571.92	350	38.77693		
36	RONW					
	(i) Between Groups	91037.20	24	3793.22	0.9628	0.5156
	(ii) Within Groups	1378957	350	3939.88		

* Indicating significant results at 1% level of significance with Critical Value of F = 1.845

** Indicating significant results at 5% level of significance with Critical Value of F = 1.549

✱ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.

The WCTR of Jindal Hotels Limited was -3238 for the year 2001 due to which the industry average for that year was as low as -126.88. So this company was eliminated while analyzing the WCTR and its analysis is based on 24 companies.

$ Many of the companies had NIL inventory in atleast 1 year of the study period and hence it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. This is applicable to variances between the years for these industries.

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means widely vary indicating that companies in Hotels and Restaurant Industry differ significantly and they maintain different mix of current

liabilities as a source of financing the current assets. Highest variation is observed for TCCLR amongst all the Current Liabilities structure ratios indicating that amongst the component of current liabilities, the companies differ greatly in the proportion of trade credit to current liabilities. This is followed by PCLR, DACECLR, CFCCLR, OCLCLR and STBBCLR.

D. Liquidity Ratios

The results of ANOVA indicate significant evidence that mean of Liquidity ratios vary widely thereby indicating that there companies of Hotels and Restaurant Industry differ in their approach towards liquidity management. Highest variation is observed for QR followed by CR and ALR.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

The results of ANOVA for CAME Ratios and OC Variables provide significant evidence that their means vary widely between the companies for all ratios indicating that the asset utilization efficiency including the inventory, cash and credit management differ significantly between companies. Highest variation is observed for **TATR** indicating that the companies of Hotels and Restaurant Industry pursue different approaches in managing their total assets and they vary in terms of asset utilization. This result is in line with the highest variation observed for CATAR, which also may be the reason for such high variation in TATR. This is followed by CATR, RTR, CTR, APP, CBTR, ACP and WCTR. Moreover, from the combined results of RTR, ACP, CTR and APP it can be concluded that firms in Hotels and Restaurant Industry significantly differ in the credit management. Thus it is concluded that these companies follow different policies for asset management.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios provide significant evidence that their means vary widely between the companies. The resulting values of F-test are significant at 1% level of significance for all the profitability ratios except RONW thereby indicating that the profitability position of companies in Hotels and Restaurant Industry is significantly different. Highest variation is observed for OPM followed by NPM, ROTA and EAT/TA.

While analyzing the variances between companies of the Hotels and Restaurant Industry over a period of 15 years, significant variances were observed for all the 36 ratios at 1% level of significance and highest variance was observed for the CATAR. Hence, the null hypothesis that no significant variations exist between companies for selected WCM, LEV and PROF ratios is rejected for Hotels and Restaurant Industry.

6.3.1.2 Single Factor ANOVA between the years, of Hotels and Restaurant Industry

The results of single factor ANOVA between the years for 25 companies of Hotels and Restaurant Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.6.

TABLE 6.6

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.149015	14	0.010644	0.1968	0.999
	(ii) Within Groups	19.46999	360	0.054083		
2	**TDTAR**					
	(i) Between Groups	0.020519	14	0.001466	0.0305	1
	(ii) Within Groups	17.31621	360	0.048101		
3	**CLTAR**					
	(i) Between Groups	0.089993	14	0.006428	0.3637	0.9838
	(ii) Within Groups	6.36209	360	0.017672		
4	**CATAR**					
	(i) Between Groups	0.162749	14	0.011625	0.2268	0.999
	(ii) Within Groups	18.45188	360	0.051255		
5	**CLCAR**					
	(i) Between Groups	3.443612	14	0.245972	0.3263	0.991
	(ii) Within Groups	271.3984	360	0.753884		
6	**NWCCAR**					
	(i) Between Groups	3.443612	14	0.245972	0.3263	0.991
	(ii) Within Groups	271.3984	360	0.051255		
7	**CANFAR**	**[Critical Value of F = 2.183 (1%) and 1.749 (5%)]**				
	(i) Between Groups	20.30254	13	1.561734	0.3508	0.983
	(ii) Within Groups	4861.086	1092	4.451544		
8	**WCL**	**[Critical Value of F = 2.183 (1%) and 1.749 (5%)]**				
	(i) Between Groups	0.472155	13	0.03632	0.4479	0.952
	(ii) Within Groups	88.55088	1092	0.081091		
Current Asset Structure Ratios						
9	**ITCAR**					
	(i) Between Groups	0.053795	14	0.003842	0.4326	0.963
	(ii) Within Groups	3.197655	360	0.008882		
10	**RTCAR**					
	(i) Between Groups	0.593872	14	0.042419	0.8265	0.622
	(ii) Within Groups	18.12268	360	0.050341		
11	**CBBTCAR**					
	(i) Between Groups	0.380206	14	0.027158	0.7443	0.729
	(ii) Within Groups	13.13606	360	0.036489		
12	**PETCAR**					
	(i) Between Groups	0.414068	14	0.029576	2.8770*	0.000
	(ii) Within Groups	3.700917	360	0.01028		

TABLE 6.6 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
13	LATCAR					
	(i) Between Groups	0.160131	14	0.011438	0.5869	0.875
	(ii) Within Groups	7.015546	360	0.019477		
14	MSTCAR					
	(i) Between Groups	0.200352	14	0.014311	0.7514	0.721
	(ii) Within Groups	6.856402	360	0.019046		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.489299	14	0.03495	1.1224	0.336
	(ii) Within Groups	11.21029	360	0.03114		
16	DACECLR					
	(i) Between Groups	0.087813	14	0.006272	0.2711	0.996
	(ii) Within Groups	8.330191	360	0.023139		
17	PCLR					
	(i) Between Groups	0.685324	14	0.048592	1.1143	0.343
	(ii) Within Groups	15.81494	360	0.04393		
18	STBBCLR					
	(i) Between Groups	0.128515	14	0.00918	0.4576	0.954
	(ii) Within Groups	7.222228	360	0.020062		
19	CFCCLR					
	(i) Between Groups	0.15576	14	0.011126	0.3243	0.991
	(ii) Within Groups	12.35154	360	0.03431		
20	OCLCLR					
	(i) Between Groups	0.126206	14	0.009015	0.4315	0.964
	(ii) Within Groups	7.520351	360	0.02089		
Liquidity Ratios						
21	CR					
	(i) Between Groups	5.734524	14	0.409609	0.1520	0.999
	(ii) Within Groups	975.2453	360	2.709015		
22	QR					
	(i) Between Groups	5.605102	14	0.400364	0.1469	0.999
	(ii) Within Groups	981.4217	360	2.726172		
23	ALR					
	(i) Between Groups	9.538524	14	0.681321	0.3942	0.976
	(ii) Within Groups	622.2495	360	1.728471		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	1.86309	14	0.133078	0.4194	0.969
	(ii) Within Groups	114.2394	360	0.317332		
25	CATR					
	(i) Between Groups	47.85016	14	3.417869	0.2772	0.996
	(ii) Within Groups	4438.504	360	12.32918		
26	WCTR	[Critical Values of F: 2.134 (1%) and 1.721 (5%)]				
	(i) Between Groups	5151.505	14	368.679	0.3255	0.991
	(ii) Within Groups	390819	345	1132.811		

TABLE 6.6 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HOTELS & RESTAURANT INDUSTRY (25 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
27	RTR					
	(i) Between Groups	1135.532	14	81.10941	0.8056	0.663
	(ii) Within Groups	36246.07	360	100.6835		
28	ACP					
	(i) Between Groups	151556.6	14	10825.47	0.7032	0.771
	(ii) Within Groups	5542057	360	15394.6		
29	CBTR					
	(i) Between Groups	13153.53	14	939.5378	0.3771	0.981
	(ii) Within Groups	896840.4	360	2491.223		
30	CTR					
	(i) Between Groups	5465.733	14	390.4095	0.5625	0.894
	(ii) Within Groups	249854.5	360	694.0403		
31	APP					
	(i) Between Groups	30517.45	14	2179.818	0.8580	0.605
	(ii) Within Groups	914641.8	360	2540.672		
Profitability Ratios						
32	OPM					
	(i) Between Groups	14825.73	14	1058.981	1.4885	0.113
	(ii) Within Groups	256123.7	360	711.4548		
33	NPM					
	(i) Between Groups	12834.19	14	916.7277	1.2837	0.215
	(ii) Within Groups	257096.2	360	714.1561		
34	ROTA					
	(i) Between Groups	7061.756	14	504.4111	6.3822*	2E-11
	(ii) Within Groups	28452.38	360	79.03438		
35	EAT/TA					
	(i) Between Groups	4665.148	14	333.2248	5.8846*	2E-10
	(ii) Within Groups	20385.45	360	56.62626		
36	RONW					
	(i) Between Groups	88464.73	14	6318.909	1.6466	0.065
	(ii) Within Groups	1381529	360	3837.532		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.13 ** Indicating significant results at 5% level of significance with Critical Value of F = 1.72						

While analyzing the variance *between the years* of Hotels and Restaurant industry for all the selected parameters, significant variations were observed only for 3 ratios *viz,* PETCAR, ROTA and EAT/TA at 1% level of significance out of the 36 ratios.

The significant variations in ROTA and EAT/TA indicates that Hotels and Restaurant industry is not able to consistently maintain its profitability and operational efficiency measured as a percentage of total assets over the study period. Also the proportion of Prepaid Expenses to current assets has varied over the study period. However, no significant variations were observed for the remaining 33 ratios between the years.

Thus, it can be concluded that there were no significant variations in the means of selected ratios of WCP, LEV, Current Asset Structure (except PETCAR), Current Liabilities Structure, Liquidity, Profitability (except ROTA and EAT/TA), Efficiency as well as Operating Cycle Variables over the study period.

6.3.2 Single Factor ANOVA for IT$_{CA}$ Industry (20 Companies)

This section presents the results of Single Factor ANOVA between the 20 companies of IT$_{CA}$ Industry as well as between the 15 years for all the 20 companies for the selected parameters of WCM, LEV and Profitability. The results of ANOVA between the companies is presented and interpreted first followed by the results of ANOVA between the years.

6.3.2.1 Single Factor ANOVA between the companies of IT$_{CA}$ Industry

The results of single factor ANOVA between the 20 companies of IT$_{CA}$ Industry for all the parameters of WCM, LEV and Profitability is presented in Table 6.7. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- The results of this analysis provide significant evidence that means of the LEV, WCL and WCP ratios widely vary as observed from the Table 6.7 indicating that difference exists between the companies of IT$_{CA}$ Industry with respect to utilization of debt financing as well as aggressive/conservative working capital investment and financing policies. The variations are highest for CLTAR followed by TDTAR, CLCAR, NWCCAR, CATAR, CANFAR and LTDTAR.
- Significant variations are also observed for WCL, which indicates that there exist significant differences between the companies of IT$_{CA}$ Industry with respect to investment in current assets and the degree of Working Capital Leverage. The results are in line with the variations observed for CATAR and CANFAR. Hence, the null hypothesis that there are no significant variations between companies with respect to the mean WCL is rejected.

B. Current Asset Structure Ratios

As observed from Table 6.7, the results of ANOVA also provide significant evidence that mean of the Current Asset Structure Ratios widely vary indicating that there exists significant difference between the companies of IT$_{CA}$ Industry with respect to the current asset component mix. Highest variation is observed for PETCAR indicating that companies differ significantly in terms of proportion of prepaid expenses to current assets. This is followed by RTCAR, CBBTCAR, MSTCAR, LATCAR and ITCAR.

TABLE 6.7						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF ITeA INDUSTRY (20 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	LTDTAR					
	(i) Between Groups	4.061898	19	0.213784	16.5977*	1.26E-35
	(ii) Within Groups	3.606488	280	0.01288		
2	TDTAR					
	(i) Between Groups	10.03693	19	0.528259	23.8671*	9.5E-48
	(ii) Within Groups	6.197333	280	0.022133		
3	CLTAR					
	(i) Between Groups	10.99463	19	0.578665	30.6148*	3.19E-57
	(ii) Within Groups	5.292405	280	0.018901		
4	CATAR					
	(i) Between Groups	4.687506	19	0.246711	20.3222*	3.97E-42
	(ii) Within Groups	3.399197	280	0.01214		
5	CLCAR					
	(i) Between Groups	28.97503	19	1.525001	20.8008*	6.46E-43
	(ii) Within Groups	20.52804	280	0.073314		
6	NWCCAR					
	(i) Between Groups	30.2796	19	1.593663	20.6952*	9.62E-43
	(ii) Within Groups	21.56181	280	0.077006		
7	CANFAR#				[Critical Value of F at 1% = 1.98]	
	(i) Between Groups	1212.83	19	63.83315	19.7367*	4.85E-40
	(ii) Within Groups	840.9033	260	3.234244		
8	WCL#				[Critical Value of F at 1% = 1.98]	
	(i) Between Groups	11.0821	19	0.583268	15.6069*	5.73E-33
	(ii) Within Groups	9.716841	260	0.037372		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.749925	19	0.03947	5.7958*	3.34E-12
	(ii) Within Groups	1.906834	280	0.00681		
10	RTCAR					
	(i) Between Groups	6.087425	19	0.320391	16.5026*	1.88E-35
	(ii) Within Groups	5.436086	280	0.019415		
11	CBBTCAR					
	(i) Between Groups	2.725206	19	0.143432	11.9082*	2.18E-26
	(ii) Within Groups	3.37255	280	0.012045		
12	PETCAR					
	(i) Between Groups	2.86002	19	0.150527	33.1487*	1.95E-60
	(ii) Within Groups	1.271471	280	0.004541		
13	LATCAR					
	(i) Between Groups	1.140246	19	0.060013	6.3773*	1.17E-13
	(ii) Within Groups	2.634894	280	0.00941		
14	MSTCAR					
	(i) Between Groups	1.868753	19	0.098355	6.9432*	4.69E-15
	(ii) Within Groups	3.96643	280	0.014166		

TABLE 6.7 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF IT&A INDUSTRY (20 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	**TCCLR**					
	(i) Between Groups	5.651167	19	0.29743	11.8361*	3.1E-26
	(ii) Within Groups	7.036108	280	0.025129		
16	**DACECLR**					
	(i) Between Groups	4.077083	19	0.214583	12.1302*	7.43E-27
	(ii) Within Groups	4.953197	280	0.01769		
17	**PCLR**					
	(i) Between Groups	3.866692	19	0.20351	9.2105*	1.93E-20
	(ii) Within Groups	6.186748	280	0.022096		
18	**STBBCLR**					
	(i) Between Groups	2.307351	19	0.12144	7.3463*	4.88E-16
	(ii) Within Groups	4.628583	280	0.016531		
19	**CFCCLR**					
	(i) Between Groups	0.847672	19	0.044614	7.0113*	3.2E-15
	(ii) Within Groups	1.781694	280	0.006363		
20	**OCLCLR**					
	(i) Between Groups	6.355315	19	0.33449	13.5233*	9.78E-30
	(ii) Within Groups	6.920977	280	0.024718		
Liquidity Ratios						
21	**CR**					
	(i) Between Groups	881.5946	19	46.39971	12.7886*	3.19E-28
	(ii) Within Groups	1015.899	280	3.628212		
22	**QR**					
	(i) Between Groups	901.9242	19	47.4697	13.2168*	4.25E-29
	(ii) Within Groups	1005.652	280	3.591615		
23	**ALR**					
	(i) Between Groups	120.8307	19	6.359509	13.2028*	4.53E-29
	(ii) Within Groups	134.8696	280	0.481677		
Current Asset Management Efficiency Ratios						
24	**TATR**					
	(i) Between Groups	85.78364	19	4.514928	17.8247*	7.65E-38
	(ii) Within Groups	70.92303	280	0.253297		
25	**CATR**					
	(i) Between Groups	185.2523	19	9.750121	14.5729*	8.52E-32
	(ii) Within Groups	187.3362	280	0.669058		
26	**WCTR**					
	(i) Between Groups	126781.7	19	6672.721	0.9516	0.519
	(ii) Within Groups	1963503	280	7012.51		
27	**RTR**					
	(i) Between Groups	1122.863	19	59.09805	18.8094*	1.44E-39
	(ii) Within Groups	879.744	280	3.141943		
28	**ACP**					
	(i) Between Groups	9599577	19	505240.9	0.9714	0.495
	(ii) Within Groups	1.46E+08	280	520115.1		

TABLE 6.7 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF IT&A INDUSTRY (20 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
29	CBTR					
	(i) Between Groups	34460.06	19	1813.687	6.8688*	7.14E-15
	(ii) Within Groups	73933.11	280	264.0468		
30	CTR					
	(i) Between Groups	1.03+08	19	5424241	1.0163	0.442
	(ii) Within Groups	1.49E+09	280	5337020		
31	APP					
	(i) Between Groups	6481963	19	341156	1.0550	0.398
	(ii) Within Groups	90547538	280	323384.1		
Profitability Ratios						
32	OPM					
	(i) Between Groups	27248.2	19	1434.116	4.7649*	1.38E-09
	(ii) Within Groups	84273.43	280	300.9765		
33	NPM					
	(i) Between Groups	364475.5	19	1919.763	6.1464*	4.41E-13
	(ii) Within Groups	87455.07	280	312.3395		
34	ROTA					
	(i) Between Groups	27784.74	19	1462.355	8.1521*	5.69E-18
	(ii) Within Groups	50227.36	280	179.3834		
35	EAT/TA					
	(i) Between Groups	26527.56	19	1396.187	8.7846*	1.86E-19
	(ii) Within Groups	44501.93	280	158.9355		
36	RONW					
	(i) Between Groups	57153.9	19	3008.1	0.8033	0.7029
	(ii) Within Groups	1048546	280	3744.81		
* Indicating significant results at 1% level of significance with Critical Value of F = 1.971 ** Indicating significant results at 5% level of significance with Critical Value of F = 1.624						
✱ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances. $ Many of the companies had NIL inventory in atleast 1 year of the study period and hence it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. This is applicable to variances between the years for these industries.						

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means vary widely indicating that they maintain different mix of current liabilities as a source of financing the current assets. Highest variation is observed for OCCLR amongst all the Current Liabilities structure ratios indicating that amongst the component of current liabilities, the companies differ greatly in the proportion of other current liabilities to total current liabilities. This is followed by DACECLR, TCCLR, PCLR, STBBCLR and CFCCLR.

D. Liquidity Ratios

The results of ANOVA also indicate significant evidence that mean of Liquidity ratios widely vary. The resulting values of F-test are significant at 1% level of significance for all three liquidity ratios thereby indicating that there exists significant difference between the companies of IT$_{eA}$ Industry in liquidity management. Highest variation is observed for QR followed by ALR and CR.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

While examining the variations regarding CAME ratios mixed results are observed. Out of eight ratios for four ratios significant variations are observed. They are TATR, CATR, RTR and CBTR. It is surprising to note that whereas highest variance is observed for RTR, no significant variations are found for ACP. On the other hand for CTR and APP also no significant variations between the companies are observed for the period under study. This is also holding good for WCTR.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios provide significant evidence that their means vary widely between the companies for all the profitability ratios except RONW thereby indicating that the profitability position of companies in IT$_{eA}$ industry is significantly different. Highest variation is observed for EAT/TA indicating that the companies differ greatly with respect to their operational efficiency measured as a percentage of post tax returns on total assets and that the companies in IT$_{eA}$ Industry manage their operations differently. This is followed by ROTA, NPM and OPM.

While analyzing the variances between companies of the IT$_{eA}$ Industry over a period of 15 years, significant variances were observed for 31 out of the 36 ratios examined at 1% level of significance and highest variance was observed for the PETCAR. The 5 ratios for which significant variations were not observed are WCTR, ACP, CTR, APP and RONW.

6.3.2.2 Single Factor ANOVA between the years of IT$_{eA}$ Industry

The results of single factor ANOVA between the years for 20 companies of IT$_{eA}$ Industry for all the parameters of WCM, LEV and Profitability is presented in Table 6.8. While analyzing the variance *between the years* for IT$_{eA}$ industry for all the selected parameters, out of the 36 ratios, significant variations were observed for 8 ratios *viz,* ITCAR, MSTCAR and DACECLR at 1% level of significance whereas for RTCAR, PETCAR, LATCAR, CR and QR at 5% level of significance. No significant variations were observed for the remaining 28 ratios between the years.

These results indicate that there have been changes in the composition of current asset investment in the IT&A Industry over the study period, which has mainly been caused due to changes in level of investment in inventories, receivables, prepaid expenses, loans and advances and marketable securities. Also, there have been changes in the proportion of Deposits and Advances from Customers and Employees to current liabilities in the IT&A Industry over the study period. The significant variations also are observed for CR and QR indicating that over the study period there had been changes in the liquidity position of the IT&A Industry. ***Thus, it can be concluded*** that there were no significant variations in the means of selected ratios of WCP, LEV, Current Liabilities Structure (except DACECLR), PROF, CAME Ratios and Operating Cycle Variables over the study period. Significant variations are observed for Current Asset Structure Ratios (except CBBTCAR) and Liquidity Ratios (except ALR).

TABLE 6.8

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF IT&A INDUSTRY (20 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.361025	14	0.025788	1.0058	0.447
	(ii) Within Groups	7.30736	285	0.02564		
2	**TDTAR**					
	(i) Between Groups	0.589716	14	0.042123	0.7674	0.704
	(ii) Within Groups	15.64454	285	0.054893		
3	**CLTAR**					
	(i) Between Groups	0.567326	14	0.040523	0.7347	0.739
	(ii) Within Groups	15.71971	285	0.055157		
4	**CATAR**					
	(i) Between Groups	0.135657	14	0.00969	0.3473	0.987
	(ii) Within Groups	7.951047	285	0.027898		
5	**CLCAR**					
	(i) Between Groups	1.411369	14	0.100812	0.5974	0.867
	(ii) Within Groups	48.0917	285	0.168743		
6	**NWCCAR**					
	(i) Between Groups	1.990634	14	0.142188	0.8129	0.655
	(ii) Within Groups	49.85078	285	0.174915		
7	**CANFAR**	**[Critical Value of F = 2.197 (1%) and 1.757 (5%)]**				
	(i) Between Groups	17.75432	13	1.365717	0.1784	0.999
	(ii) Within Groups	2035.979	266	7.654056		
8	**WCL**	**[Critical Value of F = 2.197 (1%) and 1.757 (5%)]**				
	(i) Between Groups	1.215517	13	0.093501	1.2700	0.231
	(ii) Within Groups	19.58342	266	0.073622		

*** Indicating significant results at 1% level of significance with Critical Value of F = 2.14**

**** Indicating significant results at 5% level of significance with Critical Value of F = 1.73**

TABLE 6.8 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF IT&A INDUSTRY (20 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.378151	14	0.027011	3.3784*	4.62E-05
	(ii) Within Groups	2.278607	285	0.007995		
10	RTCAR					
	(i) Between Groups	0.973788	14	0.069556	1.8791**	0.028
	(ii) Within Groups	10.54972	285	0.037017		
11	CBBTCAR					
	(i) Between Groups	0.451149	14	0.32225	1.6265	0.072
	(ii) Within Groups	5.646607	285	0.019813		
12	PETCAR					
	(i) Between Groups	0.361637	14	0.025831	1.9528**	0.021
	(ii) Within Groups	3.769854	285	0.013228		
13	LATCAR					
	(i) Between Groups	0.324835	14	0.023202	1.9166**	0.025
	(ii) Within Groups	3.450306	285	0.012106		
14	MSTCAR					
	(i) Between Groups	0.802947	14	0.057353	3.2482*	8.36E-05
	(ii) Within Groups	5.032235	285	0.017657		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.416049	14	0.029718	0.6902	0.784
	(ii) Within Groups	12.27123	285	0.043057		
16	DACECLR					
	(i) Between Groups	1.072563	14	0.076612	2.7438*	0.001
	(ii) Within Groups	7.959916	285	0.027922		
17	PCLR					
	(i) Between Groups	0.480697	14	0.034336	1.0222	0.431
	(ii) Within Groups	9.572742	285	0.033589		
18	STBBCLR					
	(i) Between Groups	0.374351	14	0.026739	1.1614	0.305
	(ii) Within Groups	6.561583	285	0.023023		
19	CFCCLR					
	(i) Between Groups	0.120518	14	0.008608	0.9779	0.476
	(ii) Within Groups	2.508848	285	0.008803		
20	OCLCLR					
	(i) Between Groups	0.40632	14	0.029023	0.6427	0.828
	(ii) Within Groups	12.86997	285	0.045158		
Liquidity Ratios						
21	CR					
	(i) Between Groups	167.2531	14	11.94665	1.9678**	0.020
	(ii) Within Groups	1730.241	285	6.071021		
22	QR					
	(i) Between Groups	154.2924	14	11.02089	1.7915**	0.039
	(ii) Within Groups	1753.284	285	6.151873		

TABLE 6.8 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF IT&A INDUSTRY (20 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
23	**ALR**					
	(i) Between Groups	19.11759	14	1.365542	1.6450	0.067
	(ii) Within Groups	236.5827	285	0.830115		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	**TATR**					
	(i) Between Groups	3.891975	14	0.277998	0.5185	0.922
	(ii) Within Groups	152.8147	285	0.536192		
25	**CATR**					
	(i) Between Groups	6.873876	14	0.490991	0.9826	0.979
	(ii) Within Groups	365.7146	285	1.283209		
26	**WCTR**					
	(i) Between Groups	98526.11	14	7037.579	1.0070	0.446
	(ii) Within Groups	1991758	285	6988.626		
27	**RTR**					
	(i) Between Groups	50.75817	14	3.625584	0.5294	0.915
	(ii) Within Groups	1951.849	285	6.848593		
28	**ACP**					
	(i) Between Groups	7629058	14	544932.7	1.0522	0.402
	(ii) Within Groups	1.48E+08	285	517904.3		
29	**CBTR**					
	(i) Between Groups	4846.875	14	346.2053	0.9529	0.502
	(ii) Within Groups	103546.3	285	363.3203		
30	**CTR**					
	(i) Between Groups	74446545	14	5317610	0.9951	0.458
	(ii) Within Groups	1.52E+09	285	5543788		
31	**APP**					
	(i) Between Groups	4574993	14	326785.2	1.0074	0.446
	(ii) Within Groups	92454508	285	324401.8		
Profitability Ratios						
32	**OPM**					
	(i) Between Groups	3926.867	14	280.4905	0.7430	0.730
	(ii) Within Groups	107594.8	285	377.5255		
33	**NPM**					
	(i) Between Groups	4058.049	14	289.8606	0.6892	0.785
	(ii) Within Groups	119872.5	285	420.6054		
34	**ROTA**					
	(i) Between Groups	4992.947	14	356.6391	1.3920	0.156
	(ii) Within Groups	73019.16	285	256.2076		
35	**EAT/TA**					
	(i) Between Groups	4532.723	14	323.7659	1.3876	0.158
	(ii) Within Groups	66496.77	285	233.322		
36	**RONW**					
	(i) Between Groups	41263.10	14	2947.37	0.7892	0.681
	(ii) Within Groups	1064437	285	3734.87		

6.3.3 Single Factor ANOVA for Transport Services Industry (16 Companies)

This section presents the results of Single Factor ANOVA between the 16 companies of Transport Services Industry as well as between the 15 years for all the 16 companies for the selected parameters of WCM, LEV and PROF. The results of ANOVA between the companies is presented and interpreted first followed by the results of ANOVA between the years.

6.3.3.1 Single Factor ANOVA between the companies of Transport Services Industry

The results of single factor ANOVA between the 16 companies of Transport Services Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.9. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- The results of this analysis provide significant evidence that means of the LEV, WCL and Working Capital Policy (WCP) ratios widely vary as observed from the Table 6.9. The resulting values of F-test are significant at 1% level of significance for all the parameters of WCP and LEV thereby indicating that there exists significant difference between the companies of Transport Services Industry with respect to use of debt financing as well as aggressive/conservative working capital investment and financing policies. The variations are high for LTDTAR as compared to TDTAR indicating that the differences are greater between the firms in utilization of LTD to finance the total assets as compared to the total debt position.
- Significant variations between companies are observed for the current asset investment policy represented by CATAR and CANFAR. In addition, the highest variation is observed for CATAR thereby indicating that the companies greatly differ in the current asset investment policy pursued by them in terms of proportion of current assets held in the total assets structure. Significant variations between companies are also observed for the current asset financing policy followed by firms as represented by CLCAR, NWCCAR and CLTAR indicating that firms in Transport Services Industry differ in use of current liabilities and net working capital for financing their current assets. Variations are highest for CLTAR with indicating that the firms differ significantly in use of CL to finance their total assets.
- Significant variations observed for WCL indicates that firms in Transport Services Industry differ significantly with respect to investment in current assets and the degree of Working Capital Leverage. The results are in line with the variations observed for CATAR and CANFAR.

TABLE 6.9						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	LTDTAR					
	(i) Between Groups	5.220456	15	0.34803	33.3153*	1.15E-48
	(ii) Within Groups	2.340033	224	0.010447		
2	TDTAR					
	(i) Between Groups	5.957351	15	0.397157	25.9660*	7.34E-41
	(ii) Within Groups	3.426145	224	0.015295		
3	CLTAR					
	(i) Between Groups	3.481655	15	0.23211	30.2986*	1.31E-45
	(ii) Within Groups	1.716012	224	0.007661		
4	CATAR					
	(i) Between Groups	8.896221	15	0.593081	65.4301*	5.07E-73
	(ii) Within Groups	2.030414	224	0.009064		
5	CLCAR					
	(i) Between Groups	19.94122	15	1.329415	12.2706*	5.63E-22
	(ii) Within Groups	24.26852	224	0.108342		
6	NWCCAR					
	(i) Between Groups	19.94122	15	1.329415	12.2706*	5.63E-22
	(ii) Within Groups	24.26852	224	0.108342		
7	CANFAR *			[Critical Value of F at 1% = 2.13]		
	(i) Between Groups	573.0687	15	38.20458	56.6012*	7.95E-65
	(ii) Within Groups	140.3955	208	0.674978		
8	WCL*			[Critical Value of F at 1% = 2.13]		
	(i) Between Groups	9.354489	15	0.623633	41.9507*	1.75E-54
	(ii) Within Groups	3.092099	208	0.014866		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.857898	15	0.057193	19.9718*	1.93E-33
	(ii) Within Groups	0.641469	224	0.002864		
10	RTCAR					
	(i) Between Groups	8.48685	15	0.56579	25.1073*	7.3E-40
	(ii) Within Groups	5.047821	224	0.022535		
11	CBBTCAR					
	(i) Between Groups	6.830484	15	0.455366	23.6447*	4.07E-38
	(ii) Within Groups	4.313945	224	0.019259		
12	PETCAR					
	(i) Between Groups	0.500786	15	0.033386	11.8378*	2.99E-21
	(ii) Within Groups	0.631739	224	0.00282		
13	LATCAR					
	(i) Between Groups	0.457015	15	0.030468	4.8514*	3.72E-08
	(ii) Within Groups	1.406777	224	0.00628		
14	MSTCAR					
	(i) Between Groups	1.436254	15	0.09575	9.1363*	1.69E-16
	(ii) Within Groups	2.347558	224	0.01048		

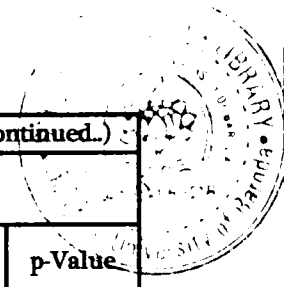

TABLE 6.9 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	5.407537	15	0.360502	26.8469*	7.29E-42
	(ii) Within Groups	3.007886	224	0.013428		
16	DACECLR					
	(i) Between Groups	0.783576	15	0.052238	10.2409*	1.73E-18
	(ii) Within Groups	1.142612	224	0.005101		
17	PCLR					
	(i) Between Groups	7.772717	15	0.518181	40.6596*	6.94E-55
	(ii) Within Groups	2.897037	224	0.012933		
18	STBBCLR					
	(i) Between Groups	2.914754	15	0.194317	17.4379*	6.07E-30
	(ii) Within Groups	2.496112	224	0.011143		
19	CFCCLR					
	(i) Between Groups	4.350993	15	0.290066	25.5683*	2.12E-40
	(ii) Within Groups	2.54123	224	0.011345		
20	OCLCLR					
	(i) Between Groups	5.451521	15	0.363435	45.6027*	1.86E-59
	(ii) Within Groups	1.785189	224	0.00797		
Liquidity Ratios						
21	CR					
	(i) Between Groups	457.8432	15	30.52288	19.7592*	3.71E-33
	(ii) Within Groups	346.0133	224	1.544702		
22	QR					
	(i) Between Groups	298.2403	15	19.88269	12.4917*	2.42E-22
	(ii) Within Groups	356.5339	224	1.591669		
23	ALR					
	(i) Between Groups	139.7306	15	9.315374	9.5752*	2.69E-17
	(ii) Within Groups	217.9229	224	0.97287		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	80.79937	15	5.386625	50.8033*	2.15E-63
	(ii) Within Groups	23.7505	224	0.106029		
25	CATR					
	(i) Between Groups	232.1429	15	15.47619	14.2878*	3.12E-25
	(ii) Within Groups	242.632	224	1.083179		
26	WCTR					
	(i) Between Groups	5112.703	15	340.8469	1.9890**	0.017
	(ii) Within Groups	38386.42	224	171.3679		
27	RTR					
	(i) Between Groups	9058.754	15	603.9169	18.9173*	5.15E-32
	(ii) Within Groups	7150.983	224	31.92403		
28	ACP					
	(i) Between Groups	867513.6	15	57834.24	12.3398*	4.32E-22
	(ii) Within Groups	1049847	224	4686.817		

TABLE 6.9 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
29	CBTR					
	(i) Between Groups	57836.58	15	3455.772	13.6788*	2.86E-24
	(ii) Within Groups	56590.75	224	252.6373		
30	CTR					
	(i) Between Groups	304209.5	15	20280.64	20.8113*	1.51E-34
	(ii) Within Groups	218288.1	224	974.5003		
31	APP					
	(i) Between Groups	168121.4	15	11208.09	8.2664*	7.01E-15
	(ii) Within Groups	303714.9	224	1355.87		
Profitability Ratios						
32	OPM					
	(i) Between Groups	41120.08	15	2741.338	11.5423*	9.48E-21
	(ii) Within Groups	53200.84	224	237.5037		
33	NPM					
	(i) Between Groups	23736.05	15	1582.403	7.4177*	2.91E-13
	(ii) Within Groups	47785.27	224	213.3271		
34	ROTA					
	(i) Between Groups	11072.7	15	738.18	19.8814*	2.55E-33
	(ii) Within Groups	8316.932	224	37.12916		
35	EAT/TA					
	(i) Between Groups	6834.663	15	455.6442	15.2434*	1.05E-26
	(ii) Within Groups	6695.654	224	29.89131		
36	RONW					
	(i) Between Groups	33025.2	15	2201.68	9.0257*	2.7E-16
	(ii) Within Groups	54641.2	224	243.934		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.120						
** Indicating significant results at 5% level of significance with Critical Value of F = 1.711						
✱ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.						
$ Many of the companies had NIL inventory in atleast 1 year of the study period and hence it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. This is applicable to variances between the years for these industries.						

B. Current Asset Structure Ratios

As observed from Table 6.9, the results of ANOVA provide significant evidence that mean of the Current Asset Structure Ratios widely vary thereby indicating that there exists significant difference between the companies of Transport Services Industry with respect to the structure of current assets maintained by them. Highest variation is observed for RTCAR indicating that among the Current Assets Structure ratios greater differences exist between companies in terms of proportion of receivables to current assets. This is followed by CBBTCAR, ITCAR, PETCAR, MSTCAR and LATCAR.

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means vary widely indicating that companies in Transport Services Industry differ significantly and they maintain different mix of current liabilities as a source of financing the current assets. Highest variation is observed for OCLCLR amongst all the CL structure ratios indicating that amongst the components of CL, the companies differ greatly in the proportion of other current liabilities to current liabilities. This is followed by PCLR, TCCLR, CFCCLR, STBBCLR and DACECLR.

D. Liquidity Ratios

The results of ANOVA further indicate significant evidence that mean of Liquidity ratios widely vary between the companies. Highest variation is observed for CR indicating that companies differ significantly in terms of maintaining short term liquidity as measured in terms of proportion of current assets to current liabilities. This is followed by QR and ALR.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

The results of ANOVA for CAME Ratios and OC Variables provide significant evidence that their means vary widely between the companies, for all ratios. Amongst the CAME Ratios, the highest variation is observed for TATR significant at 1% level of significance indicating that there exists significant difference between the companies of Transport Services Industry in terms of total asset management efficiency and is in line with the highest variation observed for CATAR, which also may be the reason for such high variation in TATR. The highest variation in TATR is followed by CTR, RTR, CATR, ACP, APP and WCTR. These variations necessarily indicate that the firms in Transport Services Industry differ in management of their current assets and utilize different levels of net working capital for operating sales. They also differ with respect to the collection policy as well as payment policy pursued by them. Further, the companies also differ in managing their cash substantially.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios provide significant evidence that their means vary widely between the companies thereby indicating that the profitability position of companies in Transport Services Industry is significantly different. Highest variation is observed for ROTA indicating that the companies differ greatly with respect to their operational efficiency measured as percentage of operating returns on total assets and that they manage their operations differently.

This is followed by EAT/TA, OPM, RONW and NPM.

While analyzing the variances between companies of the Transport Services Industry over a period of 15 years, significant variances were observed for all the 36 ratios, of which 37 ratios were found to be significant at 1% level of significance and 1 ratio, *i.e.,* WCTR at 5% level of significance. Highest variance was observed for the CATAR. Hence, the null hypothesis that no significant variations exist between companies of Transport Services Industry for selected parameters of WCM, LEV and Profitability is rejected.

6.3.3.2 Single Factor ANOVA between the years of Transport Services Industry

The results of single factor ANOVA between the years for 16 companies of Transport Services Industry for all the parameters of WCM, LEV and Profitability is presented in Table 6.10. *While analyzing the variance between the years* for Transport Services industry for all the selected parameters, out of the 36 ratios, significant variations were observed for only 2 ratios *viz,* CBBTCAR and for ALR. Significant variations in CBBTCAR indicates that there have been significant changes in the proportion of cash and bank balance to current assets in the Transport Services Industry over the study period which has affected the liquidity ratio ALR.

However, no significant variations were observed for the remaining 34 ratios. Thus, it can be concluded that there were no significant variations in the means of selected ratios of WCP, LEV, Current Asset Structure (except CBBTCAR), Current Liabilities Structure, Liquidity (except ALR), Profitability, Efficiency as well as Operating Cycle Variables over the study period.

Hence, the null hypothesis that there exists no significant variation between years for selected parameters of WCM, LEV and Profitability is broadly accepted.

TABLE 6.10

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.023903	14	0.001707	0.0510	1
	(ii) Within Groups	7.536586	225	0.033496		
2	**TDTAR**					
	(i) Between Groups	0.143767	14	0.010269	0.2501	0.998
	(ii) Within Groups	9.239729	225	0.041065		
3	**CLTAR**					
	(i) Between Groups	0.0849	14	0.006064	0.2669	0.997
	(ii) Within Groups	5.112767	225	0.022723		

TABLE 6.10 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
4	CATAR					
	(i) Between Groups	0.135657	14	0.00969	0.3473	0.987
	(ii) Within Groups	7.951047	225	0.027898		
5	CLCAR					
	(i) Between Groups	1.163992	14	0.083142	0.4346	0.962
	(ii) Within Groups	43.04574	225	0.191314		
6	NWCCAR					
	(i) Between Groups	1.163992	14	0.083142	0.4346	0.962
	(ii) Within Groups	43.04575	225	0.191314		
7	CANFAR	[Critical Value of F = 2.216 (1%) and 1.767 (5%)]				
	(i) Between Groups	3.577715	13	0.275209	0.0814	0.999
	(ii) Within Groups	709.8865	210	3.380412		
8	WCL	[Critical Value of F = 2.216 (1%) and 1.767 (5%)]				
	(i) Between Groups	0.250121	13	0.01924	0.3313	0.987
	(ii) Within Groups	12.19647	210	0.058078		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	0.060143	14	0.004296	0.6716	0.800868
	(ii) Within Groups	1.439224	225	0.006397		
10	RTCAR					
	(i) Between Groups	1.182674	14	0.084477	1.5388	0.099
	(ii) Within Groups	12.352	225	0.054898		
11	CBBTCAR					
	(i) Between Groups	1.128517	14	0.080608	1.8108**	0.038
	(ii) Within Groups	10.01591	225	0.044515		
12	PETCAR					
	(i) Between Groups	0.024214	14	0.00173	0.3511	0.986
	(ii) Within Groups	1.108312	225	0.004926		
13	LATCAR					
	(i) Between Groups	0.041432	14	0.002959	0.3654	0.983
	(ii) Within Groups	1.82236	225	0.008099		
14	MSTCAR					
	(i) Between Groups	0.16879	14	0.012053	0.7504	0.722
	(ii) Within Groups	3.615022	225	0.016067		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.096579	14	0.006899	0.1866	0.999
	(ii) Within Groups	8.318843	225	0.036973		
16	DACECLR					
	(i) Between Groups	0.046716	14	0.003337	0.3995	0.974127
	(ii) Within Groups	1.879472	225	0.008353		
17	PCLR					
	(i) Between Groups	0.080713	14	0.005765	0.1225	0.999
	(ii) Within Groups	10.58904	225	0.047062		

TABLE 6.10 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
18	STBBCLR					
	(i) Between Groups	0.1381	14	0.009864	0.4209	0.967
	(ii) Within Groups	5.272766	225	0.023435		
19	CFCCLR					
	(i) Between Groups	0.155156	14	0.011083	0.3701	0.982
	(ii) Within Groups	6.737067	225	0.029943		
20	OCLCLR					
	(i) Between Groups	0.154577	14	0.011041	0.3508	0.986
	(ii) Within Groups	7.082134	225	0.031476		
Liquidity Ratios						
21	CR					
	(i) Between Groups	36.38164	14	2.598689	0.7619	0.710
	(ii) Within Groups	767.4748	225	3.410999		
22	QR					
	(i) Between Groups	41.1245	14	2.937464	1.0771	0.380
	(ii) Within Groups	613.6497	225	2.727332		
23	ALR					
	(i) Between Groups	44.2956	14	3.163972	2.2718*	0.006
	(ii) Within Groups	313.3579	225	1.392702		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	1.766796	14	0.1262	0.2763	0.996
	(ii) Within Groups	102.7831	225	0.456814		
25	CATR					
	(i) Between Groups	16.08995	14	1.149282	0.5637	0.891
	(ii) Within Groups	458.685	225	2.0386		
26	WCTR					
	(i) Between Groups	3196.203	14	228.3002	1.2745	0.224463
	(ii) Within Groups	40302.92	225	179.1241		
27	RTR					
	(i) Between Groups	658.0635	14	47.00454	0.6801	0.793
	(ii) Within Groups	15551.67	225	69.11855		
28	ACP					
	(i) Between Groups	129475.2	14	9248.229	1.1639	0.305
	(ii) Within Groups	1787885	225	7946.157		
29	CBTR					
	(i) Between Groups	7098.721	14	507.0515	1.1259	0.336061
	(ii) Within Groups	101328.6	225	450.3494		
30	CTR					
	(i) Between Groups	15080.11	14	1077.151	0.4776	0.943
	(ii) Within Groups	507417.5	225	2255.189		
31	APP					
	(i) Between Groups	18758.98	14	1339.927	0.6654	0.807
	(ii) Within Groups	453077.4	225	2013.677		

TABLE 6.10 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF TRANSPORT SERVICES INDUSTRY (16 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Profitability Ratios						
32	OPM					
	(i) Between Groups	5595.546	14	399.6604	1.0135	0.440624
	(ii) Within Groups	88725.67	225	394.3363		
33	NPM					
	(i) Between Groups	5282.162	14	377.2973	1.2816	0.220
	(ii) Within Groups	66239.15	225	294.3962		
34	ROTA					
	(i) Between Groups	942.4887	14	67.32062	0.8211	0.646
	(ii) Within Groups	18447.14	225	81.9873		
35	EAT/TA					
	(i) Between Groups	967.2531	14	69.08951	1.2374	0.249
	(ii) Within Groups	12563.06	225	55.83584		
36	RONW					
	(i) Between Groups	6252.29	14	446.592	1.2342	0.252
	(ii) Within Groups	81414.2	225	361.841		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.16 ** Indicating significant results at 5% level of significance with Critical Value of F = 1.74						

6.3.4 Single Factor ANOVA for Health Services Industry (7 Companies)

This section presents the results of Single Factor ANOVA between the 7 Companies of Health Services Industry as well as between the 15 years for all the 7 Companies for the selected parameters of WCM, LEV and PROF. The results of ANOVA between the companies is presented and interpreted first followed by the results of ANOVA between the years.

6.3.4.1 Single Factor ANOVA between the companies of Health Services Industry

The results of single factor ANOVA between the 7 Companies of Health Services Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.11. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- As observed from Table 6.11, the results of ANOVA provide significant evidence that means of the LEV, WCL and Working Capital Policy (WCP) ratios widely vary thereby indicating that there exists significant difference between the companies of Health Services Industry with respect to use of debt financing as well as aggressive/conservative working capital investment and financing policies. The variations are high for LTDTAR as compared to TDTAR indicating that the differences are greater within the companies in the Health Services Industry in

utilization of long-term debt to finance the total assets as compared to the total debt position.

- Significant variations between companies observed for the current asset investment policy represented by CATAR and CANFAR indicates that the companies greatly differ in the current asset investment policy pursued by them. The highest variation is observed for CATAR thereby conveying that greater differences exist between companies in terms of proportion of current assets held in the total assets structure.
- Significant variations between companies observed for the current asset financing policy pursued by firms as represented by CLCAR, NWCCAR and CLTAR indicate that firms differ in use of current liabilities and NWC for financing their current assets. Variations are highest for CLCAR & NWCCAR indicating that the firms in Health Services Industry differ significantly in use of CL and NWC to finance their CA.
- Significant variations observed for WCL which indicates that there exists significant difference between the companies of Health Services Industry with respect to investment in current assets and the degree of Working Capital Leverage which is in line with the variations observed for CATAR and CANFAR.

B. Current Asset Structure Ratios

As observed from Table 6.11, the mean of the Current Asset Structure Ratios widely vary indicating that there exists significant difference between the companies of Health Services Industry with respect to the current asset component mix. Highest variation is observed for MSTCAR indicating that companies significantly differ in terms proportion of marketable securities to current assets, *i.e.,* with respect to level of investment in marketable securities. This is followed by CBBTCAR, ITCAR, PETCAR, LATCAR and RTCAR.

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means vary widely except DACECLR, indicating that companies of Health Services Industry they maintain different mix of current liabilities as a source of financing the current assets. Highest variation is observed for OCLCLR which is followed by PCLR, STBBCLR, CFCCLR, TCCLR and DACECLR.

D. Liquidity Ratios

The results of ANOVA also indicate significant evidence that mean of Liquidity ratios widely vary thereby indicating that there exists significant difference between the companies in liquidity management. Highest variation is observed for CR followed by

QR and ALR indicating that companies differ significantly in terms of maintaining short term liquidity as measured in terms of proportion of current assets or quick assets or cash assets to current liabilities. Hence, it is concluded that companies of Health Services Industry are managing liquidity distinctively.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

- The results of ANOVA for CAME Ratios and OC Variables provide significant evidence that their means vary widely between the companies for all ratios except WCTR, CTR and APP. *Amongst the CAME Ratios,* highest variation is observed for CATR indicating that highest variations between the companies of Health Services Industry exist in terms of current asset management efficiency. Significant variations observed in CBTR indicate that there exists difference between companies of Health Services Industry with respect to cash management efficiency. Significant variations observed in ITR and IHP indicating differences between firms of the industry with respect to inventory management.
- The F value of RTR and ACP is significant at 1% level of significance indicating that there exist significant variations between the companies of Health Services Industry in managing their receivables. It is in line with the results observed for RTCAR. Thus, it can be concluded that firms in Health Services industry pursue different credit and collection policy and manage their receivables distinctively. The significant variations observed for CBTR indicates that companies manage their cash assets peculiarly. *No significant variations* observed for CTR, WCTR and APP indicates that the firms of Health Services industry follow similar approach in payables management and utilization of net working capital for operating sales.
- The F Value of OC and NTC is also found to be significant at 1% level of significance indicating that significant variations exist between firms in the length of Operating and Net Trade Cycle which is very much obvious looking at the results of all CAME and the CA Structure Ratios. Thus, it can be concluded that approaches used by the firms for managing their receivables, cash and inventory significantly vary resulting to differences in OC and NTC. *Thus, it is concluded that* firms in Health Services Industry differ in the asset utilization efficiency as well as follow different policies for management of inventory, cash and credit.

F. Profitability Ratios

- The results of ANOVA for Profitability Ratios provide significant evidence that their means vary widely between the companies. The resulting values of F-test are significant at 1% level of significance for OPM, NPM and ROTA whereas at 5%

level for EAT/TA thereby indicating that the profitability position of companies in Health Services Industry is significantly different. However, no significant variations are observed for RONW at 1% and 5% levels of significance.

- Highest variation is observed for NPM indicating that the companies differ greatly with respect to their overall ability to turn each rupee of sales into net profit and that the companies in Health Services Industry manage their operations differently as also evidenced by the results of WCP, Current Asset Structure, Current Liabilities Structure and Liquidity Ratios.

While analyzing the variances between companies of the Health Services Industry over a period of 15 years, significant variances were observed for 36 out of 40 ratios, of which 34 ratios were found to be significant at 1% level of significance whereas 2 ratios, *i.e.,* DACECLR and EAT/TA at 5% level of significance. Significant variances were not observed for WCTR, CTR, APP and RONW at 1 % and 5 % levels of significance. Highest variance was observed for the OCLCLR.

Hence, the null hypothesis that no significant variations exist between companies for selected parameters of WCM, LEV and Profitability is broadly rejected.

TABLE 6.11

SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HEALTH SERVICES INDUSTRY (7 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	1.098191	6	0.183032	14.1936*	1.42E-11
	(ii) Within Groups	1.263751	98	0.012895		
2	**TDTAR**					
	(i) Between Groups	1.090386	6	0.181731	8.6789*	1.41E-07
	(ii) Within Groups	2.052068	98	0.020939		
3	**CLTAR**					
	(i) Between Groups	0.218279	6	0.03638	3.1175*	0.008
	(ii) Within Groups	1.143633	98	0.01167		
4	**CATAR**					
	(i) Between Groups	1.192918	6	0.19882	21.9618*	3.18E-16
	(ii) Within Groups	0.88719	98	0.009053		
5	**CLCAR**					
	(i) Between Groups	14.41127	6	2.401879	19.1566*	1.18E-14
	(ii) Within Groups	12.28739	98	0.125381		
6	**NWCCAR**					
	(i) Between Groups	14.41127	6	2.401879	19.1566*	1.18E-14
	(ii) Within Groups	12.28739	98	0.125381		
7	**CANFAR***				**[Critical Value of F at 1% = 3.01]**	
	(i) Between Groups	8.361698	6	1.393616	11.8195*	9.2E-10
	(ii) Within Groups	10.72968	91	0.117909		

TABLE 6.11 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HEALTH SERVICES INDUSTRY (7 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
8	WCL*				[Critical Value of F at 1% = 3.01]	
	(i) Between Groups	1.448138	6	0.241356	18.4930*	6.1E-14
	(ii) Within Groups	1.187661	91	0.013051		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	1.251055	6	0.208509	23.5299*	4.7E-17
	(ii) Within Groups	0.868422	98	0.008861		
10	RTCAR					
	(i) Between Groups	1.32889	6	0.221482	7.6895*	8.77E-07
	(ii) Within Groups	2.822717	98	0.028803		
11	CBBTCAR					
	(i) Between Groups	2.032398	6	0.338733	24.9872*	8.48E-18
	(ii) Within Groups	1.328515	98	0.013556		
12	PETCAR					
	(i) Between Groups	0.455408	6	0.075901	16.2835*	6.33E-13
	(ii) Within Groups	0.4568	98	0.004661		
13	LATCAR					
	(i) Between Groups	1.596002	6	0.266	9.0428*	7.35E-08
	(ii) Within Groups	2.883543	98	0.029424		
14	MSTCAR					
	(i) Between Groups	0.526849	6	0.087808	50.7759*	6.27E-28
	(ii) Within Groups	0.16474	98	0.001729		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.585171	6	0.097528	4.1494*	0.001
	(ii) Within Groups	2.303421	98	0.023504		
16	DACECLR					
	(i) Between Groups	0.028132	6	0.004689	2.8341**	.0.014
	(ii) Within Groups	0.162127	98	0.001654		
17	PCLR					
	(i) Between Groups	2.620754	6	0.436792	18.5207*	2.77E-14
	(ii) Within Groups	2.311238	98	0.023584		
18	STBBCLR					
	(i) Between Groups	1.718316	6	0.286386	12.7937*	1.27E-10
	(ii) Within Groups	2.193717	98	0.022385		
19	CFCCLR					
	(i) Between Groups	0.328024	6	0.054671	5.7376*	3.79E-05
	(ii) Within Groups	0.933797	98	0.009529		
20	OCLCLR					
	(i) Between Groups	1.488605	6	0.248101	40.6500*	1.69E-24
	(ii) Within Groups	0.598127	98	0.006103		
Liquidity Ratios						
21	CR					
	(i) Between Groups	44.89532	6	7.482553	6.3192*	1.21E-05
	(ii) Within Groups	116.0417	98	1.184099		

TABLE 6.11 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HEALTH SERVICES INDUSTRY (7 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
22	QR					
	(i) Between Groups	35.81508	6	5.96918	4.9296*	0.000
	(ii) Within Groups	118.6665	98	1.210883		
23	ALR					
	(i) Between Groups	14.142	6	2.357	3.6762*	0.003
	(ii) Within Groups	62.83242	98	0.641147		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	6.344837	6	1.057473	8.5947*	1.65E-07
	(ii) Within Groups	12.05772	98	0.123038		
25	CATR					
	(i) Between Groups	264.3775	6	44.06291	29.5757*	5.15E-20
	(ii) Within Groups	146.0037	98	1.489833		
26	WCTR					
	(i) Between Groups	18465.78	6	3077.63	0.6109	0.721
	(ii) Within Groups	493700.4	98	5037.759		
27	ITR					
	(i) Between Groups	47410.94	6	7901.823	17.8063*	7.36E-14
	(ii) Within Groups	43488.96	98	443.7649		
28	IHP					
	(i) Between Groups	29017.7	6	4836.283	10.2278*	9.05E-09
	(ii) Within Groups	46339.99	98	472.857		
29	RTR					
	(i) Between Groups	45550.36	6	583.979	29.3846*	1E-216
	(ii) Within Groups	21980.26	98	19.87365		
30	ACP					
	(i) Between Groups	94245.85	6	15707.64	6.9505*	3.56E-06
	(ii) Within Groups	221471.7	98	2259.916		
31	CBTR#	[Critical Values of F: 3.243 (1%) and 2.323 (5%)]				
	(i) Between Groups	86505.52	5	17301.1	27.5115*	2.18E-16
	(ii) Within Groups	52824.93	84	628.8682		
32	CTR					
	(i) Between Groups	907.7073	6	151.2845	0.9387	0.471
	(ii) Within Groups	15794.81	98	161.1716		
33	APP					
	(i) Between Groups	13524.89	6	2254.148	1.7859	0.110
	(ii) Within Groups	123698.1	98	1262.225		
34	OC					
	(i) Between Groups	169627.3	6	28271.21	6.8616*	4.22E-06
	(ii) Within Groups	403777.8	98	4120.182		
35	NTC					
	(i) Between Groups	128851.9	6	21475.31	8.6688*	1.44E-07
	(ii) Within Groups	242777.5	98	2477.321		

TABLE 6.11 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF HEALTH SERVICES INDUSTRY (7 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Profitability Ratios						
36	OPM					
	(i) Between Groups	5063.104	6	843.8506	3.1097*	0.008
	(ii) Within Groups	26593.35	350	271.3607		
37	NPM					
	(i) Between Groups	6479.512	6	1079.919	3.8799*	0.002
	(ii) Within Groups	27276.78	98	278.3345		
38	ROTA					
	(i) Between Groups	2386.678	6	397.7797	3.8247*	0.002
	(ii) Within Groups	10192.38	98	104.0039		
39	EAT/TA					
	(i) Between Groups	1519.921	6	253.3201	2.9582**	0.011
	(ii) Within Groups	8392.088	98	85.63355		
40	RONW					
	(i) Between Groups	5539.14	6	923.19	0.8772	0.515
	(ii) Within Groups	103136	98	1052.41		

* Indicating significant results at 1% level of significance with Critical Value of F = 2.992

** Indicating significant results at 5% level of significance with Critical Value of F = 2.193

❋ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.

The CBTR of Secunderabad Healthcare Ltd. was found to be very high and it affected the entire industry mean CBTR for all the years and So this company was eliminated while analyzing the CBTR and its analysis is based on 6 companies which is also applicable for between the years analysis of variances

6.3.4.2 Single Factor ANOVA between the years of Health Services Industry

The results of single factor ANOVA between the years for 7 Companies of Health Services Industry for all the parameters of WCM, LEV and Profitability is presented in Table 6.12.

While analyzing the variance between the years for Health Services Industry for all the selected parameters, significant variations were observed for CLTAR at 1% level of significance and for TDTAR, ALR at 5% level of significance. Thus of the 40 ratios, only for 3 ratios, significant variations existed.

Significant variations observed for CLTAR indicate that there have been significant changes in the proportion of Current Liabilities to Total Assets as a source of total asset financing in the Health Services Industry over the study period, which has lead to significant variations in total debt position as represented by TDTAR. The significant variation observed for ALR indicates that over the study period there have been changes in the absolute liquidity position of the Health Services Industry.

However, no significant variations were observed for the remaining 37 ratios between the years. Thus, it can be concluded that there were no significant variations in the means of selected parameters of WCP (except CLTAR), LEV (except TDTAR), Current Asset Structure, Current Liabilities Structure, Liquidity (except ALR) and Efficiency as well as Operating Cycle Variables over the study period. Hence, the null hypothesis that there exists no significant variation between years for selected parameters of WCM, LEV and Profitability is broadly accepted.

TABLE 6.12

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HEALTH SERVICES INDUSTRY (7 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.287946	14	0.020568	0.8925	0.569
	(ii) Within Groups	2.073996	90	0.023044		
2	**TDTAR**					
	(i) Between Groups	0.749698	14	0.001466	2.0142**	0.025
	(ii) Within Groups	2.392756	90	0.026586		
3	**CLTAR**					
	(i) Between Groups	0.367648	14	0.026261	2.3771*	0.007
	(ii) Within Groups	0.994264	90	0.011047		
4	**CATAR**					
	(i) Between Groups	0.347739	14	0.024839	1.2904	0.229
	(ii) Within Groups	1.732369	90	0.0019249		
5	**CLCAR**					
	(i) Between Groups	1.516531	14	0.108324	0.3872	0.975
	(ii) Within Groups	25.181213	90	0.27949		
6	**NWCCAR**					
	(i) Between Groups	1.516531	14	0.108324	0.3872	0.975
	(ii) Within Groups	25.181213	90	0.27949		
7	**CANFAR**	[Critical Value of F = 2.349 (1%) and 1.839 (5%)]				
	(i) Between Groups	4.163691	13	0.320284	1.8023	0.056
	(ii) Within Groups	14.92769	84	0.177711		
8	**WCL**	[Critical Value of F = 2.349 (1%) and 1.839 (5%)]				
	(i) Between Groups	0.526933	13	0.040533	1.6145	0.097
	(ii) Within Groups	2.108866	84	0.025106		
Current Asset Structure Ratios						
9	**ITCAR**					
	(i) Between Groups	0.023148	14	0.001653	0.0710	0.999
	(ii) Within Groups	2.096329	90	0.023293		
10	**RTCAR**					
	(i) Between Groups	0.710763	14	0.050769	1.3279	0.207
	(ii) Within Groups	3.440844	90	0.038232		
11	**CBBTCAR**					
	(i) Between Groups	0.363511	14	0.025965	0.7796	0.688179
	(ii) Within Groups	2.997402	90	0.033304		

TABLE 6.12 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HEALTH SERVICES INDUSTRY (7 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
12	PETCAR					
	(i) Between Groups	0.06183	14	0.004416	0.4674	0.944633
	(ii) Within Groups	0.85.378	90	0.009449		
13	LATCAR					
	(i) Between Groups	0.834872	14	0.059634	1.4726	0.138
	(ii) Within Groups	3.664673	90	0.040496		
14	MSTCAR					
	(i) Between Groups	0.033576	14	0.002398	0.3257	0.989
	(ii) Within Groups	0.662747	90	0.007364		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.248822	14	0.017773	0.6060	0.854
	(ii) Within Groups	2.639769	90	0.029331		
16	DACECLR					
	(i) Between Groups	0.018767	14	0.001341	0.7035	0.765
	(ii) Within Groups	0.171492	90	0.001905		
17	PCLR					
	(i) Between Groups	0.301495	14	0.021535	0.4186	0.965
	(ii) Within Groups	4.630497	90	0.05145		
18	STBBCLR					
	(i) Between Groups	0.200491	14	0.014321	0.3473	0.985
	(ii) Within Groups	3.711542	90	0.041239		
19	CFCCLR					
	(i) Between Groups	0.08438	14	0.006027	0.4607	0.948
	(ii) Within Groups	1.177442	90	0.013083		
20	OCLCLR					
	(i) Between Groups	0.058579	14	0.004184	0.1857	0.999
	(ii) Within Groups	2.028153	90	0.022535		
Liquidity Ratios						
21	CR					
	(i) Between Groups	21.39831	14	1.528451	0.9858	0.474244
	(ii) Within Groups	139.5387	90	1.55043		
22	QR					
	(i) Between Groups	22.80398	14	1.628856	1.1133	0.358
	(ii) Within Groups	131.6776	90	1.463084		
23	ALR					
	(i) Between Groups	17.06244	14	1.218746	1.8308**	0.046
	(ii) Within Groups	59.91198	90	0.665689		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	2.48939	14	0.177814	1.0057	0.455
	(ii) Within Groups	15.91316	90	0.176813		
25	CATR					
	(i) Between Groups	9.456819	14	0.675487	0.1516	0.999
	(ii) Within Groups	400.9243	90	4.454715		

TABLE 6.12 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF HEALTH SERVICES INDUSTRY (7 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
26	**WCTR**					
	(i) Between Groups	71384.65	14	5098.904	1.0411	0.421
	(ii) Within Groups	440781.5	90	4897.573		
27	**ITR**					
	(i) Between Groups	3825.502	14	273.2501	0.2824	0.995
	(ii) Within Groups	87074.4	90	967.4933		
28	**IHP**					
	(i) Between Groups	4927.78	14	351.9843	0.4498	0.95277
	(ii) Within Groups	70429.9	90	782.5545		
29	**RTR**					
	(i) Between Groups	207.7786	14	14.84133	0.2005	0.999
	(ii) Within Groups	6662.041	90	74.02268		
30	**ACP**					
	(i) Between Groups	18718.43	14	1337.031	0.4052	0.986
	(ii) Within Groups	296999.1	90	3299.991		
31	**CBTR**	[Critical Values of F: 2.329 (1%) and 1.826 (5%)]				
	(i) Between Groups	9073.327	14	648.0948	0.3732	0.978597
	(ii) Within Groups	130257.1	75	1736.762		
32	**CTR**					
	(i) Between Groups	2418.895	14	172.7782	1.0887	0.379
	(ii) Within Groups	14283.63	90	158.707		
33	**APP**					
	(i) Between Groups	20684.38	14	1477.456	1.1410	0.335
	(ii) Within Groups	116538.6	90	1294.873		
34	**OC**					
	(i) Between Groups	28929.11	14	2066.365	0.3416	0.986306
	(ii) Within Groups	544476	90	6049.733		
35	**NTC**					
	(i) Between Groups	27716.8	14	1979.771	0.5181	0.917
	(ii) Within Groups	343912.6	90	3821.251		
Profitability Ratios						
36	**OPM**					
	(i) Between Groups	6411.073	14	457.9338	1.6325	0.085
	(ii) Within Groups	25245.38	90	280.5042		
37	**NPM**					
	(i) Between Groups	5208.129	14	372.0092	1.1728	0.309778
	(ii) Within Groups	10900.34	90	121.1149		
38	**ROTA**					
	(i) Between Groups	1678.723	14	119.9088	0.9900	0.470
	(ii) Within Groups	10900.34	90	121.1149		
39	**EAT/TA**					
	(i) Between Groups	1368.664	14	97.76168	1.0299	0.432
	(ii) Within Groups	8543.346	90	94.92606		
40	**RONW**					
	(i) Between Groups	15892.3	14	1135.16	1.1011	0.368
	(ii) Within Groups	92783.3	90	1030.93		

* Indicating significant results at 1% level of significance with Critical Value of F = 2.13

** Indicating significant results at 5% level of significance with Critical Value of F = 1.72

6.3.5 Single Factor ANOVA for Miscellaneous Services Industry (9 Companies)

This section presents the results of Single Factor ANOVA between the 9 companies of Miscellaneous Services Industry as well as between the 15 years for all the 9 companies for the selected parameters of WCM, LEV and PROF. The results of ANOVA between the companies is presented and interpreted first followed by the results of ANOVA between the years.

6.3.5.1 Single Factor ANOVA between the companies of Miscellaneous Services Industry

The results of single factor ANOVA between the 9 firms of Miscellaneous Services Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.13. The results of the analysis are interpreted as per the group to which each ratio belongs.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

- From the perusal of Table 6.13, it is observed that means of the LEV, WCL and WCP ratios widely vary thereby indicating that there exists significant difference between the companies of Miscellaneous Services Industry with respect to utilization of debt financing, aggressive/conservative working capital investment and financing policies as well as degree of Working Capital Leverage.
- The variations are high for TDTAR as compared to LTDTAR indicating that the differences are greater within companies of Miscellaneous Services Industry in the proportion of total debt to total assets as compared to long-term debt position. The reason for the high variation in TDTAR can be assigned to the high variations in CLTAR.
- Significant variations between companies are observed for the current asset investment policy represented by CATAR and CANFAR. The highest variation is observed for CATAR which indicates that the companies greatly differ in terms of proportion of current assets held in the total assets structure. It also is indicative of distinctive current asset investment policy pursued by them.
- Significant variations between companies are also observed for the current asset financing policy pursued by firms as represented by CLCAR, NWCCAR and CLTAR indicating that firms in Miscellaneous Services industry differ in use of current liabilities and NWC for financing their current assets. Also, variations are highest for CLTAR indicating that the firms in Miscellaneous Services industry differ significantly in use of current liabilities to finance their total assets. Hence, the null hypothesis that there are no significant variations between companies with respect to LEV and WCP ratios is rejected.

TABLE 6.13						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	LTDTAR					
	(i) Between Groups	1.438341	8	0.179793	14.6972*	5E-15
	(ii) Within Groups	1.541379	126	0.012233		
2	TDTAR					
	(i) Between Groups	6.541922	8	0.81774	37.9165*	4.72E-30
	(ii) Within Groups	2.717425	126	0.021567		
3	CLTAR					
	(i) Between Groups	5.187633	8	0.648454	34.9795*	1.52E-28
	(ii) Within Groups	2.335802	126	0.018538		
4	CATAR					
	(i) Between Groups	3.551831	8	0.443979	44.2977*	4.52E-33
	(ii) Within Groups	1.262851	126	0.010023		
5	CLCAR					
	(i) Between Groups	29.00115	8	3.625144	17.8607*	1.3E-17
	(ii) Within Groups	25.57394	126	0.202968		
6	NWCCAR					
	(i) Between Groups	29.00115	8	3.625144	17.8607*	1.3E-17
	(ii) Within Groups	25.57394	126	0.202968		
7	CANFAR *				[Critical Value of F = 2.67]	
	(i) Between Groups	65.2888	8	8.1611	30.8420*	1.8E-25
	(ii) Within Groups	30.9593	117	0.26461		
8	WCL*				[Critical Value of F = 2.67]	
	(i) Between Groups	3.485101	8	0.435638	23.7665*	2.73E-21
	(ii) Within Groups	2.144596	117	0.01833		
Current Asset Structure Ratios						
9	ITCAR					
	(i) Between Groups	2.056029	8	0.257004	31.0287*	2.25E-26
	(ii) Within Groups	1.043624	126	0.008283		
10	RTCAR					
	(i) Between Groups	2.984628	8	0.373078	13.7722*	3.16E-14
	(ii) Within Groups	3.413245	126	0.027089		
11	CBBTCAR					
	(i) Between Groups	0.435907	8	0.054488	3.8594*	0.000
	(ii) Within Groups	1.778907	126	0.014118		
12	PETCAR					
	(i) Between Groups	0.178533	8	0.022317	6.4424*	5.22E-07
	(ii) Within Groups	0.436468	126	0.003464		
13	LATCAR					
	(i) Between Groups	1.538526	8	0.192316	18.2110*	6.97E-18
	(ii) Within Groups	1.330614	126	0.01056		
14	MSTCAR					
	(i) Between Groups	1.127068	8	0.140884	7.8172*	1.73E-08
	(ii) Within Groups	2.270794	126	0.018022		

TABLE 6.13 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Liabilities Structure Ratios						
15	**TCCLR**					
	(i) Between Groups	2.662513	8	0.332814	12.9442*	1.72E-13
	(ii) Within Groups	3.239636	126	0.025711		
16	**DACECLR**					
	(i) Between Groups	2.503367	8	0.312921	16.2922*	2.33E-16
	(ii) Within Groups	2.420058	126	0.019207		
17	**PCLR**					
	(i) Between Groups	1.854766	8	0.231846	16.3414*	2.12E-16
	(ii) Within Groups	1.787644	126	0.014188		
18	**STBBCLR**					
	(i) Between Groups	1.673077	8	0.209135	7.8825*	1.47E-08
	(ii) Within Groups	3.342966	126	0.026531		
19	**CFCCLR**					
	(i) Between Groups	6.061636	8	0.757704	57.3855*	2.18E-38
	(ii) Within Groups	1.663673	126	0.013204		
20	**OCLCLR**					
	(i) Between Groups	4.731055	8	0.591382	33.4181*	1.05E-27
	(ii) Within Groups	2.229752	126	0.017696		
Liquidity Ratios						
21	**CR**					
	(i) Between Groups	111.3229	8	13.91536	11.1481*	7.91E-12
	(ii) Within Groups	157.2766	126	1.248227		
22	**QR**					
	(i) Between Groups	112.92	8	14.11501	11.2055*	6.98E-12
	(ii) Within Groups	158.7155	126	1.259647		
23	**ALR**					
	(i) Between Groups	6.777612	8	0.847202	2.5536**	0.013
	(ii) Within Groups	41.80234	126	0.331765		
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	**TATR**					
	(i) Between Groups	7.579763	8	0.94747	11.6985*	2.39E-12
	(ii) Within Groups	10.20483	126	0.080991		
25	**CATR**					
	(i) Between Groups	16.89848	8	2.11231	8.4805*	3.51E-09
	(ii) Within Groups	31.38377	126	0.249078		
26	**WCTR**					
	(i) Between Groups	1791.377	8	22.39221	1.6943	0.101
	(ii) Within Groups	16652.84	126	132.1654		
27	**RTR**					
	(i) Between Groups	259.7065	8	32.46331	5.8548*	2.33E-06
	(ii) Within Groups	698.6379	126	5.544745		
28	**ACP**					
	(i) Between Groups	316748.3	8	39593.53	6.1199*	1.18E-06
	(ii) Within Groups	815168.8	126	6469.593		

TABLE 6.13 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
	CBTR					
29	(i) Between Groups	21222.25	8	2652.781	5.1100*	1.6E-05
	(ii) Within Groups	65411.08	126	519.1355		
	CTR					
30	(i) Between Groups	14123.57	8	1765.446	8.7707*	1.76E-09
	(ii) Within Groups	25362.36	126	201.2886		
	APP					
31	(i) Between Groups	51790.44	8	6473.805	7.5495*	3.32E-08
	(ii) Within Groups	108047.1	126	857.5169		
Profitability Ratios						
	OPM					
32	(i) Between Groups	13565.78	8	1695.722	6.0632*	1.37E-06
	(ii) Within Groups	35238.98	126	279.6744		
	NPM					
33	(i) Between Groups	8888.639	8	1111.08	4.5068*	7.76E-05
	(ii) Within Groups	31063.11	126	246.5327		
	ROTA					
34	(i) Between Groups	1447.916	8	180.9895	2.1102**	0.039
	(ii) Within Groups	10807.03	126	85.77008		
	EAT/TA					
35	(i) Between Groups	1359.549	8	169.9437	2.4531**	0.017
	(ii) Within Groups	13571.92	126	38.77693		
	RONW					
36	(i) Between Groups	3490.14	8	436.267	0.1930	0.995
	(ii) Within Groups	284839	126	2260.62		

*** Indicating significant results at 1% level of significance with Critical Value of F = 2.655**

**** Indicating significant results at 5% level of significance with Critical Value of F = 2.013**

❋ As already discussed in Chapter 5, due to the formula of WCL, observations for 2 years is lost and so the analysis is possible for only 14 years. Since, CANFAR is taken to support the analysis of WCL; its analysis is also for 14 years. The same is applicable for between the years analysis of variances.

$ Many of the companies had NIL inventory in atleast 1 year of the study period and hence it was not possible to examine the variances in ITR, IHP and resultantly variances in OC and NTC. This is applicable to variances between the years for these industries.

Significant variations observed for WCL indicates that there exists significant difference between the companies of Miscellaneous Services Industry with respect to investment in current assets and the degree of Working Capital Leverage and are in line with the variations observed for CATAR and CANFAR. Hence, the null hypothesis that there are no significant variations between companies with respect to the mean WCL is rejected.

B. Current Asset Structure Ratios

As observed from Table 6.13, the results of ANOVA also provide significant evidence that mean of the Current Asset Structure Ratios widely vary indicating that the companies in Miscellaneous Services Industry maintain different mix of current asset

components. Highest variations are observed for ITCAR indicating that companies significantly differ in terms of proportion of maintaining level of inventories as a proportion of current assets. This is followed by LATCAR, RTCAR, MSTCAR, PERCAR and CBBTCAR.

C. Current Liabilities Structure Ratios

The results of ANOVA for Current Liabilities Structure Ratios provide significant evidence that their means vary widely indicating that companies of Miscellaneous Services Industry maintain different mix of current liabilities as a source of financing the current assets. Highest variation is observed for CFCCLR indicating that amongst all the components of Current Liabilities, the companies differ greatly in using current financing charge as a source of financing the current assets. This is followed by OCLCLR, PCLR, DACECLR, TCCLR and STBBCLR.

D. Liquidity Ratios

From the perusal of Table 6.13, it is observed that mean of all the Liquidity ratios widely vary, thereby indicating that there exists significant difference between the companies of Miscellaneous Services Industry regarding liquidity management. Highest variation is observed for QR indicating that companies differ significantly in terms of maintaining short term liquidity as measured in terms of proportion of quick assets to current liabilities. This is followed by CR and ALR.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

From the perusal of Table 6.13, it is observed that means of all the CAME Ratios except WCTR and Operating Cycle Variables vary widely between the companies of Miscellaneous Services Industry.

- Amongst the CAME Ratios, highest variation is observed for TATR indicating that the companies of Miscellaneous Services Industry pursue different approaches in managing their total assets and they vary in terms of asset utilization. This result is in line with the highest variation observed for CATAR, which also may be the reason for such high variation in TATR.
- Significant variations in CATR and CBTR indicate that companies of Miscellaneous Services Industry differ greatly in terms of current asset and cash management efficiency. However, no significant variation in WCTR indicates that the firms of Miscellaneous Service industry follow similar approach in utilization of net working capital for operating sales.

- ◈ Significant variations in RTR, ACP, CTR and APP indicate that firms in Miscellaneous Services Industry pursue different credit and collection policy and manage their receivables and payables distinctively.

F. Profitability Ratios

The results of ANOVA for Profitability Ratios (except RONW) provide significant evidence that their means vary widely between the companies thereby indicating that the profitability position of companies in Miscellaneous Services Industry is significantly different. Highest variation is observed for OPM indicating that the companies differ greatly with respect to their operational efficiency measured as percentage of sales and that the companies in Miscellaneous Services Industry manage their operations differently as also evidenced by the results of WCP, Current Asset Investment, Current Liabilities Structure and Liquidity Ratios.

While analyzing the variances between companies of the Miscellaneous Services Industry over a period of 15 years, it was observed that significant variances existed for 34 out of 36 ratios, of which 31 ratios were found to be significant at 1% level of significance and 3 ratios, *i.e.,* ALR, ROTA and EAT/TA at 5% level of significance. Significant variance was not observed only for RONW and WCTR. Highest variance was observed for the CFCCLR. Hence, the null hypothesis that no significant variations exist between companies of Miscellaneous Services Industry for selected parameters of WCM, LEV and Profitability is broadly rejected.

6.3.5.2 Single Factor ANOVA between the years of Miscellaneous Services Industry

The results of single factor ANOVA between the years for 9 companies of Miscellaneous Services Industry for all the parameters of WCM, LEV and PROF is presented in Table 6.14. *While analyzing the variance between the years* for all the selected parameters, out of the 36 ratios, significant variations were observed for only 6 ratios *viz,* STBBCLR, ALR, OPM, NPM, ROTA and EAT/TA at 1% level of significance whereas for the remaining 30 ratios no significant variations were observed. These results indicate that there have been changes in the proportion of Short Term Bank Borrowings to Current Liabilities, which is also a source of current asset financing in the Miscellaneous Services Industry over the study period.

The significant variations observed for ALR indicates that over the study period there have been changes in the absolute liquidity position of the Miscellaneous Services Industry.

The significant variations in all the profitability ratios indicate that Miscellaneous Services industry is unable to maintain its profitability consistently and operational efficiency measured in terms of both sales and total assets over the study period. In addition, highest variation between the years is observed for EAT/TA.

Thus, it can be concluded that there were no significant variations in the means of selected ratios of WCP, LEV, CA Structure, CL Structure (except STBBCLR), Liquidity (except ALR), CAME as well as OC Variables over the study period.

Hence, the null hypothesis that there exists no significant variation between years for selected parameters of WCM and LEV is broadly accepted whereas for Profitability ratios, it is rejected.

TABLE 6.14

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Working Capital Policy, Working Capital Leverage & Leverage Ratios						
1	**LTDTAR**					
	(i) Between Groups	0.133901	14	0.009564	0.4033	0.972
	(ii) Within Groups	2.845818	120	0.023715		
2	**TDTAR**					
	(i) Between Groups	0.202209	14	0.014444	0.1914	0.999
	(ii) Within Groups	9.057138	120	0.075476		
3	**CLTAR**					
	(i) Between Groups	0.282028	14	0.020145	0.3338	0.988
	(ii) Within Groups	7.241407	120	0.060345		
4	**CATAR**					
	(i) Between Groups	0.308886	14	0.022063	0.5876	0.870
	(ii) Within Groups	4.505796	120	0.037548		
5	**CLCAR**					
	(i) Between Groups	3.936573	14	0.281184	0.6663	0.803
	(ii) Within Groups	50.63852	120	0.421988		
6	**NWCCAR**					
	(i) Between Groups	3.936573	14	0.281184	0.6663	0.803
	(ii) Within Groups	50.63852	120	0.421988		
7	**CANFAR***	**[Critical Value of F = 2.293 (1%) and 1.809 (5%)]**				
	(i) Between Groups	6.55609	13	0.50431	0.6298	0.825
	(ii) Within Groups	89.692	112	0.80082		
8	**WCL***	**[Critical Value of F = 2.293 (1%) and 1.809 (5%)]**				
	(i) Between Groups	0.692621	13	0.053279	1.2087	0.282
	(ii) Within Groups	4.937075	112	0.044081		
Current Asset Structure Ratios						
9	**ITCAR**					
	(i) Between Groups	0.240507	14	0.017179	0.7210	0.750
	(ii) Within Groups	2.859146	120	0.023826		

TABLE 6.14 (Continued..)

SINGLE FACTOR ANOVA BETWEEN THE YEARS OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)

Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
10	RTCAR					
	(i) Between Groups	1.018614	14	0.072758	1.6231	0.082
	(ii) Within Groups	5.379259	120	0.044827		
11	CBBTCAR					
	(i) Between Groups	0.103575	14	0.007398	0.4205	0.966
	(ii) Within Groups	2.111239	120	0.017594		
12	PETCAR					
	(i) Between Groups	0.101999	14	0.007286	1.7043	0.063
	(ii) Within Groups	0.513002	120	0.004275		
13	LATCAR					
	(i) Between Groups	0.257225	14	0.018373	0.8441	0.620
	(ii) Within Groups	2.611915	120	0.021766		
14	MSTCAR					
	(i) Between Groups	0.55516	14	0.039654	1.6739	0.069
	(ii) Within Groups	2.842702	120	0.023689		
Current Liabilities Structure Ratios						
15	TCCLR					
	(i) Between Groups	0.624587	14	0.044613	1.0144	0.444
	(ii) Within Groups	5.277562	120	0.04398		
16	DACECLR					
	(i) Between Groups	0.642361	14	0.045883	1.2862	0.225781
	(ii) Within Groups	4.281065	120	0.035676		
17	PCLR					
	(i) Between Groups	0.08938	14	0.006384	0.2156	0.998
	(ii) Within Groups	3.55303	120	0.029609		
18	STBBCLR					
	(i) Between Groups	1.101658	14	0.07869	2.4123*	0.005
	(ii) Within Groups	3.914386	120	0.03262		
19	CFCCLR					
	(i) Between Groups	0.206944	14	0.014782	0.2359	0.998
	(ii) Within Groups	7.518364	120	0.062653		
20	OCLCLR					
	(i) Between Groups	0.186047	14	0.013289	0.2354	0.998
	(ii) Within Groups	6.77476	120	0.056456		
Liquidity Ratios						
21	CR					
	(i) Between Groups	7.982373	14	0.570169	0.2625	0.997
	(ii) Within Groups	260.6171	120	2.171809		
22	QR					
	(i) Between Groups	7.637598	14	0.545543	0.2480	0.997
	(ii) Within Groups	263.998	120	2.199983		
23	ALR					
	(i) Between Groups	12.53725	14	0.895518	2.9815*	0.001
	(ii) Within Groups	36.0427	120	0.300356		

TABLE 6.14 (Continued..)						
SINGLE FACTOR ANOVA BETWEEN THE YEARS OF MISCELLANEOUS SERVICES INDUSTRY (9 COMPANIES)						
Sr. No.	Category & Name of Ratio	SS	df	MS	F-Value	p-Value
Current Asset Management Efficiency Ratios and Operating Cycle Variables						
24	TATR					
	(i) Between Groups	1.005217	14	0.071801	0.5135	0.921
	(ii) Within Groups	16.77938	120	0.139828		
25	CATR					
	(i) Between Groups	4.037345	14	0.288382	0.7821	0.687
	(ii) Within Groups	44.24491	120	0.368708		
26	WCTR					
	(i) Between Groups	2394.347	14	171.0248	1.2787	0.230
	(ii) Within Groups	16.77938	120	1.139828		
27	RTR					
	(i) Between Groups	139.8692	14	9.990661	1.4648	0.135
	(ii) Within Groups	818.4752	120	6.820626		
28	ACP					
	(i) Between Groups	153378.7	14	10955.62	1.3435	0.192
	(ii) Within Groups	978538.3	120	8154.486		
29	CBTR					
	(i) Between Groups	3376.232	14	241.1594	0.3476	0.986
	(ii) Within Groups	83257.09	120	693.8091		
30	CTR					
	(i) Between Groups	4196.238	14	299.7313	1.0192	0.439
	(ii) Within Groups	35289.69	120	294.0807		
31	APP					
	(i) Between Groups	21669.7	14	1547.836	1.3443	0.192
	(ii) Within Groups	138167.9	120	1151.399		
Profitability Ratios						
32	OPM					
	(i) Between Groups	10668.06	14	762.0043	2.3977*	0.006
	(ii) Within Groups	38136.7	120	317.8058		
33	NPM					
	(i) Between Groups	10691.91	14	763.7081	3.1321*	0.000
	(ii) Within Groups	29259.84	120	243.832		
34	ROTA					
	(i) Between Groups	3895.186	14	278.2276	3.9938*	1.27E-05
	(ii) Within Groups	8359.76	120	69.66466		
35	EAT/TA					
	(i) Between Groups	3264.106	14	233.1504	4.0998*	8.4E-06
	(ii) Within Groups	6824.329	120	56.86941		
36	RONW					
	(i) Between Groups	22267.2	14	1590.51	0.7174	0.754
	(ii) Within Groups	266062	120	2217.18		
* Indicating significant results at 1% level of significance with Critical Value of F = 2.234						

6.3.6 Summary of Results of Single Factor ANOVA

In order to have a comparative analysis of the results of ANOVA for all the industries simultaneously, a summary of the results of Single Factor ANOVA between the companies of and between the years for the Non Financial Service Industry as well as its constituent industry groups is prepared. The summary of Single Factor ANOVA for between the companies is presented and discussed first followed by the summary of Single Factor ANOVA between the years.

6.3.6.1 Summary of Results of Single Factor ANOVA between the Companies of the Non Financial Service Industry and its Constituent Industry Groups

In order to get a glimpse of the results of ANOVA for all the industries together a summary of F Values with the indicators of level of significance based on results of ANOVA between the companies for Service Industry taken in entirety and for individual service industry groups, *i.e.,* Hotels and Restaurant, IT$_{ea}$, Transport Services, Health Services and Miscellaneous Services is prepared and presented in Table 6.15. The following major observations can be made from the Table 6.15:

Significant variations between the companies are found for all the 36 ratios for the *Transport Services Industry.* In case of *Hotels and Restaurant Industry*, except RONW all the 35 ratios are found to vary significantly between companies. For Miscellaneous *Services Industry*, except WCTR and RONW all the 34 ratios are found to vary significantly between companies. For *Non Financial Service Industry* taken in entirety, except WCTR, CTR, APP and RONW all the 32 ratios are observed to vary significantly between companies. Similar finding is for the Health Services Industry. However, in case of *Health Services Industry* 36 ratios are observed to vary significantly between companies as ITR, IHP, OC and NTC are also included. *For IT$_{ea}$ Industry*, except 5 ratios, *viz*, WCTR, CTR, ACP, APP and RONW the remaining 31 parameters are observed to vary significantly between companies.

A. Working Capital Policy, Working Capital Leverage and Leverage Ratios

From Table 6.15, it can be observed that for all the WCP and LEV ratios *viz*, CLTAR, LTDTAR, TDTAR, CATAR, CLCAR, NWCCAR as well as WCL significant variances is observed at 1% level of significance between companies for all the industries. Variations are found to be highest in this group for CATAR in all industries except, IT$_{ea}$ Industry where it is highest for CLTAR.

TABLE 6.15

SUMMARY OF SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF ALL THE INDUSTRIES

Sr. No.	Category & Name of Ratio	Name of the Service Industry					
		Service (All 79 Co.s)	Hotels (25 Co.s)	ITes (20 Co.s)	Transport (16 Co.s)	Health (7 Co.s)	Misc Services (9 Co.s)
Working Capital Policy and Leverage Ratios							
1	LTDTAR	36.8901*	66.9076*	16.5977*	33.3153*	14.1936*	14.6972*
2	TDTAR	27.207*	39.1454*	23.8671*	25.9660*	8.6789*	37.9165*
3	CLTAR	31.4681*	37.2743*	30.6148*	30.2986*	3.1175*	34.9795*
4	CATAR	72.2017*	98.7355*	20.3222*	65.4301*	21.9618*	44.2977*
5	CLCAR	18.2832*	16.7325*	20.8008*	12.2706*	19.1566*	17.8607*
6	NWCCAR	18.3873*	16.7325*	20.6952*	12.2706*	19.1566*	17.8607*
7	CANFAR	34.0358*	28.8144*	19.7367*	56.6012*	11.8195*	30.8420*
8	WCL	43.0184*	61.0173*	15.6069*	41.9507*	18.4930*	23.7665*
Current Asset Structure Ratios							
9	ITCAR	24.8835*	51.8298*	5.7958*	19.9718*	23.5299*	31.0287*
10	RTCAR	20.6241*	28.3546*	16.5026*	25.1073*	7.68995*	13.7722*
11	CBBTCAR	18.8488*	22.1096*	11.9082*	23.6447*	24.9872*	3.8594*
12	PETCAR	17.1545*	11.2503*	33.1487*	11.8378*	16.2835*	6.4424*
13	LATCAR	11.7247*	21.4590*	6.3773*	4.8514*	9.0428*	18.2110*
14	MSTCAR	12.5065*	29.8296*	6.9432*	9.1363*	50.7759*	7.8172*
Current Liabilities Structure Ratios							
15	TCCLR	17.2319*	29.9024*	11.8361*	26.8469*	4.1494*	12.9442*
16	DACECLR	16.0526*	24.6895*	12.1302*	10.2409*	2.8341**	16.2922*
17	PCLR	18.8343*	24.7998*	9.2105*	40.6596*	18.5207*	16.3414*
18	STBBCLR	12.0260*	10.8226*	7.3463*	17.4379*	12.7937*	7.8825*
19	CFCCLR	24.9701*	24.1657*	7.0113*	25.5683*	5.7376*	57.3855*
20	OCLCLR	20.7480*	16.3363*	13.5233*	45.6027*	40.6500*	33.4181*
Liquidity Ratios							
21	CR	14.1777*	11.3906*	12.7886*	19.7592*	6.3192*	11.1481*
22	QR	13.5152*	11.7951*	13.2168*	12.4917*	4.9296*	11.2055*
23	ALR	9.5313*	9.4404*	13.2028*	9.5752*	3.6762*	2.5536**
Current Asset Management Efficiency Ratios and Operating Cycle Variables							
24	TATR	37.8818*	83.4982*	17.8247*	50.8033*	8.5947*	11.6985*
25	CATR	46.0708*	65.1524*	14.5729*	14.2878*	29.5757*	8.4805*
26	WCTR	NS	2.0836*	NS	1.9890**	NS	NS
27	ITR	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	17.8063*	NC$^{\$}$
28	IHP	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	10.2278*	NC$^{\$}$
29	RTR	29.3846*	29.3846*	18.8094*	18.9173*	29.3846*	5.8548*
30	ACP	1.4554*	12.2382*	NS	12.3398*	6.9505*	6.1199*
31	CBTR	16.1916*	17.9480*	6.8688*	13.6788*	27.5115*	5.1100*
32	CTR	NS	24.1040*	NS	20.8113*	NS	8.7707*
33	APP	NS	23.6302*	NS	8.2664*	NS	7.5495*
34	OC	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	6.8616*	NC$^{\$}$
35	NTC	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	NC$^{\$}$	8.6688*	NC$^{\$}$

TABLE 6.15 (Continued...)							
SUMMARY OF SINGLE FACTOR ANOVA BETWEEN THE COMPANIES OF ALL THE INDUSTRIES							
Sr. No.	Category & Name of Ratio	Name of the Service Industry					
		Service (All 79 Co.s)	Hotels (25 Co.s)	ITes (20 Co.s)	Transport (16 Co.s)	Health (7 Co.s)	Misc Services (9 Co.s)
Profitability Ratios							
36	OPM	16.5202*	47.3211*	4.769*	11.5423*	3.1097*	6.0632*
37	NPM	10.3058*	18.8773*	6.1464*	7.4177*	3.8799*	4.5068*
38	ROTA	8.6238*	14.3802*	8.1521*	19.8814*	3.8247*	2.1102**
39	EAT/TA	10.8472*	12.3341*	8.7846*	15.2434*	2.9582**	2.4531**
40	RONW	NS	NS	NS	9.0257*	NS	NS

* Indicating significant results at 1% level of significance
** Indicating significant results at 5% level of significance
NS indicate results being NOT SIGNIFICANT.
NC[$] refers to NOT COMPUTED. Some of the companies have NIL inventory in some years and hence it was not possible to examine the variances in ITR and IHP and resultantly variances in OC and NTC could not be examined for between the companies as well as between the years. Hence, for the 5 industries, 4 ratios *viz*, ITR, IHP, OC and NTC are excluded from analysis. Therefore, it could not be taken for the Non Financial Service Industry, *i.e.*, 79 companies taken as a whole.

B. Current Asset Structure Ratios

All the CA Structure ratios *viz*, ITCAR, RTCAR, CBBTCAR, PETCAR, LATCAR and MSTCAR are found to vary significantly between companies of all the five industries. Highest variance in this group is observed for ITCAR in Hotels and Restaurant and Miscellaneous Services Industry which is also observed for Non Financial Service Industry, *i.e.*, when all 79 companies are taken. In ITeS Industry, highest variance between the companies is observed for PETCAR. In Transport Services Industry, it is observed for RTCAR and in Health Services Industry it is observed for MSTCAR.

C. Current Liabilities Structure Ratios

All the Current Liabilities Structure Ratios *viz*, TCCLR, DACECLR, PCLR, STBBCLR, CFCCLR and OCLCLR are found to vary significantly between companies of all the industries. Highest variance in this group is observed for TCCLR in Hotels and Restaurant Industry; for OCLCLR in ITeS, Transport Services and Health Services Industry whereas in Miscellaneous Services Industry highest variance is observed for CFCCLR, which is also the case when Service Industry is taken in entirety.

D. Liquidity Ratios

All the Liquidity ratios *viz*, CR, QR and ALR are found to vary significantly between companies of all the industries. Highest variance in this group is observed for QR in Hotels and Restaurant, ITeS and Miscellaneous Services Industry whereas it is highest for CR in Transport Services and Health Services Industry, which is also the case when Service Industry is taken in entirety.

E. Current Asset Management Efficiency Ratios and Operating Cycle Variables

All CAME Ratios are observed to vary significantly in case of Hotels and Restaurant Industry as well as Transport Services Industry. In case of Miscellaneous Services Industry except WCTR, all other Current Asset Management Efficiency Ratios vary significantly between companies. In IT$_{eA}$ Industry except WCTR, ACP, CTR and APP whereas in case of Health Services Industry, except, WCTR, CTR, and APP all ratios are found to vary significantly between the companies.

Highest variance in this group is observed for TATR in Hotels and Restaurant, Transport Services and Miscellaneous Services Industry. In case of Health Services Industry, highest variance is observed for CATR, which is also the case when Service Industry is taken in entirety.

All the Operating Cycle Variables vary significantly between companies for all the industries except IT$_{eA}$ Industry, Health Services Industry as well as Service Industry taken as whole (all 79 companies). No variations are observed for IT$_{eA}$ Industry for all the OC Variables. Significant variations are observed for all OC Variables between companies of remaining industries except CTR and APP for Health Services Industry.

Highest variance in this group is observed for APP in Hotels and Restaurant Industry as well as Miscellaneous Services Industry; for IHP in Health Services Industry whereas it is observed to be for ACP in Transport Services Industry as well as Service Industry taken as a whole (all 79 companies).

F. Profitability Ratios

All five profitability ratios are observed to vary significantly only for Transport Services Industry. All profitability ratios except RONW are observed to vary significantly between companies of all industries.

Highest variance is observed for EAT/TA in case of IT$_{eA}$ Industry; for ROTA in Transport Services Industry; for NPM in Health Services Industry and for OPM in Hotels and Restaurant Industry as well as Miscellaneous Services Industry, which is also the case when Service Industry is taken in entirety.

From the above, it can be concluded that of the selected 40 ratios, for 33 ratios *viz,* all the LEV, WCP, CA Structure, CL Structure ratios; CAME ratios (except WCTR, ACP, CTR and APP) and PROF ratios (except RONW) significant variances between companies are observed for all the 5 industries. are Highest variance among all the ratios is observed for CATAR in Hotels and Restaurant Industry as well as Transport Services Industry, which is also the case when Service Industry is taken in entirety. It is observed to be highest for PETCAR in case of IT$_{eA}$ Industry, for MSTCAR in case of

Health Services Industry, for TCCLR in case of Communication Services Industry and for CFCCLR in case of Miscellaneous Services Industry.

6.3.6.2 Summary of Results of Single Factor ANOVA between the Years of the Non Financial Service Industry and its Constituent Industry Groups

In order to get a glimpse of the results of ANOVA for all the industries together, a summary of F Values is prepared with indicators of level of significance. This is done based on results of ANOVA between the years for Non Financial Service Industry taken in entirety and for individual service industry groups, *i.e.*, Hotels and Restaurant, IT$_{e4}$, Transport Services, Health Services and Miscellaneous Services Industry. This summary is presented in Table 6.16. The following observations can be made from Table 6.16:

Non Financial Service Industry (79 Companies)

While analyzing the variances between the years for the Service Industry, it is found that of the 36 ratios, significant variations were observed for only 9 ratios *viz*, ITCAR, RTCAR, PETCAR, MSTCAR, DACELCR, OPM, NPM, ROTA and EAT/TA. Thus, for remaining 27 ratios no significant variations are observed between years over the selected time frame.

Hotels and Restaurant Industry (25 Companies)

While analyzing the variances between the years for the Hotels and Restaurant Industry, it was found that of the 36 ratios, significant variations were observed for only 3 ratios *viz*, PETCAR, ROTA and EAT/TA. Thus, for remaining 33 ratios no significant variations are observed between years over the selected time frame.

IT$_{e4}$ Industry (20 Companies)

While analyzing the variances between the years for the IT$_{e4}$ Industry, it is found that of the 36 ratios, significant variations were observed for only 8 ratios *viz*, ITCAR, DACELCR, MSTCAR, RTCAR, PETCAR, LATCAR, CR and QR. Thus, for remaining 28 ratios no significant variations are observed between years over the selected time frame.

Transport Services Industry (16 Companies)

While analyzing the variances between the years for the Transport Services Industry, it is found that of the 36 ratios, significant variations are observed for only 2 ratios *viz*, ALR and CBBTCAR. Thus, for remaining 34 ratios no significant variations were observed between years over the selected time frame.

TABLE 6.16

SUMMARY OF SINGLE FACTOR ANOVA BETWEEN THE YEARS FOR ALL THE INDUSTRIES

Sr. No.	Category & Name of Ratio	Name of the Service Industry					
		Service (All 79 Co.s)	Hotels (25 Co.s)	IT (20 Co.s)	Transport (16 Co.s)	Health (7 Co.s)	Misc. Services (9 Co.s)
Working Capital Policy and Leverage Ratios							
1	LTDTAR	NS	NS	NS	NS	NS	NS
2	TDTAR	NS	NS	NS	NS	2.0142**	NS
3	CLTAR	NS	NS	NS	NS	2.3771*	NS
4	CATAR	NS	NS	NS	NS	NS	NS
5	CLCAR	NS	NS	NS	NS	NS	NS
6	NWCCAR	NS	NS	NS	NS	NS	NS
7	CANFAR	NS	NS	NS	NS	NS	NS
8	WCL	NS	NS	NS	NS	NS	NS
Current Asset Structure Ratios							
9	ITCAR	1.8647**	NS	3.3784*	NS	NS	NS
10	RTCAR	4.5198*	NS	1.8791**	NS	NS	NS
11	CBBTCAR	NS	NS	NS	1.8108**	NS	NS
12	PETCAR	4.4902*	2.8770*	1.9528**	NS	NS	NS
13	LATCAR	NS	NS	1.9166**	NS	NS	NS
14	MSTCAR	5.1759*	NS	3.2482*	NS	NS	NS
Current Liabilities Structure Ratios							
15	TCCLR	NS	NS	NS	NS	NS	NS
16	DACECLR	2.6425*	NS	2.7438*	NS	NS	NS
17	PCLR	NS	NS	NS	NS	NS	NS
18	STBBCLR	NS	NS	NS	NS	NS	2.4123*
19	CFCCLR	NS	NS	NS	NS	NS	NS
20	OCLCLR	NS	NS	NS	NS	NS	NS
Liquidity Ratios							
21	CR	NS	NS	1.9678**	NS	NS	NS
22	QR	NS	NS	1.7915**	NS	NS	NS
23	ALR	NS	NS	NS	2.2718*	1.8308**	2.9815*
Current Asset Management Efficiency Ratios and Operating Cycle Variables							
24	TATR	NS	NS	NS	NS	NS	NS
25	CATR	NS	NS	NS	NS	NS	NS
26	WCTR	NS	NS	NS	NS	NS	NS
27	ITR	NC$	NC$	NC$	NC$	NS	NC$
28	IHP	NC$	NC$	NC$	NC$	NS	NC$
29	RTR	NS	NS	NS	NS	NS	NS
30	ACP	NS	NS	NS	NS	NS	NS
31	CBTR	NS	NS	NS	NS	NS	NS
32	CTR	NS	NS	NS	NS	NS	NS
33	APP	NS	NS	NS	NS	NS	NS
34	OC	NC$	NC$	NC$	NC$	NS	NC$
35	NTC	NC$	NC$	NC$	NC$	NS	NC$

TABLE 6.16 (Continued...)

SUMMARY OF SINGLE FACTOR ANOVA BETWEEN THE YEARS FOR ALL THE INDUSTRIES

Sr. No.	Category & Name of Ratio	Name of the Service Industry					
		Service (All 79 Co.s)	Hotels (25 Co.s)	IT$_{\&A}$ (20 Co.s)	Transport (16 Co.s)	Health (7 Co.s)	Misc. Services (9 Co.s)
Profitability Ratios							
36	OPM	2.7427*	NS	NS	NS	NS	2.3977*
37	NPM	2.9113*	NS	NS	NS	NS	3.1321*
38	ROTA	3.8286*	6.3822*	NS	NS	NS	3.9938*
39	EAT/TA	3.9233*	5.8846*	NS	NS	NS	4.0998*
40	RONW	NS	NS	NS	NS	NS	NS

* Significant results at 1% level of significance ** Significant results at 5% level of significance

NS indicate results being NOT SIGNIFICANT.

NC$^{\$}$ refers to NOT COMPUTED. Some of the companies have NIL inventory in some years and hence it was not possible to examine the variances in ITR and IHP and resultantly variances in OC and NTC for between the companies as well as between the years. Hence, for the 4 industries, 4 ratios *viz*, ITR, IHP, OC and NTC are excluded from analysis. Therefore, it could not be taken for the Non Financial Service Industry, *i.e.*, 79 companies taken as a whole.

Miscellaneous Services Industry (9 Companies)

While analyzing the variances between the years, it was found that of the 36 ratios, significant variations were observed for only 6 ratios *viz*, STBBCLR, ALR, OPM, NPM, ROTA and EAT/TA. Thus, for remaining 30 ratios no significant variations were observed between the years.

Further, from Table 6.16 it can be concluded that of the 40 ratios, in 22 ratios no significant variances is observed between the years for any industry. In addition, it is observed that in all the industries, for majority ratios no significant variance is observed between the years indicating that on the whole the selected variables have remained stable over a period of time.

CONCLUSIONS

This chapter examined the variances, if any, for the selected 40 parameters of WCM (*including ratios related to Working Capital Policy, Current Asset Structure, Current Liabilities Structure, Liquidity, Current Asset Management Efficiency and Measures of Operating Cycle as well as Working Capital Leverage),* LEV and PROF between the industries as also between the years taking all the industries; between the companies for a given industry and between the years for a given industry and together. The conclusions derived based on the said analysis are presented in the following paragraphs. The conclusions are divided into three sections wherein, the *first section* gives conclusions for ANOVA between the selected non financial service industries the *second section* gives conclusions for ANOVA between companies for a given industry;

whereas the *third section* gives conclusions for ANOVA between years for the selected industries as well as between the years taking all the industries together.

I Analysis of Variances Between Non Financial Service Industries as well as Between Years for all Industries

- It is concluded that significant difference exists between the Non Financial Service Industry groups relating to utilization of debt financing as well as aggressive/conservative working capital investment and financing policies. The industries also vary with respect to the degree of Working Capital Leverage. Moreover, the structure of current assets maintained by them (except MSTCAR) and mix of current liabilities (except TCCLR and OCLCLR) as a source of financing the current assets also differ significantly.
- It is concluded that the selected industries in Service Sector significantly differ in their approach towards liquidity management, asset utilization efficiency, policies for management of inventory, cash and receivables. However, they pursue similar approach for managing payables and net working capital.
- It is concluded that the selected Non Financial Service Industries of India significantly differ in terms of their profit earning ability and manage their operations differently.
- It is concluded that the policies pursued by the 6 Non Financial Service Industry groups for managing working capital have remained consistent over the study period excepting those related to receivables and investment in marketable securities.

II Analysis of Variances Between Companies

A. Non Financial Service Industry (All 79 companies)

- It is concluded that there exists significant difference between the companies of Non Financial Service Industry with respect to use of long term as well as total debt financing. The firms of Non Financial Service Industry differ greatly in the current asset investment policy pursued by them. They also differ in use of current liabilities and net working capital for financing their current assets. Their approach with respect to the aggressiveness and/or conservativeness of working capital investment and financial policies also differ. Further, it is concluded that the companies of Non Financial Service Industry significantly vary with respect to degree of Working Capital Leverage.
- It is concluded that there exists significant difference between the companies of Non Financial Service Industry with respect to current asset structure and the mix of current liabilities as a source of financing the current assets.

- The companies differ significantly in liquidity management, management of current assets and total assets utilization efficiency and cash management efficiency. They pursue different credit and collection policy. However for managing payables and net working capital, their approach is similar.
- It is concluded the companies of Non Financial Service Industry differ in terms of their profitability position and operational efficiency.

B. Between companies based on Industry wise classification

- It is concluded that there exists significant difference between the companies when each industry is taken individually, *i.e.,* of Hotels and Restaurant Industry, IT&A Industry, Transport Services Industry, Health Services Industry and Miscellaneous Services Industry with respect to use of debt financing and working capital policy. Further companies belonging to Hotels and Restaurant Industry, Transport Services Industry and Health Services Industry differ greatly in their approach with respect to use of long term debt to finance the total assets as compared to the total debt position. However, in case of IT&A and Miscellaneous Services Industry differences between firms are greater with respect to the total debt position as compared to use of long term debt to finance the total assets. It is concluded that firms of Hotels and Restaurant Industry, IT&A Industry, Transport Services Industry and Miscellaneous Services Industry differ greatly in the current asset investment policy pursued by them as well as use of current liabilities and net working capital for financing their current assets
- It is also concluded that there were significant variations in level of current asset investment and thereby degree of Working Capital Leverage between the companies of all industries, *viz,* Hotels and Restaurant Industry, IT&A Industry, Transport Services Industry, Health Services Industry and Miscellaneous Services Industry.
- It is concluded that there exists significant difference between the companies of all the 5 Non Financial Service Industry groups with respect to the structure of current assets maintained by them. Also, they maintain different mix of current liabilities as a source of financing the current assets
- It is concluded that firms of all the five Non Financial Service Industry groups differ with respect to liquidity management, management of current assets and total assets utilization efficiency. It is concluded that firms in Hotels and Restaurant and Transport Services Industry pursue different credit and collection policy and follow different approaches in managing their payables. However, firms in IT&A Industry

follow similar approach for managing their payables. Further, firms in Miscellaneous Services Industry pursue different credit and collection policy but uniform approach/policy for managing their payables.

- It is concluded that firms in Hotels and Restaurant Industry, IT&A Industry, Transport Services Industry, Health Services Industry and Miscellaneous Services Industry manage their cash distinctively.
- It is concluded that firms in Hotels and Restaurant and Transport Services Industry manage net working capital distinctively. However, firms in IT&A; Miscellaneous Services and Health Services Industry follow similar approach in managing their net working capital.
- It is concluded the companies of all the 6 Non Financial Services Industry groups differ in terms of their profitability position and operational efficiency.

III Analysis of Variances Between Years

A. Non Financial Service Industry

It is concluded that that there have been changes in the composition of CA structure of Non Financial Service Industry over the study period which has mainly been caused due to changes in receivables, inventories, prepaid expenses and marketable securities of which highest variation is for MSTCAR. In addition, DACE as a proportion to CL have varied over the study period. Further, there have been significant changes in the profitability and operational efficiency of firms over the study period. Further for remaining 27 ratios no significant variations between the years are observed.

B. Hotels and Restaurant Industry

It is concluded that Hotels and Restaurant industry is unable to maintain its profitability consistently and operational efficiency (except ROTA and EAT/TA) over the study period. Also PETCAR has varied over the study period. However the remaining 33 ratios have not shown significant variations over the study period.

C. IT&A Industry

It is concluded that there were no significant variations in the means of selected parameters of WCP, LEV, CL Structure except DACECLR, Profitability, CAME Ratios and Operating Cycle Variables over the study period. However, variations are observed for CA Structure Ratios except CBBTCAR and Liquidity ratios except ALR.

D. Transport Services Industry

It is concluded that there have been significant changes in CBBTCAR in the Transport Services Industry over the study period which has affected the liquidity ratio ALR. For remaining 34 ratios no significant variations are observed between years.

E. Health Services Industry

It is concluded that there have been significant changes in CLTAR as a source of total asset financing in the Health Services Industry over the study period, which has lead to significant variations in total debt position as represented by TDTAR. Significant changes are also observed in ALR. For the remaining 37 ratios no significant variations is observed.

F. Miscellaneous Services Industry

It is concluded that there have been significant changes in STBBCLR as a source of current asset financing in the Miscellaneous Services Industry over the study period. Also variations are observed in ALR of the study period. Further, the industry was unable to maintain its profitability (except RONW) consistently. In the remaining 30 ratios no significant variations were observed.

Having examined the differences between companies, between industries and between years, the next chapter moves to the last, *i.e.*, ***third stage of analysis*** and empirically examines the impact of Sales on Working Capital; Impact of Working Capital Leverage on ROTA and Impact of Firm Size, Leverage, Working Capital Policy, Liquidity and Current Assets Management Efficiency on Profitability Measures of the Non Financial Service Industry.

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