Chapter Four: Impact of Current Assets Management Practices of Select Companies of Printing Industry on Performance

---

Introduction

This research endeavour intends to comprehend the significance and leverage of cost management with special reference to management of current assets and its impact on profitability. After gauging the management of current asset practices adapted by the different companies in the Printing industry in Chapter Three, this chapter expounds the impact of management of current assets on profitability.

This part of the study is divided into various subsections: the first part analyses performance of select companies, second part analyses the impact of management of current assets practices on profitability, third part analyses efficiency of cost management and the final part discusses the relationship and impact of Current assets management practices on performance of the companies.

Part 1 Analysis of performance of select companies

This section analyses the performance of select companies in terms of Operating profit margin (OPM), Return on working capital (ROWC), and Return on total assets (ROTA).

OPERATING PROFIT RATIO

It helps to analyse the performance of business and throws light on the operational efficiency of the business. Higher operating profit ratio is a very healthy sign. A company's operating profit margin ratio shows how well the company's operations contribute to its profitability. A company with a high operating profit margin ratio makes more money on each rupee of sales than a company with a narrow operating profit margin.

It is computed with the help of the following formula:

Operating profit ratio = operating profit / sales * 100

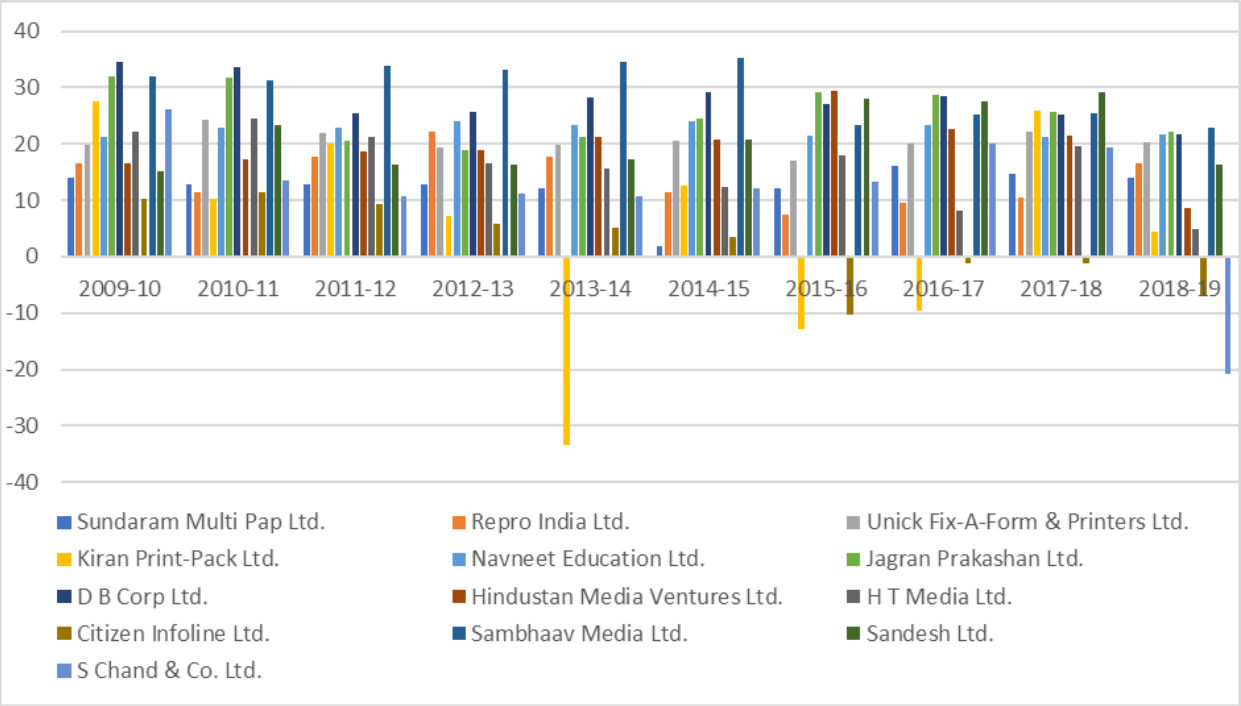
TABLE 4.1

OPERATING PROFIT MARGIN

Name of the company	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	MAX	MIN	AVG OF FIRST 5 YEARS	AVG OF LATEST 5 YEARS	AVG.
Sundaram Multi Pap Ltd.	14	13	13	13	12	2	12	16	15	14	16	2	13	12	12
Repro India Ltd.	17	11	18	22	18	12	8	10	11	17	22	8	17	11	14
Unick Fix-A-Form & Printers Ltd.	20	24	22	19	20	21	17	20	22	20	24	17	21	20	20
Kiran Print-Pack Ltd.	27	10	20	7	-33	13	-13	-10	26	4	27	-33	6	4	5
Navneet Education Ltd.	21	23	23	24	23	24	22	23	21	22	24	21	23	22	23
Jagran Prakashan Ltd.	32	32	21	19	21	25	29	29	26	22	32	19	25	26	25
D B Corp Ltd.	35	34	26	26	28	29	27	29	25	22	35	22	30	26	28
Hindustan Media Ventures Ltd.	17	17	19	19	21	21	29	23	22	9	29	9	19	21	20
H T Media Ltd.	22	25	21	17	16	12	18	8	20	5	25	5	20	13	16
Sambhaav Media Ltd.	32	31	34	33	34	35	23	25	25	23	35	23	33	26	30
Sandesh Ltd.	15	23	16	16	17	21	28	27	29	16	29	15	18	24	21
S Chand & Co. Ltd.	26	13	11	11	11	12	13	20	19	-21	26	-21	14	9	12
Average of Averages															19

GRAPH 4.1

OPERATING PROFIT MARGIN



SUNDARAM MULTI PAP LTD :

Table 4.1 reflects that Operating profit margin of Sundaram Multi Pap Ltd during the period under study was highest (16.1 %) in the year 2016-17 and lowest (1.9 %) in the year 2014-15. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 12.34% which is less than the industry average, due to high average operating expense ratio of 88% which is more than industry average. Standard deviation 3.87 with Coefficient of variation 31.38% reveals low variation in the average operating profit ratio of the company during the period under study.

REPRO INDIA LTD.

Table 4.1 reflects that Operating profit margin of Repro India Ltd during the period under study was highest (17.7 %) in the year 2011-12 and lowest (7.5 %) in the year 2014-15. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 14.08% which is

less than the industry average, due to high average operating expense ratio of 86% which is more than industry average. Standard deviation 4.64 with Coefficient of variation 32.93% reveals low variation in the average operating profit ratio of the company during the period under study.

UNICK FIX-A-FORM & PRINTERS LTD :

Table 4.1 reflects that Operating profit margin of Unick Fix-A-Form & Printers Ltd during the period under study was highest (24.3%) in the year 2010-11 and lowest (16.9%) in the year 2015-16. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 20.49% which is higher than the industry average, due to low average operating expense ratio of 81% which is just equivalent to industry average. Standard deviation 1.96 with Coefficient of variation 9.58% reveals low variation in the average operating profit ratio of the company during the period under study.

KIRAN PRINTER-PACK LTD

Table 4.1 reflects that Operating profit margin of Kiran Print-Pack Ltd during the period under study was highest (27.4%) in the year 2009-10 and lowest (-33.3%) in the year 2013-14. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19.

The average operating profit ratio of the company was 5.22% which is much lower than the industry average, due to high average operating expense ratio of 95% which is more than industry average. Standard deviation 18.99 with Coefficient of variation 363.88% reveals high variation in the average operating profit ratio of the company during the period under study.

NAVNEET EDUCATION LTD

Table 4.1 reflects that Operating profit margin of Navneet education Ltd during the period under study was highest (24%) in the year 2012-13 and lowest (21.3%) in the year 2017-18. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to

2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19.

The average operating profit ratio of the company was 22.6% which is higher than the industry average, due to low average operating expense ratio of 77% which is less than industry average. Standard deviation 1.09 with Coefficient of variation 4.84% reveals low variation in the average operating profit ratio of the company during the period under study.

JAGRAN PRAKASHAN LTD

Table 4.1 reflects that Operating profit margin of Jagran Prakashan Ltd during the period under study was highest (32 %) in the year 2009-10 and lowest (18.8 %) in the year 2012-13. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 25.41% which is more than the industry average, due to low average operating expense ratio of 75% which is more than industry average. Standard deviation 4.75 with Coefficient of variation 18.68% reveals low variation in the average operating profit ratio of the company during the period under study.

D B CORP LTD

Table 4.1 reflects that Operating profit margin of D B Corp Ltd during the period under study was highest (16.1 %) in the year 2016-17 and lowest (1.9 %) in the year 2014-15. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 12.34% which is less than the industry average, due to high average operating expense ratio of 88% which is more than industry average. Standard deviation 3.87 with Coefficient of variation 31.38% reveals low variation in the average operating profit ratio of the company during the period under study.

HINDUSTAN MEDIA VENTURE LTD

Table 4.1 reflects that Operating profit margin of Hindustan Media Ventures Ltd during the period under study was highest (29.3%) in the year 2015-16 and lowest (8.6 %) in the year 2018-19. The average operating profit ratio of the company for the first 5 years i.e. from

2009-10 to 2013-14 is less than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 19.53% which is more than the industry average, due to high average operating expense ratio of 80% which is more than industry average. Standard deviation 5.24 with Coefficient of variation 26.85% reveals low variation in the average operating profit ratio of the company during the period under study.

H T MEDIA LTD

Table 4.1 reflects that Operating profit margin of H T Media Ltd during the period under study was highest (24.5%) in the year 2010-11 and lowest (4.8 %) in the year 2018-19. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 16.3% which is less than the industry average, due to high average operating expense ratio of 84% which is more than industry average. Standard deviation 6.27 with Coefficient of variation 38.48% reveals low variation in the average operating profit ratio of the company during the period under study.

SAMBHAAV MEDIA LTD

Table 4.1 reflects that Operating profit margin of Sambhaav Media Ltd during the period under study was highest (35.1%) in the year 2014-15 and lowest (22.8 %) in the year 2018-19. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 29.62% which is more than the industry average, due to low average operating expense ratio of 70% which is more than industry average. Standard deviation 4.91 with Coefficient of variation 16.57% reveals low variation in the average operating profit ratio of the company during the period under study.

SANDESH LTD

Table 4.1 reflects that Operating profit margin of Sandesh Ltd during the period under study was highest (29.2%) in the year 2017-18 and lowest (15.2%) in the year 2009-10. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-

14 is less than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 21.01% which is more than the industry average, due to high average operating expense ratio of 79% which is more than industry average. Standard deviation 4.91 with Coefficient of variation 26.26% reveals low variation in the average operating profit ratio of the company during the period under study.

S CHAND & CO. LTD

Table 4.1 reflects that Operating profit margin of Sundaram Multi Pap Ltd during the period under study was highest (26%) in the year 2009-10 and lowest (-20.7 %) in the year 2018-19. The average operating profit ratio of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average operating profit of the company for the latest five years i.e. from 2014-15 to 2018-19. The average operating profit ratio of the company was 11.58% which is less than the industry average, due to high average operating expense ratio of 88% which is more than industry average. Standard deviation 12.42 with Coefficient of variation 107.27% reveals high variation in the average operating profit ratio of the company during the period under study.

TABLE 4.1 revealed average Operating profit ratio of all the companies of printing industry taken under the study is 18.84%. Out of the 12 companies selected under the study, average operating profit ratio is highest (35.1%) in case of Sambhaav Media Ltd and least (-33.3 %) in case of Kiran Print-Pack Ltd. The standard deviation of average operating profit ratio is highest (18.99) in case of Kiran Print-Pack Ltd and least (1.09) in case of Navneet Education Ltd. The coefficient of variation was highest (363.88%) in case of Kiran Print-Pack Ltd and least (4.84%) in case of Navneet Education Ltd. This reveals that the average operating profit ratio of Kiran Print-Pack Ltd shows greater variability and average operating profit ratio of Navneet Education Ltd shows least variation.

It is also found that Average operating profit ratio of first five years i.e. from 2009-10 to 2013-14 of 09 companies is higher than average operating profit ratio of latest five years i.e. from 2014-15 to 2018-19. These companies are Sundaram Multi Pap Ltd, Repro India Ltd, Unick Fix-A-Form Ltd, Kiran Print-Pack Ltd, Navneet Education Ltd, D B Corp Ltd, H T Media Ltd, Sambhaav Media Ltd and S Chand & Co Ltd. Rest three companies viz. Jagran Prakashan Ltd, Hindustan Media Ventures Ltd and Sandesh Ltd, have higher average operating profit ratio in latest five years i.e. from 2014-15 to 2018-19 than first fives i.e. from

2009-10 to 2013-14. These is due to high average operating expenses in the latest five years i.e. from 2014-15 to 2018-19 than first five years i.e. from 2009-10 to 2013-14.

Test of Significance:

To test the significance of the operating profit ratio of the select 12 companies under present study, F test is applied and following hypothesis has been tested.

Null Hypothesis (Ho) : There is no significant difference in the operating profit ratio of the 12 companies of Printing industry selected for the study.

Alternative Hypothesis (H1) : There is a significant difference in the operating profit ratio of the 12 companies of Printing industry selected for the study.

TABLE 4.2

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	5732.545	11	521.1404	8.739154	6.49E-11	1.878388
Within Groups	6440.345	108	59.63282			
Total	12172.89	119				

From above table for 11 and 108 degree of freedom, it is found that F_{cal} is 8.739154 and F_{tab} is 1.878388 at 5 % Level of Significance.

Thus, $F_{cal} > F_{tab}$ and p-value is less than specified α of 0.05.

So, Null hypothesis (H0) is rejected and it is concluded that there is significant difference in Operating profit Ratio between 12 selected companies of Printing Industry.

Return on Working Capital :

A significant part of the capital of the business is invested in various kinds of current assets viz, account receivables, inventory, cash and cash equivalents which necessitates to anticipate and understand how well a business manages these current assets for generating revenue. Return on working capital ratio reveals working capital performance, in other words, the return on working capital ratio measures how efficiently a company manages its working capital to generate profits. Return on working capital is calculated by dividing the difference of Operating profit after tax and charges for fixed assets by amount of Gross working capital. The amount of operating profit as well as amount of tax have been taken from the published annual reports of the respective company. The operating profit after tax is calculated for all the 12 companies considered for the study and for the period of study as presented in the following table 4.3.:

TABLE 4.3

OPERATING PROFIT AFTER TAX (Rs. In lakhs)

Name of the company	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**MIN**	**MAX**	**AVG OF FIRST 5 YEARS**	**AVG OF LATEST 5 YEARS**	**AVERAGE**
Sundaram Multi Pap Ltd.	18.7	20.0	20.3	20.8	18.6	2.0	13.5	14.3	15.4	10.5	2.0	20.8	19.7	11.1	15.4
Repro India Ltd.	34.5	34.3	61.8	81.4	65.9	39.1	24.1	30.1	26.1	47.1	24.1	81.4	55.6	33.3	44.4
Unick Fix-A-Form & Printers Ltd.	1.5	2.2	2.1	2.2	2.4	3.1	3.2	4.3	5.0	5.1	1.5	5.1	2.1	4.1	3.1
Kiran Print-Pack Ltd.	-0.2	0.4	0.2	0.1	0.6	0.1	-0.3	-0.1	-0.1	0.1	-0.3	0.6	0.2	-0.1	0.1
Navneet Education Ltd.	76.1	85.2	100	138	144	166	134	168	161	202	76.1	202	108.7	166.4	137.5
Jagran Prakashan Ltd.	218	257	179	250	238	281	381	394	352	310	179	394	228.3	343.8	286.1
D B Corp Ltd.	246	324	269	289	381	410	386	445	419	394	246	445	302	410.9	356.3
Hindustan Media Ventures Ltd.	20	67	85	91	112	125	181	145	132	43	20	181	75	125	100
H T Media Ltd.	229	228	223	236	185	135	204	108	218	89.3	89	236	220.2	151.0	185.6
Sambhaav Media Ltd.	9.6	10.6	10.3	10.2	10.9	8.7	4.9	6.8	8.5	8.8	4.9	10.9	10.3	7.5	8.9
Sandesh Ltd.	20.0	29.9	17.2	18.9	24.8	35.3	51.7	53.7	63.0	29.9	17.2	63.0	22.1	46.7	34.4
S Chand & Co. Ltd.	22.7	15.5	13.3	16.4	18.3	24.3	27.8	42.0	38.0	-20	-20	42.0	17.2	22.5	19.9
AVERAGES OF INDUSTRY															99.32

Charges on Fixed Assets :

The charge on Fixed Assets is calculated by multiplying rate of weighted average cost of capital, which is calculated with the help of PROWESS IQ data base, with the amount of fixed assets presented at the published balance sheet of the company which is presented in the following table :

TABLE 4.4 CHARGES ON FIXED ASSETS (Rs. In lakhs)

Name of the company	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	MIN	MAX	AVERAGE OF FIRST 5 YEARS	AVERAGE OF LATEST 5 YEARS	AVERAGE
Sundaram Multi Pap Ltd.	8.9	10.3	14.8	15.3	20.4	15.3	14.0	13.9	12.9	10.6	8.9	20.4	13.9	13.3	13.6
Repro India Ltd.	7.5	4.8	7.7	11.5	17.0	10.9	13.9	21.2	15.6	17.0	4.8	21.2	9.7	15.7	12.7
Unick Fix-A-Form & Printers Ltd.	2.0	1.4	1.2	2.4	2.2	2.0	2.2	2.3	2.4	1.9	1.2	2.4	1.8	2.2	2.0
Kiran Print-Pack Ltd.	0.04	0.02	0.02	0.01	0.07	0.03	0.03	0.03	0.04	0.06	0.01	0.07	0.03	0.03	0.03
Navneet Education Ltd.	2.6	0.5	12.3	13.0	11.0	9.6	7.8	10.3	13.3	22.3	0.5	22.3	7.9	12.7	10.3
Jagran Prakashan Ltd.	19	45	63	103	94	94	121	115	125	132	19	132	65	117	91
D B Corp Ltd.	42	47	36	37	28	31	55	85	226	415	28	415	38	162	100
Hindustan Media Ventures Ltd.	5	9	20	80	104	88	37	116	89	166	5	166	44	99	71
H T Media Ltd.	40	62	88	50	87	97	128	195	171	187	40	195	65	156	110
Citizen Infoline Ltd.	0.4	0.9	0.5	1.0	0.7	1.0	0.7	0.5	0.6	0.9	0.4	1.0	0.7	0.7	0.7
Sambhaav Media Ltd.	3	5	7	6	7	7	6	12	16	15	3	16	6	11	8
Sandesh Ltd.	16	31	28	21	36	44	62	47	129	422	16	422	26	141	84
S Chand & Co. Ltd.	1	7	3	16	22	71	59	48	48	81	1	81	10	61	36
AVERAGE OF INDUSTRY															41.52

Return on working capital :

Return on working capital is calculated by dividing the difference of Operating profit after tax and charges for fixed assets by amount of Gross working capital as reflected by the following formula :

$$ROWC = \frac{(OPAT - \text{charges on FA})}{GWC} \times 100$$

Where,

ROWC = Return on working capital,

OPAT = Operating Profit After Tax

GWC = Gross working capital

The rate of Return on working capital is calculated as above for each company for the time period considered for the study which are presented in the following Table :

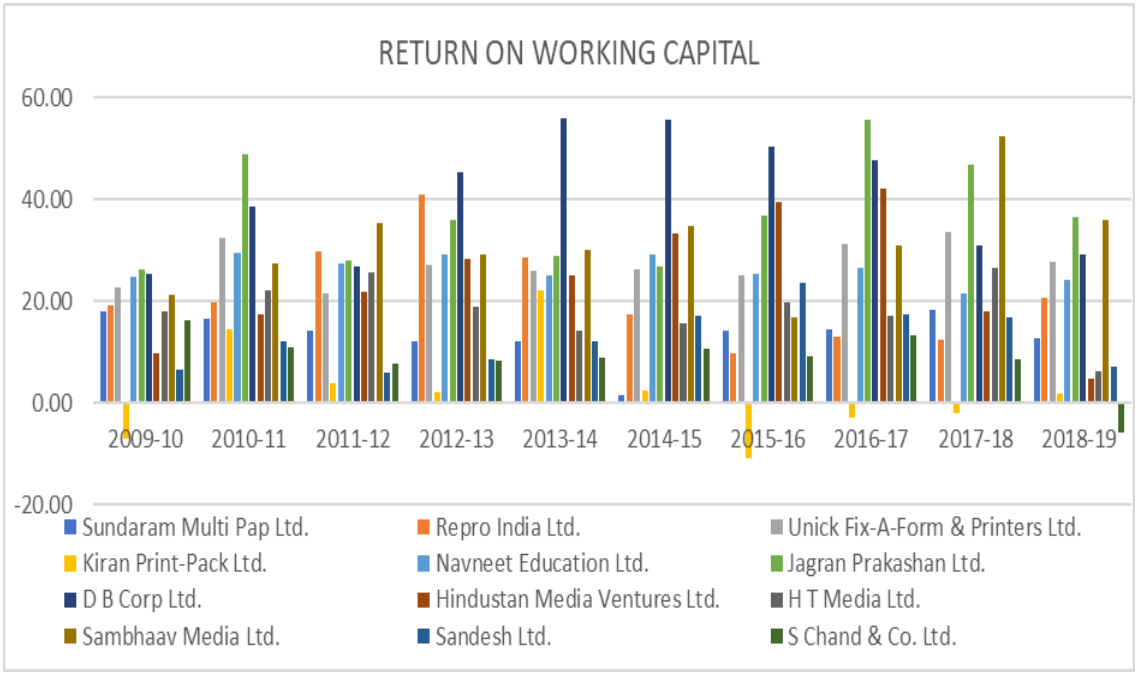
TABLE 4.5

RETURN ON WORKING CAPITAL

Name of the company	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	MIN	MAX	Avg of First 5 years	Avg of Latest 5 years	SD	CV	AVG
Sundaram Multi Pap Ltd.	18	17	14	12	12	2	14	15	18	13	2	18	15	12	5	35	14
Repro India Ltd.	19	20	30	41	29	17	10	13	13	21	10	41	28	15	10	45	21
Unick Fix-A-Form & Printers Ltd.	23	32	22	27	26	26	25	31	34	28	22	34	26	29	4	14	27
Kiran Print-Pack Ltd.	-7	15	4	2	22	3	-11	-3	-2	2	-11	22	7	-2	10	382	3
Navneet Education Ltd.	7	12	6	9	12	17	24	17	17	7	6	24	9	16	6	45	13
Jagran Prakashan Ltd.	26	49	28	36	29	27	37	56	47	37	26	56	34	41	10	28	37
D B Corp Ltd.	25	39	27	46	56	56	51	48	31	29	25	56	39	43	12	29	41
Hindustan Media Ventures Ltd.	10	17	22	28	25	33	40	42	18	5	5	42	21	28	12	50	24
H T Media Ltd.	18	22	26	19	14	16	20	17	26	6	6	26	20	17	6	32	18
Sambhaav Media Ltd.	21	28	35	29	30	35	17	31	52	36	17	52	29	34	10	31	31
Sandesh Ltd.	25	29	27	29	25	29	25	27	22	24	22	29	27	25	3	10	26
S Chand & Co. Ltd.	16	11	8	8	9	11	9	13	9	-6	-6	16	11	7	6	65	9
AVERAGE OF INDUSTRY																	22

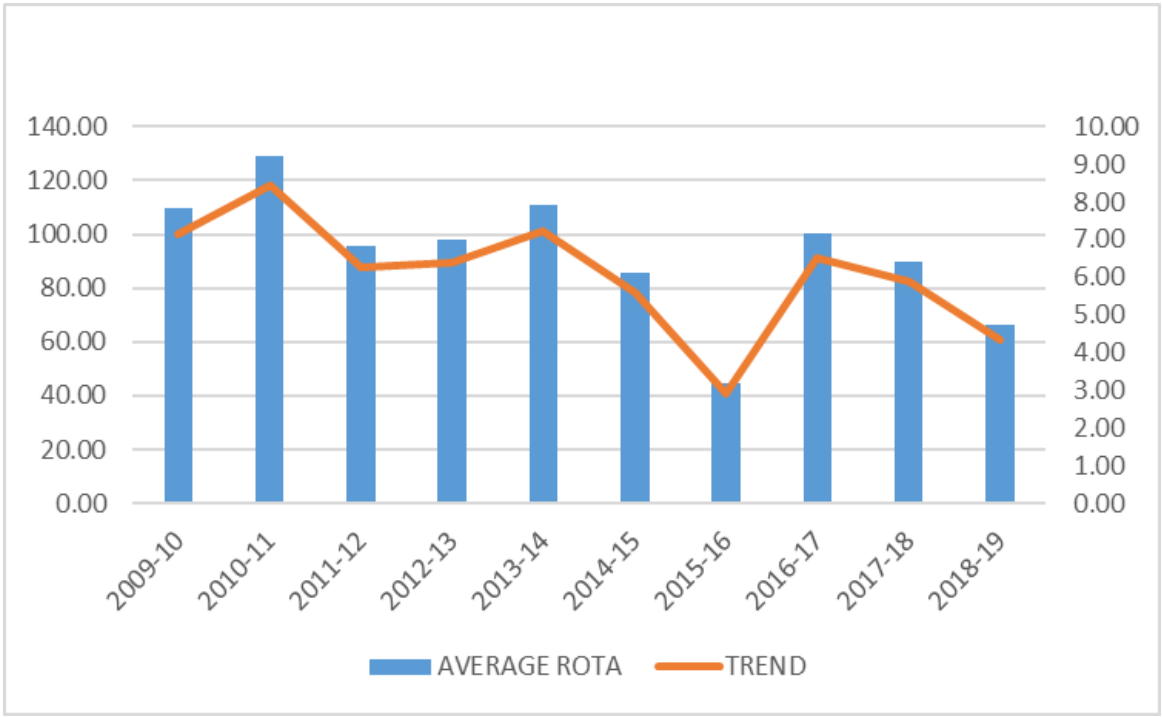
GRAPH 4.2

RETURN ON WORKING CAPITAL



GRAPH 4.3

TREND OF RETURN ON WORKING CAPITAL



SUNDARAM MULTI PAP LTD :

As shown in the above table, return on working capital was 18.04% in the year 2009-10 which is increased to Rs.16.67% in the year 2010-11. After that, it shown an increasing trend till 2014-15. In the year 2015-16, it increased to 14.37%. Since then it shown an increasing trend since 2017-18 when it reached to 18.28%. In the year 2018-19 it decreased to 12.83%. which is less than the average of averages of the companies of printing industry selected under study. It was highest in the year 2017-18 (18.28%) and lowest in the year 2014-15 (1.63%). Standard deviation 4.72 with Coefficient of variation 34.92% reveals low variation in the average Return on working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on working capital of the company was 13.51% which is less than the industry average which shows inefficiency in utilisation of working capital for generating revenue.

REPRO INDIA LTD

As shown in the above table, return on working capital was 19.17% in the year 2009-10 which is increased to Rs.19.73% in the year 2010-11. After that, it shown an increasing trend till 2012-13. After that it shown it shown increasing trend since 2012-13 when it reached to 41.09%. From 2013-14 it shown decreasing trend since 2015-16 when it reached to 9.84%. In the year 2016-17, it increased to 12.59%. In the year 2018-19 it increased to 20.57% which is just equal to average of averages of the companies of printing industry selected under study. It was highest in the year 2012-13 (41.09%) and lowest in the year 2015-16 (9.84%). Standard deviation 9.52 with Coefficient of variation 44.89% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is than the average Return on working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on working capital of the company was 21.20% which is slightly lower than the industry average which shows efficiency in utilisation of working capital for generating revenue.

UNICK FIX-A-FORM & PRINTERS LTD

As shown in the above table, return on working capital was 22.87 % in the year 2009-10 which is increased to 32.45 % in the year 2010-11. In 2011-12 it decreased to 21.67 %. It

shown volatile trend till 2015-16 when it was 25.10 %. After that, it shown an increasing trend till 2017-18. In the year 2018-19 it decreased to 27.87 % which is more than the average of averages of the companies of printing industry selected under study. It was highest in the year 2017-18 (33.66 %) and lowest in the year 2011-12 (21.67 %). Standard deviation 3.96 with Coefficient of variation 14.43% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 27.44% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

KIRAN PRINT-PACK LTD

As shown in the above table, return on working capital was -6.82% in the year 2009-10 which is increased to 14.62% in the year 2010-11. After that, it shown an decreasing trend till 2012-13. In the year 2013-14, it increased to 22.31 %. Since then it shown an decreasing trend since 2017-18 when it reached to negative -2.01 %. In the year 2018-19 it increased to 1.89 % which is very much less than the average of averages of the companies of printing industry selected under study. It was highest in the year 2013-14 (22.31%) and lowest in the year 2016-17 (-10.69%). Standard deviation 9.72 with Coefficient of variation 381.85% reveals high variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 2.55% which is much lower than the industry average which shows inefficiency in utilisation of working capital for generating revenue.

NAVNEET EDUCATION LTD

As shown in the above table, return on working capital was 24.85% in the year 2009-10 which is increased to 29.44 % in the year 2010-11. In the year 2011-12 it got decreased to 27.37 %. Since then it shown volatile trend till 2017-18 when it reached to 21.61 %. In the year 2018-19, it increased to 24.20 % which is higher than the average of averages of the companies of printing industry selected under study. It was highest in the year 2010-11

(29.44 %) and lowest in the year 2017-18 (21.61 %). Standard deviation 2.56 with Coefficient of variation 9.71% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 26.34% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

JAGRAN PRAKASHAN LTD

As shown in the above table, return on working capital was 26.37 % in the year 2009-10 which is increased to 48.94 % in the year 2010-11. After that, it shown an decreasing trend in 2011-12. In the year 2012-13, it increased to 35.99 %. Since then it shown a decreasing trend for couple of years and reached to 26.84 % in 2014-15. In 2015-16, it got increased and reached to 36.78 % which further increased to 55.72 % in the year 2016-17. Since then it showed decreasing trend till 2018-19. In the year 2018-19, it decreased to 36.55 % which is more than the average of averages of the companies of printing industry selected under study. It was highest in the year 2016-17 (55.72 %) and lowest in the year 2009-10 (26.37 %). Standard deviation 10.29 with Coefficient of variation 27.73% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 37.12% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

D B CORP LTD

As shown in the above table, return on working capital was 25.45 % in the year 2009-10 which is increased to Rs.36.67 % in the year 2010-11. In the year 2011-12 it got decreased to 26.86 %. It shown increasing trend for next couple of years and reached to 56.08 % in the year 2013-14. After that, it shown an decreasing trend till 2018-19. In the year 2018-19 it decreased to 29.17 % which is more than the average of averages of the companies of printing industry selected under study. It was highest in the year 2013-14 (56.08 %) and

lowest in the year 2009-10 (25.45 %). Standard deviation 11.98 with Coefficient of variation 29.46% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 40.67% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

HINDUSTAN MEDIA VENTURES LTD

As shown in the above table, return on working capital was 9.94 % in the year 2009-10. Since then it showed increasing trend till 2012-13. In 2012-13 it increased to 28.23 %. In 2013-14, it decreased to 25.19 %. Since then it shown increasing trend till 2016-17 when it was 42.25 %. Since then it showed decreasing trend till 2018-19. In the year 2018-19 it decreased to 4.96 % which is less than the average of averages of the companies of printing industry selected under study. It was highest in the year 2016-17 (42.25 %) and lowest in the year 2018-19 (4.96 %). Standard deviation 12.12 with Coefficient of variation 50.31% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 24.09% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

H T MEDIA LTD

As shown in the above table, return on working capital was 17.93 % in the year 2009-10. After that it shown increasing trend for next couple of years and reached to 35.46 % in the year 2011-12. Since then it shown decreasing trend till 2013-14 when it reached to 14.15 %. Then again for next couple of years it shown increasing trend and reached to 19.72 % in the year 2015-16. In the year 2017-18, it got increased to 26.45 %. In the year 2018-19 it decreased to 6.26 % which is less than the average of averages of the companies of printing industry selected under study. It was highest in the year 2017-18 (26.45 %) and lowest in the year 2018-19 (6.26 %). Standard deviation 5.85 with Coefficient of variation 31.77% reveals

low variation in the average Return on Working capital ratio of the company during the period under study.

The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 18.40% which is less than the industry average which shows efficiency in utilisation of working capital for generating revenue.

SAMBHAAV MEDIA LTD

As shown in the above table, return on working capital was 21.21 % in the year 2009-10. There after, it showed increasing trend til2014-15 when it reached to 34.91 %. In the year 2011-12 when it was 35.46 %. In the year 2012-13, it got decreased to 29.32 %. Since then it showed increasing trend for next couple of years till 2014-15 when it reached to 34.91 %. In the year 2015-16, it decreased to 16.80 %. Since then it shown increasing trend for next couple of years and reached to 52.41 % in the year 2017-18. In the year 2018-19 it decreased to 36.07 % which is higher than the average of averages of the companies of printing industry selected under study.

It was highest in the year 2017-18 (52.41 %) and lowest in the year 2015-16 (16.80 %). Standard deviation 9.61 with Coefficient of variation 30.53% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 31.47% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

SANDESH LTD

As shown in the above table, return on working capital was 6.67 % in the year 2009-10 which is increased to 12.22 % in the year 2010-11. In the year 2011-12, it got decreased to 6.11 %. After that, it shown an increasing trend till 2015-16. In the year 2015-16, it increased to 23.57

%. Since then it shown decreasing trend since 2018-19 when it decreased to 7.24 % which is less than the average of averages of the companies of printing industry selected under study.

It was highest in the year 2015-16 (23.57 %) and lowest in the year 2011-12 (6.11 %). Standard deviation 5.80 with Coefficient of variation 45.41% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 12.78% which is less than the industry average which shows efficiency in utilisation of working capital for generating revenue.

S CHAND & CO LTD

As shown in the above table, return on working capital was 16.41 % in the year 2009-10. After that it shown decreasing trend till 2013-14 when it reached to 8.87 %. In the year 2014-15, it got increased to 10.70 % which got decreased to 9.34 % in the year 2015-16. In 2015-16, it showed volatile trend and fall to 9.34 %. In the year 2015-16, it increased to 13.27 %. Since then it showed decreasing trend till 2018-19. In the year 2018-19 it decreased to (negative) -5.76 % % which is very much lower than the average of averages of the companies of printing industry selected under study. It was highest in the year 2009-10 (16.41 %) and lowest in the year 2018-19 (-5.76 %). Standard deviation 5.77 with Coefficient of variation 65.08% reveals low variation in the average Return on Working capital ratio of the company during the period under study. The average Return on working capital of the company for the first 5 years i.e. from 2009-10 to 2013-14 is than the average Return on Working capital of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Working capital of the company was 8.87% which is more than the industry average which shows efficiency in utilisation of working capital for generating revenue.

TABLE 4.5 revealed average return on working capital ratio of all the companies of printing industry taken under the study is 21.04%. Out of the 12 companies selected under the study, average return on working capital ratio is highest (40.66%) in case of D B Corp Ltd and least (2.55 %) in case of Kiran Print-Pack Ltd. The standard deviation of average return on working capital ratio is highest (12.12) in case of Hindustan Media Ventures Ltd and least (2.56) in case of Navneet Education Ltd. The coefficient of variation was highest (381.858%)

in case of Kiran Print-Pack Ltd and least (9.71%) in case of Navneet Education Ltd. This reveals that the average return on working capital ratio of Kiran Print-Pack Ltd shows greater variability and average return on working capital ratio of Navneet Education Ltd shows least variation.

As shown in the above table, out of 12 companies of printing industry selected under study, 7 companies' first 5 years' average return on working capital is more than average for latest 5 years. These companies are Sundarm Multi Pap Ltd, Repro India Ltd, Unick Fix-A-Form & Printers Ltd, Kiran Print-Pack Ltd, Navneet Education Ltd, H T Media Ltd, S Chand & Co Ltd. Rest 5 companies' latest 5 years average return on working capital ratio is more than average return on working capital ratio of first 5 years. These companies are Jagran Prakashan Ltd, D B Corp Ltd, Hindustan Media Ventures Ltd, Sambhaav Media Ltd and Sandesh Ltd. Out of 12 companies of printing industry selected under study, 7 companies' i.e. Repro India Ltd, Unick Fix-A-Form & Printers Ltd, Navneet Education Ltd, Jagran Prakashan Ltd, D B Corp Ltd, Hindustan Media Ventures Ltd and Sambhaav Media Ltd. Rest 5 companies, viz., Sundaram Multi Pap Ltd, Kiran Print-Pack Ltd, H T Media Ltd, Sandesh Ltd and S Chand & Co Ltd, has average return on working capital ratio is less than the industry average. The highest average return on working capital ratio is 40.66% of D B Corp Ltd and lowest is 2.55% of Kiran Print Pack Ltd.

ANOVA : SINGLE FACTOR FOR RETURN ON TOTAL WORKING CAPITAL RATIO

H0 : NULL HYPOTHESIS : There is no significant difference in Return on total working capital ratio between 13 selected printing companies.

H1: ALTERNATIVE HYPOTHESIS: There is significant difference in in Return on total working capital Ratio between 13 selected printing companies.

Level of Significance: 5%

TABLE 4.6

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	14409.46	11	1309.951	19.18652	9.56E-21	1.878388
Within Groups	7373.65	108	68.27454			
Total	21783.11	119				

Degree of freedom = 120-1= 119

Table Value of 'F' = 1.878388

Calculate Value of 'F'= 19.18652

Fcal > Ftab

19.18652 > 1.878388

Table 4.6 indicates the calculate value of 'F' is 19.18652 and the table value of 'F' at 5% levels of significance is 1.878388. The calculate value 'F' which is more than the table value. Thus, Fcal > Ftab and p-value is greater than specified α of 0.05. It indicates that the Null Hypothesis is rejected and Alternate Hypothesis is accepted. So, it indicates that there is significant difference in Return on Assets of selected 12 selected printing companies in printing industry under study for the period.

RETURN ON ASSETS:

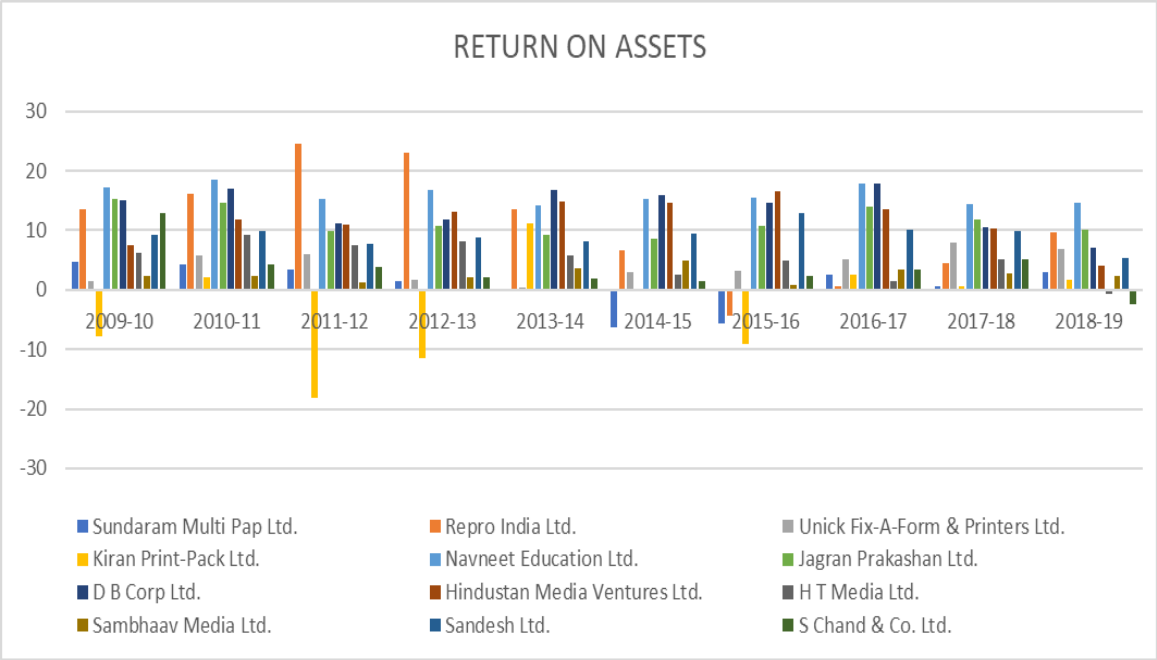
The return on assets ratio is the profitability ratio that measures the returns produced by total assets during a period. In other words, the return on assets ratio measures how efficiently a company utilizes its assets to generate revenue during a period. This ratio helps both management and investors see how well the company can convert its investments in assets into profits. Return on assets is a profitability ratio that provides how much profit a company is able to generate from use of total assets.

TABLE 4.7 RETURN ON ASSETS

Name of the company	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	MIN	MAX	SD	CV	AVERAGE OF FIRST 5 YEARS	AVERAGE OF LATEST 5 YEARS	AVERAGE
Sundaram Multi Pap Ltd.	5	4	3	2	0	-6	-6	3	1	3	-6	5	4	487	3	-1	1
Repro India Ltd.	14	16	25	23	14	7	-4	1	5	10	-4	25	9	86	18	3	11
Unick Fix-A-Form & Printers Ltd.	2	6	6	2	0	3	3	5	8	7	0	8	3	61	3	5	4
Kiran Print-Pack Ltd.	-8	2	-18	-11	11	0	-9	3	1	2	-18	11	9	-298	-5	-1	-3
Navneet Education Ltd.	17	18	15	17	14	15	15	18	14	15	14	18	2	10	16	15	16
Jagran Prakashan Ltd.	15	15	10	11	9	9	11	14	12	10	9	15	2	21	12	11	11
D B Corp Ltd.	15	17	11	12	17	16	15	18	11	7	7	18	4	25	14	13	14
Hindustan Media Ventures Ltd.	7	12	11	13	15	15	17	14	10	4	4	17	4	32	12	12	12
H T Media Ltd.	6	9	7	8	6	3	5	1	5	-1	-1	9	3	62	7	3	5
Sambhaav Media Ltd.	2	2	1	2	4	5	1	3	3	2	1	5	1	47	2	3	3
Sandesh Ltd.	9	10	8	9	8	10	13	10	10	5	5	13	2	21	9	10	9
S Chand & Co. Ltd.	13	4	4	2	2	1	2	3	5	-2	-2	13	4	112	5	2	3
AVERAGES OF INDUSTRY																	7.16

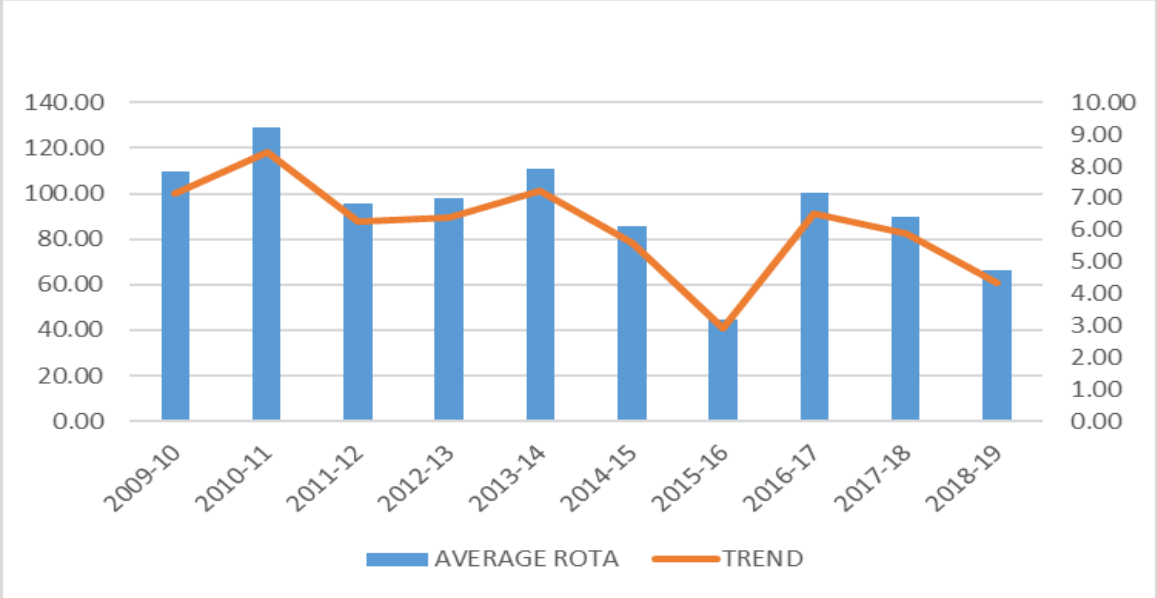
GRAPH 4.4

RETURN ON ASSETS



GRAPH 4.5

TREND OF RETURN ON ASSETS



SUNDARAM MULTI PAP LTD

Table reflects that Return on Assets of Sundaram Multi Pap Ltd during the period under study was highest (4.7%) in the year 2009-10 and lowest (-6.3%) in the year 2014-15. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 0.79% which is less than the industry average. Standard deviation 1.20 with Coefficient of variation 47.03% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 88% which is higher than the industry average at the same time return on working capital is 14% which is less than industry average. Such high operating expenses ratio accompanied by low returns on working capital negatively affect Return on Assets of the company and shows that company is managing its overall Assets inefficiently and ineffectively for generating revenue.

REPRO INDIA LTD

Table reflects that Return on Assets of Repro Ltd during the period under study was highest (24.6%) in the year 2011-12 and lowest (-4.3%) in the year 2015-16. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 10.82% which is more than the industry average. Standard deviation 9.28 with Coefficient of variation 85.78% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 77% which is lower than the industry average at the same time return on working capital 21% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Working capital of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

UNICK FIX-A-FORM LTD

Table reflects that Return on Assets of Unick Fix-A-Form Ltd during the period under study was highest (7.9%) in the year 2017-18 and lowest (0.4%) in the year 2013-14. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Assets of the company for the latest five years i.e. from 2014-15

to 2018-19. The average Return on Assets of the company was 4.13% which is less than the industry average. Standard deviation 2.53 with Coefficient of variation 61.21% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of company is 80% which is slightly less than the industry average at the same time return on working capital 27% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue..

KIRAN PRINT-PACK LTD.

Table reflects that Return on Assets of Kiran Print-Pack Ltd during the period under study was highest (11.1%) in the year 2013-14 and lowest (-14.1%) in the year 2011-12. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was -2.87% which is negative and much lower than the industry average. Standard deviation 8.55 with Coefficient of variation -298.05% reveals high variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 95% which is higher than the industry average at the same time return on working capital is 3% which is much lower than industry average. Such high operating expenses ratio accompanied by low returns on working capital negatively affect Return on Assets of the company and shows that company is managing its overall Assets inefficiently and ineffectively for generating revenue.

NAVNEET EDUCATION LTD.

Table reflects that Return on Assets of Navneet Education Ltd during the period under study was highest (18.4%) in the year 2010-11 and lowest (14.2%) in the year 2013-14. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 15.91% which is more than the industry average. Standard deviation 1.53 with Coefficient of variation 9.62% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 86% which is higher than the industry

average at the same time return on working capital is 26% which is more than industry average. This indicates that in spite of having high operating expenses ratio, company is managing to get good return on working capital due to high return on working capital. This indicates that company is managing its overall Assets efficiently for generating revenue.

JAGARAN PRAKASHAN LTD.

Table reflects that Return on Assets of Jagran Prakashan Ltd during the period under study was highest (15.3%) in the year 2009-10 and lowest (8.6%) in the year 2014-15. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 11.49% which is more than the industry average. Standard deviation 2.36 with Coefficient of variation 20.52% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 75% which is lower than the industry average at the same time returns on working capital 37% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

D B CORP LTD

Table reflects that Return on Assets of D B Corp Ltd during the period under study was highest (17.9%) in the year 2016-17 and lowest (7%) in the year 2018-19. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is more than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 13.75% which is more than the industry average. Standard deviation 3.49 with of variation 25.41% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 72% which is lower than the industry average at the same time return on working capital is 41% which is much higher than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

HINDUSTAN MEDIA VENTURES LTD

Table reflects that Return on Assets of Hindustan Media Ventures Ltd during the period under study was highest (16.5%) in the year 2015-16 and lowest (4.1%) in the year 2018-19. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is slightly less than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 11.72% which is more than the industry average. Standard deviation 3.74 with Coefficient of variation 31.88% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 80% which is lower than the industry average at the same time return on working capital is 24% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

H T MEDIA LTD

Table reflects that Return on Assets of H T Media Ltd during the period under study was highest (16.5%) in the year 2015-16 and lowest (4.1%) in the year 2018-19. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is slightly less than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 11.72% which is more than the industry average. Standard deviation 3.74 with Coefficient of variation 31.88% reveals low variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 80% which is lower than the industry average at the same time return on working capital is 24% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

SAMBHAAV MEDIA LTD

Table reflects that Return on Assets of Ltd during the period under study was highest (4.9%) in the year 2014-15 and lowest (0.7%) in the year 2015-16. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average

Return on Assets of the company was 2.55% which is much lower than the industry average. Standard deviation 1.20 with Coefficient of variation 47.03% reveals variation in the average Return on Assets ratio of the company during the period under study.

Operating expense ratio of the company is 70% which is lower than the industry average at the same time return on working capital is 21% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

SANDESH LTD

Table reflects that Return on Assets of Ltd during the period under study was highest (12.8%) in the year 2015-16 and lowest (5.3%) in the year 2018-19. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 9.14% which is more than the industry average. Standard deviation 1.93 with Coefficient of variation 21.12% reveals variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 79% which is lower than the industry average at the same time return on working capital is 23% which is more than industry average. Such low operating expenses ratio accompanied by high return on working capital positively affect Return on Assets of the company and shows that company is managing its overall Assets efficiently and effectively for generating revenue.

S CHAND & CO. LTD

Table reflects that Return on Assets of Ltd during the period under study was highest (12.8%) in the year 2015-16 and lowest (-2.4%) in the year 2018-19. The average Return on Assets of the company for the first 5 years i.e. from 2009-10 to 2013-14 is less than the average Return on Assets of the company for the latest five years i.e. from 2014-15 to 2018-19. The average Return on Assets of the company was 3.45% which is less than the industry average. Standard deviation 3.87 with Coefficient of variation 112.31% reveals high variation in the average Return on Assets ratio of the company during the period under study. Operating expense ratio of the company is 88% which is higher than the industry average at the same time return on working capital is 12% which is less than industry average. Such high

operating expenses ratio accompanied by low return on working capital negatively affect Return on Assets of the company and shows that company is managing its overall Assets inefficiently and ineffectively for generating revenue.

TABLE 4.7 reveals average Return on Table reflects that Return on Assets ratio of all the companies of printing industry taken under the study is 7.16%. Out of the 12 companies selected under the study, average Return on Total Working capital ratio is highest (15.91%) in case of Navneet Education Ltd and least (- 2.87%) in case of Kiran Print-Pack Ltd. The standard deviation of average Return on Assets ratio is highest (9.28) in case of Repro India Ltd and least (1.20) in case of Sambhaav Media Ltd. The coefficient of variation was highest (487.28%) in case of Sundaram Multipap Ltd and least (-298.05 %) in case of Kiran Print-Pack Ltd. This reveals that the average Return on Assets ratio of Sundaram Multi Pap Ltd shows greater variability and average Return on Assets ratio of Kiran Print-Pack Ltd shows least variation.

Table 4.7 reveals that the Average Return on Working capital ratio of 07 out of 12 selected companies for the first 5 years is more than the average Return on Working capital of the latest 5 years which are Sundaram Multi Pap Ltd, Repro India Ltd, Navneet Education Ltd, Jagran Prakashan Ltd, D B Corp Ltd, H T Media Ltd and S Chand & Co Ltd. Rest 05 companies average Return on Working capital ratio for the latest 5 years are more than the average Return on Working capital Ratio for the first 5 years which are Unick Fix-A-Form & Printers Ltd, Kiran Print-Pack Ltd, Hindustan Media Ventures Ltd, Sambhaav Media Ltd and Sandesh Ltd. ears is more than Average Return on capital employed ratio of latest 5 years.

ANOVA : SINGLE FACTOR FOR RETURN ON TOTAL ASSETS RATIO

H0 : NULL HYPOTHESIS : There is no significant difference in Return on total Assets ratio between 12 selected printing companies.

H1: ALTERNATIVE HYPOTHESIS: There is significant difference in in Return on Assets Ratio between 12 selected printing companies.

Level of Significance: 5%

TABLE 4.8
ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3666.352	11	333.3047	16.36863	1.86E-18	1.878388
Within Groups	2199.14	108	20.36241			
Total	5865.492	119				

Degree of freedom = 120-1= 119

Table Value of 'F' = 1.878

Calculate Value of 'F'= 16.37

Fcal > Ftab

16.37 > 1.878

Table No indicates the calculate value of 'F' is 16.36863 and the table value of 'F' at 5% levels of significance is 1.878388. The calculate value 'F' which is more than the table value. Thus, Fcal > Ftab and p-value is greater than specified α of 0.05. It indicates that the Null Hypothesis is rejected and Alternate Hypothesis is accepted. So, it indicates that there is significant difference in Return on Assets of selected 12 selected printing companies in printing industry under study for the period.

Second part analyses impact of management of current assets practices on performance

In the previous chapter, cash conversion cycle was taken as a parameter to understand current assets management practices in 12 companies of printing industry selected under study. Based on cash conversion cycle, selected 12 companies were divided into two groups : Group one includes companies with average cash conversion cycle (in days) less than the average cash conversion cycle (in days) of the industry, and Group two includes companies with cash conversion cycle (in days) more than the average cash conversion cycle (in days) of the industry. It was observed that all the companies belonging to Group One has average operating expenses (% of sales) less than the average operating expenses (% of sales) of the industry whereas, Group two has average operating expenses (% of sales) more than the average operating expenses (% of sales) of the industry.

A high degree of positive correlation was observed between the cash conversion cycle (in days) and average operating expenses (% of sales).

This section of the research endeavour attempts to analyse impact of current assets management practices on performance (profitability) in terms of operating profit margin, return on working capital, and return on assets of 12 companies of printing industry selected under study. The data related to operating profit ratio, return on working capital and return on assets of all 12 companies of printing industry selected under study is shown in the following table :

TABLE 4.9

SUMMARY OF CASH CONVERSION CYCLE, OPERATING EXPENSE RATIO, OPERATING PROFI TRATIO, RETURN ON WORKING CAPITAL AND RETURN ON ASSETS

Name of the company	Cash Conversion Cycle (in days)	Operating Expenses (% of sales)	Operating Profit Ratio (%)	Return on working capital (%)	Return on Assets (%)
H T Media Ltd.	-50	77	23	20	5
Sambhaav Media Ltd.	31	70	30	21	3
Hindustan Media Ventures Ltd.	10	80	20	24	12
Unick Fix-A-Form & Printers Ltd.	53	80	20	27	4
Jagran Prakashan Ltd.	82	75	25	37	12
D B Corp Ltd.	79	72	28	41	14
Sandesh Ltd.	92	79	21	26	9
Kiran Print-Pack Ltd.	102	95	5	3	-3
S Chand & Co. Ltd.	119	88	12	9	4
Repro India Ltd.	142	77	23	21	11
Navneet Education Ltd.	248	86	14	13	16
Sundaram Multi Pap Ltd.	243	88	12	14	1
AVG OF INDUSTRY	96	81	19	21	7

Lower Cash conversion cycle indicates effective and efficient working capital management and hence consider those companies having better prospects with having lower operating cost. The companies with low operating cost always have positive impact on operating profit of the company. Such companies having high operating profit due to low operating expenses, generates better returns on amount invested in current assets i.e. return on working capital. Return on assets indicates how well a firm has managed its assets including current assets and generates revenue. Therefore, to check the same, researcher has considered the relevant considerations and found that companies of group one i.e. seven out of twelve companies selected under the study i.e. H T Media Ltd, Sambhaav Media Ltd, Hindustan Media Ventures Ltd, Unick Fix-A-Form & Printers Ltd, Jagran Prakashan Ltd, D B Corp Ltd and Sandesh Ltd, are having lower cash conversion cycle and average operating expenses ratio compared to industry average. The relevant data of such companies related to operating profit ratio, return on working capital and return on assets along with their cash conversion cycle (in days) and operating expenses ratio are presented by the following table :

TABLE 4.10

SUMMARY OF CASH CONVERSION CYCLE, OPERATING EXPENSE RATIO, OPERATING PROFI TRATIO, RETURN ON WORKING CAPITAL AND RETURN ON ASSETS FOR GROUP ONE COMPANIES

Name of the company	Cash Conversion Cycle (in days)	Operating Expenses (% of sales)	Operating Profit Ratio (%)	Return on working capital (%)	Return on Assets (%)
H T Media Ltd.	-50	77	23	21	5
Sambhaav Media Ltd.	31	70	30	21	3
Hindustan Media Ventures Ltd.	10	80	20	24	12
Unick Fix-A-Form & Printers Ltd.	53	80	20	27	4
Jagran Prakashan Ltd.	82	75	25	37	12
D B Corp Ltd.	79	72	28	41	14
Sandesh Ltd.	92	79	21	26	9
AVG OF INDUSTRY	96	81	19	21	7

H T MEDIA LTD

Table 4.9 shows that H T Media Ltd has cash conversion cycle negative 50 days which is much lower than industry average, the impact of the same is observed on average operating expenses ratio being 77% which is just equivalent to industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 23% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 20% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 38% of the total assets is invested in current assets which is less than the average investment of current assets of the industry. It means about 62% amount is invested in fixed assets which is more than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 5% which is lower than industry average. This reveals that in spite of having effective current assets management practice, company fails to generate satisfactory return on assets. Thus, it is found that company has not employed its fixed assets efficiently for generating better returns where as efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

SAMBHAAV MEDIA LTD

Table 4.9 shows that Sambhaav Media Ltd has cash conversion cycle 31 days which is much lower than industry average, the impact of the same is observed on average operating expenses ratio being 70% which is much lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Such lower operating expenses ratio shows positive impact on operating profit ratio which is 30% and higher than industry average. Due to this reason, Company is having average operating profit ratio of 30% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 21% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 35% of the total assets is invested in current assets which is less than the average investment of current assets of the industry. It means about 65% amount is invested in fixed assets which is more than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is only 3% which is lower than industry average. This reveals that in spite of having effective current assets management practice, company fails to generate satisfactory return on assets. Thus, it is found that company has not employed its fixed assets efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

HINDUSTAN MEDIA VENTURES LTD

Table 4.9 shows that Hindustan Media Ventures Ltd has cash conversion cycle 10 days which is much lower than industry average, the impact of the same is observed on average operating expenses ratio being 80% which is lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 20% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 24% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 44% of the total assets is invested in

current assets which is more than the average investment of current assets of the industry. Current ratio of the company is also 2.12 times which is more than the industry average. It also indicates that company is having aggressive policy regarding current assets. It means about 56% amount is invested in fixed assets which is less than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 12% which is higher than industry average. This reveals that effective current assets management practices are advantageous for company to generate satisfactory return on assets. Thus, it is found that company has employed its overall assets, including current assets, efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high returns on working capital.

UNICK FIX-A-FORM & PRINTERS LTD

Table 4.9 shows that Unick Fix-A-Form & Printers Ltd has cash conversion cycle 53 days which is much lower than industry average, the impact of the same is observed on average operating expenses ratio being 80% which is less than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 20% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 27% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 42% of the total assets is invested in current assets which is slightly less than the average investment of current assets of the industry. It means about 58% amount is invested in fixed assets which is more than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 4 % which is lower than industry average. This reveals despite having a good and effective current assets management practice, company fails to generate satisfactory return on assets. Thus, it is found that company has not employed its fixed assets efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

JAGRAN PRAKASHAN LTD

Table 4.9 shows that Jagran Prakashan Ltd has cash conversion cycle 82 days which is much lower than industry average, the impact of the same is observed on average operating expenses ratio being 75% which is much lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, company is having average operating profit ratio of 25% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 37% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 38% of the total assets is invested in current assets which is less than the average investment of current assets of the industry. It means about 62% amount is invested in fixed assets which is more than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 12% which is higher than industry average. This reveals that effective current assets management practice advantages to the company to generate satisfactory return on assets. Thus, it is found that company has employed its overall assets, including current assets, efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

D B CORP LTD

Table 4.9 shows that D B Corp Ltd has cash conversion cycle 79 days which is lower than industry average, the impact of the same is observed on average operating expenses ratio being 72% which is much lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 28% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 41% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 41% of the total assets is invested in current assets which is less than the average investment of current assets of the industry. It

means about 59% amount is invested in fixed assets which is more than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 14% which is lower than industry average. This reveals that effective current assets management practice advantages to company to generate satisfactory return on assets. Thus, it is found that company has employed its total assets efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

SANDESH LTD

Table 4.9 shows that Sandesh Ltd has cash conversion cycle 92 days which is lower than industry average, the impact of the same is observed on average operating expenses ratio being 79% which is much lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 21% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 26% and more than industry average. This reveals that efficient and effective current assets management practices affect positively on operating profit ratio as well as return on working capital. While analysing the balance sheet of the company, it was found that around 47% of the total assets is invested in current assets which is more than the average investment of current assets of the industry. It means about 53% amount is invested in fixed assets which is less than average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 9 % which is more than industry average. This reveals that effective current assets management practice is advantageous to the company to generate satisfactory return on assets. Thus, it is found that company has employed its overall assets, including current assets, efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

Higher Cash conversion cycle indicates ineffective and inefficient working capital management and hence one can consider those companies not having better working capital management practices with having higher operating cost. The companies with high operating cost always have positive impact on operating profit of the company. Such companies having low operating profit due to high operating expenses, generates low returns on amount

invested in current assets i.e. return on working capital. Return on assets indicates how well a firm has managed its assets including current assets and generates revenue. Therefore, to check the same, researcher has considered the relevant considerations and found that companies of group two i.e. five out of twelve companies selected under the study i.e. S Chand & Co Ltd, Navneet Education Ltd, Repro India Ltd, Sundaram Multi Pap Ltd and Kiran Print-Pack Ltd, are having higher cash conversion cycle and average operating expenses ratio compared to industry average. The relevant data of such companies related to operating profit ratio, return on working capital and return on assets along with their cash conversion cycle (in days) and operating expenses ratio are presented by the following table :

TABLE 4.11

SUMMARY OF CASH CONVERSION CYCLE, OPERATING EXPENSE RATIO, OPERATING PROFI TRATIO, RETURN ON WORKING CAPITAL AND RETURN ON ASSETS FOR GROUP TWO COMPANIES

Name of the company	Cash Conversion Cycle (in days)	Operating Expenses (% of sales)	Operating Profit Ratio (%)	Return on working capital (%)	Return on Assets (%)
Kiran Print-Pack Ltd.	102	95	5	3	- 3
S Chand & Co. Ltd.	119	88	12	9	4
Repro India Ltd.	142	86	14	21	11
Sundaram Multi Pap Ltd.	243	88	12	14	1
Navneet Education Ltd.	248	86	14	13	16
AVERAGE OF INDUSTRY	96	81	19	21	7

KIRAN PRINT-PACK LTD

Table 4.11 shows that Kiran Print-Pack Ltd has cash conversion cycle 102 days which is much higher than industry average, the impact of the same is observed on average operating expenses ratio being 95% which is higher than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 5% which is much lower than industry average. Longer cash conversion cycle (in days) associated with high operating expenses ratio has positive impact on return on working capital which is 3% and lower than industry average. This reveals that inefficient and ineffective current assets management practices affect negatively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 68% of the total assets

is invested in current assets which is much higher than the average investment of current assets of the industry. Company's current ratio is 5.61 times which is more than double of its industry average.

It indicates that company is having aggressive policy for its current assets. It means about 32% amount is invested in fixed assets which is equivalent to average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is negative (- 3 %) which is much lower than industry average. This reveals that inefficient and ineffective current assets management practices affect return on assets. Thus, it is found that company has not employed its overall assets, including current assets, efficiently for generating better returns whereas inefficient current assets management practices result into longer cash conversion cycle, low operating profit margin and low return on working capital.

S CHAND & CO LTD

Table 4.11 shows that S Chand & Co Ltd has cash conversion cycle 119 days which is much higher than industry average, the impact of the same is observed on average operating expenses ratio being 88% which is higher than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 12% which is much lower than industry average. Longer cash conversion cycle (in days) associated with high operating expenses ratio has positive impact on return on working capital which is 9% and lower than industry average. This reveals that inefficient and ineffective current assets management practices affect negatively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 42% of the total assets is invested in current assets which is equivalent to the average investment of current assets of the industry.

It means about 58% amount is invested in fixed assets which is equivalent to average investment in fixed assets of the industry. Analysis of return on assets revealed that average return on assets ratios is 4 % which is lower than industry average. This reveals that inefficient and ineffective current assets management practice affect return on assets.

Thus, it is found that company has not employed its overall assets, including current assets, efficiently for generating better returns whereas inefficient current assets management

practices result into longer cash conversion cycle, low operating profit margin and low return on working capital.

REPRO INDIA LTD

Table 4.11 shows that Repro India Ltd has cash conversion cycle 142 days which is much more lower than industry average, the impact of the same is observed on average operating expenses ratio being 86% which is much lower than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 14% which is higher than industry average. Short cash conversion cycle (in days) associated with low operating expenses ratio has positive impact on return on working capital which is 21% and more than industry average.

This reveals that efficient and effective current assets management practices affect positively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 46% of the total assets is invested in current assets which is less than the average investment of current assets of the industry. It means about 54% amount is invested in fixed assets which is more than average investment in fixed assets of the industry.

Analysis of return on assets revealed that average return on assets ratios is 11% which is higher than industry average. This reveals that effective current assets management practice advantages company to generate satisfactory return on assets. Thus, it is found that company has employed its overall assets, including current assets, efficiently for generating better returns whereas efficient current assets management practices result into shorter cash conversion cycle, high operating profit margin and high return on working capital.

SUNDARAM MULTI PAP LTD

Table 4.11 shows that Sundaram Multi Pap Ltd has cash conversion cycle 243 days which is much higher than industry average, the impact of the same is observed on average operating expenses ratio being 88% which is higher than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 12% which is much lower than industry average. Longer cash conversion cycle (in days) associated with high operating

expenses ratio has positive impact on return on working capital which is 14% and lower than industry average.

This reveals that inefficient and ineffective current assets management practices affect negatively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 53% of the total assets is invested in current assets which is more than the average investment of current assets of the industry. It means about 47% amount is invested in fixed assets which is less than average investment in fixed assets of the industry.

Analysis of return on assets revealed that average return on assets ratio is 1 % which is much lower than industry average. This reveals that inefficient and ineffective current assets management practice affect return on assets. Thus, it is found that company has not employed its overall assets, including current assets, efficiently for generating better returns whereas inefficient current assets management practices result into longer cash conversion cycle, low operating profit margin and low return on working capital.

NAVNEET EDUCATION LTD

Table 4.11 shows that Navneet Education Ltd has cash conversion cycle 248 days which is much higher than industry average, the impact of the same is observed on average operating expenses ratio being 86% which is higher than industry average. Strong positive relationship between cash conversion cycle and average operating expenses ratio is found (0.76). Due to this reason, Company is having average operating profit ratio of 14% which is much lower than industry average. Longer cash conversion cycle (in days) associated with high operating expenses ratio has positive impact on return on working capital which is 13% and lower than industry average.

This reveals that inefficient and ineffective current assets management practices affect negatively on operating profit ratio and return on working capital. While analysing the balance sheet of the company, it was found that around 65% of the total assets is invested in current assets which is much higher than the average investment of current assets of the industry. Current ratio of the company is also 2.43 times which is more than industry average of 2 times. It indicates that company is having aggressive policy about current assets. It means about 35% amount is invested in fixed assets which is equivalent to average investment in fixed assets of the industry.

Analysis of return on assets revealed that average return on assets ratios is 16 % which is higher than industry average. Thus, it is found that company has employed its fixed assets efficiently for generating better returns whereas inefficient current assets management practices result into longer cash conversion cycle, low operating profit margin and low return on working capital.

Part three, analysis of the efficiency of cost management :

Cost management plays vital role in management of current assets. An efficient cost management helps the business to control and reduce cost of operations of the business which in turn results in increased profitability. In the first part of the present chapter, it was unfolded that high operating cost affects the length of cash conversion cycle as there is a high degree of positive correlation is found between them. It was found that all the companies of group one i.e. H T Media Ltd, Sambhaav Media Ltd, Hindustan Media Ventures Ltd, Unick Fix-A-Form & Printers Ltd, Jagran Prakashan Ltd, D B Corp Ltd and Sandesh Ltd, have short cash conversion cycle and average operating expenses ratio as compared to industry average. Operating profit margin and return on working capital of all such companies affect positively. These show that effective and efficient cost management with special reference to management of current assets results into controlling and reducing operating cost which in turn helps to generate better returns. It was also learnt that all the companies of group two i.e. S Chand & Co Ltd, Navneet Education Ltd, Repro India Ltd, Sundaram Multi Pap Ltd and Kiran Print-Pack Ltd, have lengthy cash conversion cycle and average operating expenses ratio as compared to industry average. Operating profit margin and return on working capital of all such companies affect negatively.

These show that effective and efficient cost management with special reference to management of current assets results into controlling and reducing operating cost which in turn helps to generate better returns.

To understand the efficiency of current assets management practices, it is also necessary to compare the return on working capital with the cost of capital. Cost of capital is the cost incurred by the firm in the form of annual dividend and interest paid by the firms for using the capital. Total capital is invested in the fixed assets and current assets of the firm. This statement may be criticized by the fact that current assets are not bringing the return, but

calculating return is connected to total assets and moreover current assets are necessary to generate profit. It does not mean that current assets generate profit directly, but the profit after all may be divided into fixed assets and current assets since both of them are necessary for the performance of the company. The data related to cost of capital of each company selected under study is taken from PROWESS IQ database. The return on working capital is calculated in the first part of the present chapter.

The data related to average return on working capital and average cost of capital of all the 12 companies of printing industry selected under study is presented in the following table :

TABLE 4.12

SUMMARY AND DIFFERENCE BETWEEN RETURN ON WORKING CAPITAL AND AVERAGE COST OF CAPITAL

Name of the company	Return on working capital (%)	Average COC (%)	Difference between ROWC and COC
H T Media Ltd.	21	6.31	14.69
Sambhaav Media Ltd.	21	14.29	6.71
Hindustan Media Ventures Ltd.	24	12.12	11.88
Unick Fix-A-Form & Printers Ltd.	27	13.48	13.53
Jagran Prakashan Ltd.	37	6.99	30.01
D B Corp Ltd.	41	6.17	34.83
Sandesh Ltd.	26	3.46	22.54
S Chand & Co. Ltd.	9	9.60	-0.60
Repro India Ltd.	21	5.17	14.83
Navneet Education Ltd.	13	24.64	-11.64
Sundaram Multi Pap Ltd.	14	13.00	1.00
Kiran Print-Pack Ltd.	3	1.91	1.09
AVERAGE OF INDUSTRY	21	9.76	11.24

To see the effective utilisation of capital financed in current assets, average return on working capital is compared with average cost of capital of all the companies of printing industry selected under study.

To check the impact and relationship of average return on working capital and average cost of capital, correlation has been calculated which is negative -0.3541 indicating negative correlation among these two variables.

TABLE 4.13

CORRELATION BETWEEN RETURN ON WORKING CAPITAL AND AVERAGE COST OF CAPITAL

	Return on working capital (%)	*Average COC (%)*
Return on working capital (%)	1	
Average COC (%)	-0.354148959	1

The comparison is done for individual groups viz, Group one and Group two. If return on working capital is higher than average cost of capital, the difference will be positive. This indicates that the average return on working capital is satisfactory. This is an indication of efficient and effective utilisation of capital invested in current assets for generating revenue, and if the difference is negative, then, it signals inefficient and ineffective utilisation of capital invested in current assets.

Group One companies :

Group one includes all the companies having average cash conversion cycle less than the industry average. The data relating to average return on working capital and average cost of capital is shown in the following table :

TABLE 4.14

SUMMARY AND DIFFERENCE BETWEEN RETURN ON WORKING CAPITAL AND AVERAGE COST OF CAPITAL OF GROUP ONE COMPANIES

Name of the company	**Return on working capital (%)**	**Average COC (%)**	**Difference between ROWC and COC**
H T Media Ltd.	23	6.31	16.69
Sambhaav Media Ltd.	21	14.29	6.71
Hindustan Media Ventures Ltd.	24	12.12	11.88
Unick Fix-A-Form & Printers Ltd.	27	13.48	13.53
Jagran Prakashan Ltd.	37	6.99	30.01
D B Corp Ltd.	41	6.17	34.83
Sandesh Ltd.	26	3.46	22.54
AVG OF INDUSTRY	21	9.76	11.24

The average return on working capital of the industry is 21% while the average cost of capital of the industry is around 10%. Group one includes seven out of twelve companies viz, H T

Media Ltd, Sambhaav Media Ltd, Hindustan Media Ventures Ltd, Unick Fix-A-Form & Printers Ltd, Jagran Prakashan Ltd, D B Corp Ltd and Sandesh Ltd. All such companies have return on working capital more than industry average.

On comparing it is found that all the companies of group one has positive difference. This indicates that current assets have been utilised efficiently for generating revenue.

Group Two companies :

Group two includes all the companies having average cash conversion cycle more than the industry average. The data relating to return on working capital and average cost of capital is shown in the following table :

TABLE 4.15

SUMMARY AND DIFFERENCE BETWEEN RETURN ON WORKING CAPITAL AND AVERAGE COST OF CAPITAL OF GROUP ONE COMPANIES

Name of the company	Return on working capital (%)	Average COC (%)	Difference between ROWC and COC
S Chand & Co. Ltd.	9	9.60	-0.60
Repro India Ltd.	21	5.17	15.83
Navneet Education Ltd.	13	24.64	-11.64
Sundaram Multi Pap Ltd.	14	13.00	1.00
Kiran Print-Pack Ltd.	3	1.91	1.09
AVG OF INDUSTRY	21	9.76	11.24

The average return on working capital of the industry is 21% while the average cost of capital of the industry is around 10%. Group two includes seven out of twelve companies viz, S Chand & Co Ltd, Navneet Education Ltd, Repro India Ltd, Sundaram Multi Pap Ltd and Kiran Print-Pack Ltd. All such companies have return on working capital less than industry average except Repro India Ltd. On comparing it is found that two companies S Chand & Co Ltd and Navneet Education Ltd have negative difference of -0.60 and -11.64. Another two companies Sundaram Multi Pap Ltd and Kiran Print-Pack Ltd have difference near to 1 which is very low. This indicates that cost of capital invested in current assets has been utilised inefficiently for generating revenue.

Part Four, Analysis of Relationship and Impact of Management of Current Assets on Profitability

In fourth part, an attempt is made to gauge the relationship and impact of management of current assets i.e. debtors management, inventory management, cash management, liquidity and overall working capital management on profitability of select companies of printing industry based on Group One and Group Two of the companies created in the earlier part.

After reviewing the literature and analysing each select company of printing industry with the help of ratios, the following variables were identified to assess the impact of management of current assets practices on performance i.e. profitability, and the equation to analyse the same is as follows :

$$\text{Profitability} = \beta 0 + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + \beta 5\ X5 + \beta 6\ X6 + \beta 7\ X7 + \beta 8\ X8 + \beta 9\ X9 + E$$

Profitability = Return on Total Assets (ROTA) , Return on Working Capital (ROWC), Operating Profit Margin (OPM)

$\beta 0$ = Constant value for independent variables

X1, X2, X3, X4, X5, X6, X, X8, X9 are independent variables

$\beta 1, \beta 2, \beta 3, \beta 4, \beta 5, \beta 6, \beta 7, \beta 8, \beta 9$ are the coefficient of independent variables

X1 = CR = Current Ratio

X2 = QR = Quick Ratio

X3 = DTR = Debtors Turnover Ratio

X4 = ITR = Inventory Turnover Ratio

X5 = CTR = Creditors Turnover Ratio

X6 = CCC = Cash Conversion Cycle

X7 = DCA = Debtors to Current Assets Ratio

X8 = ICA = Inventory to Current Assets Ratio

X9 = CCCA = Cash and Cash equivalents to Current Assets Ratio

E = Error term

Regression Analysis: Impact of Current Assets Management Practices and Return on Assets :

GROUP ONE COMPANIES :

TABLE 4.16

MODEL SUMMARY[B]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.851[a]	.725	.693	.02771	1.781

a. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR

b. Dependent Variable: ROTA

The *R* value represents the simple correlation and is 0.851, which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 72.5 % can be explained, which is very large.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

TABLE 4.17

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.121	9	.013	17.532	.000[b]
	Residual	.046	60	.001		
	Total	.167	69			

a. Dependent Variable: ROTA

b. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable. These results estimate that as the p-value of the ANOVA table is below the tolerable significance level, thus there is a possibility of rejecting the null hypothesis in further analysis.

Below table shows the strength of the relationship i.e. the significance of the variable in the model and magnitude with which it impacts the dependent variable. This analysis helps in performing the hypothesis testing for a study.

The **Coefficients** table provides us with the necessary information to predict ROWC from all ratio Current ratio, Quick ratio, Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore, we can use the values in the "**B**" column under the "**Unstandardized Coefficients**" column, as shown below:

TABLE 4.18

COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.127	.026		-4.891	.000
	CR	.065	.020	1.310	3.229	.002
	QR	-.069	.021	-1.283	-3.283	.002
	DTR	.024	.003	.776	7.471	.000
	ITR	-.001	.000	-.146	-1.748	.051
	CTR	.006	.001	.435	4.629	.000
	CCC	.010	.002	.555	5.532	.000
	DCA	.146	.033	.484	4.398	.000
	ICA	-.181	.052	-.304	-3.474	.001
	CCCA	.144	.051	.233	2.840	.006
a. Dependent Variable: ROTA						

ROTA = -0.127 + 0.065 CR – 0.069 QR + 0.024 DTR – 0.001 ITR + 0.006 CTR + 0.010 CCC + 0.146 DCA – 0.181 ICA + 0.144 CCCA. The result of coefficient above significantly revealed – 0.127 constant value. The interpretation of coefficient of independent variable is tabulated as follows:

TABLE 4.19

INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON ROTA (GROUP ONE)

Independent Variable	Sig. value	Interpretation
CR	.002	There is a significant change in ROTA due to change in CR (sig. value .002, $p < .05$). With increase of 1 time in current ratio, ROTA will increase by 6.5%.
QR	.002	There is a significant change in ROTA due to change in QR (sig. value .002, $p < .05$). with increase of 1 time in quick ratio, ROTA will negatively affect by 6.9%.
DTR	.000	There is a significant change in ROTA due to change in DTR (sig. value .000, $p < .05$). with increase of 1 time in debtors turnover ratio, ROTA will increase by 2.4 %.
ITR	.051	There is a significant change in ROTA due to change in ITR (sig. value .056). with increase of 1 time in ITR, ROTA will affect

Independent Variable	Sig. value	Interpretation
		negatively by 1 %.
CTR	.000	There is a significant change in ROTA due to change in CTR (sig. value .000, p < .05). with increase of 1 time in CTR, ROTA will increase by 6 %.
CCC	.000	There is a significant change in ROTA due to change in CCC (sig. value .000, p < .05). with increase of 1 time in CCC, ROTA will increase by 10 %.
DCA	.000	There is a significant change in ROTA due to change in DCA (sig. value .000, p < .05). with increase of 1 time in DCA, ROTA will increase by 14.6 %.
ICA	.001	There is a significant change in ROTA due to change in ICA (sig. value .001, p < .05). with increase of 1 time in ICA, ROTA will affect negatively by 18.1%.
CCCA	.006	There is a significant change in ROTA due to change in CCCA (sig. value .006, p < .05). with increase of 1 time in CCCA, ROTA will increase by 14.4 %.

GROUP TWO COMPANIES:

TABLE 4.20

MODEL SUMMARY[B]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.823[a]	.677	.604	.05691	1.703

a. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA
b. Dependent Variable: ROTA

The *R* value represents the simple correlation and is 0.823, which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 67.7 % can be explained, which is very large.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

TABLE 4.21
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.272	9	.030	9.321	.000[b]
	Residual	.130	40	.003		
	Total	.401	49			

a. Dependent Variable: ROTA

b. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable. These results estimate that as the p-value of the ANOVA table is below the tolerable significance level, thus there is a possibility of rejecting the null hypothesis in further analysis.

Below table shows the strength of the relationship i.e. the significance of the variable in the model and magnitude with which it impacts the dependent variable. This analysis helps in performing the hypothesis testing for a study. The Coefficients table provides us with the necessary information to predict ROWC from all ratios i.e. Current ratio, Quick ratio, Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore, we can use the values in the "**B**" column under the "Unstandardized Coefficients" column, as shown below:

TABLE 4.22
COEFFICIENTS[A]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.125	.043		-2.869	.007		
	CR	.012	.006	.302	1.931	.061	.329	3.036
	QR	-.031	.012	-.326	-2.564	.014	.500	2.001
	DTR	.031	.012	.600	2.562	.014	.147	6.791

	ITR	-.002	.003	-.082	-.727	.471	.637	1.571
	CTR	.005	.002	.378	2.006	.052	.227	4.398
	CCC	-.009	.006	-.167	-1.663	.104	.802	1.247
	DCA	.211	.051	.481	4.115	.000	.591	1.691
	ICA	-.121	.103	-.282	-1.182	.244	.141	7.076
	CCCA	.387	.150	.310	2.590	.013	.562	1.779

a. Dependent Variable: ROTA

ROTA = -0.125 + 0.012 CR – 0.031 QR + 0.031 DTR – 0.002 ITR + 0.005 CTR - 0.009 CCC + 0.211 DCA – 0.121 ICA + 0.387 CCCA

The result of coefficient above significantly revealed – 0.125 constant value.

The interpretation of coefficient of independent variable is tabulated as follows:

TABLE 4.23

INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON ROTA (GROUP TWO)

Independent Variable	Sig. value	Interpretation
CR	.061	No significant change in ROTA due to change in CR. This is because of the Sig. value is 0.061, which is more than the acceptable limit of 0.05.
QR	.014	There is a significant change in ROTA due to change in QR (sig. value .014, p<0.05). with increase of 1 time in QR, ROTA will affect negatively by 3.1 %.
DTR	.014	There is a significant change in ROTA due to change in DTR (sig. value .014, p<0.05). with increase of 1 time in ITR, ROTA will increase by 3.1 %.
ITR	.471	No significant change in ROTA due to change in ITR. This is because of the Sig. value is 0.471, which is more than the acceptable limit of 0.05.
CTR	.052	No significant change in ROTA due to change in CTR. This is because of the Sig. value is 0.052, which is more than the acceptable limit of 0.05.
CCC	.104	No significant change in ROTA due to change in CCC. This is because of the Sig. value is 0.104, which is more than the acceptable

Independent Variable	Sig. value	Interpretation
		limit of 0.05.
DCA	.000	There is a significant change in ROTA due to change in DCA (sig. value .000, p < .05). with increase of 1 time in DCA, ROTA will increase by 21.1 %.
ICA	.244	No significant change in ROTA due to change in ICA. This is because of the Sig. value is 0.244, which is more than the acceptable limit of 0.05.
CCCA	.013	There is a significant change in ROTA due to change in CCCA (sig. value .013, p < .05). with increase of 1 time in CCCA, ROTA will increase by 38.7 %.

Regression Analysis: Impact of Current Assets Management Practices and Return on Working Capital (ROWC) :

GROUP ONE COMPANIES :

TABLE 4.24
MODEL SUMMARY[B]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.792[a]	.628	.572	.08318	1.589

a. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR
b. Dependent Variable: ROWC

The *R* value represents the simple correlation and is 0.792 , which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 62.8 % can be explained, which is very large.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

TABLE 4.25
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.700	9	.078	11.247	.000[b]
	Residual	.415	60	.007		
	Total	1.116	69			

a. Dependent Variable: ROWC
b. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable.

The **Coefficients** table provides us with the necessary information to predict ROWC from all ratio Current ratio, Quick ratio, Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore, we can use the values in the "**B**" column under the "**Unstandardized Coefficients**" column, as shown below:

TABLE 4.26
COEFFICIENTS[A]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.145	.078		-1.858	.008
	CR	.082	.061	.641	1.360	.017
	QR	-.098	.063	-.706	-1.554	.012
	DTR	.025	.010	.314	2.599	.012
	ITR	.001	.001	.093	.958	.034
	CTR	.009	.004	.262	2.400	.019
	CCC	.026	.006	.540	4.632	.000
	DCA	.550	.100	.705	5.520	.000
	ITA	-.037	.157	-.024	-.236	.051
	CCCA	.167	.152	.105	1.102	.027

a. Dependent Variable: ROWC

ROWC = -0.145 + 0.082 CR – 0.098 QR + 0.025 DTR – 0.001 ITR + 0.009 CTR + 0.026 CCC + 0.550 DCA – 0.037 ICA + 0.167 CCCA

The result of coefficient above significantly revealed – 0.145 constant value.

The interpretation of coefficient of independent variable is tabulated as follows:

TABLE 4.27

INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON ROWC (GROUP ONE)

Independent Variable	Sig. value	Interpretation
CR	.017	There is a significant change in ROWC due to change in CR (sig. value .002, p < .05). with increase of 1 time in current ratio, ROWC will increase by 8.2 %.
QR	.012	There is a significant change in ROWC due to change in QR (sig. value .002, p < .05). with increase of 1 time in quick ratio, ROWC will negatively affect by 9.8 %.
DTR	.012	There is a significant change in ROWC due to change in DTR (sig. value .000, p < .05). with increase of 1 time in debtors turnover ratio, ROWC will increase by 2.5 %.
ITR	.034	There is a significant change in ROWC due to change in ITR (sig. value .056). with increase of 1 time in ITR, ROWC will affect negatively by 1 %.
CTR	.019	There is a significant change in ROWC due to change in CTR (sig. value .000, p < .05). with increase of 1 time in CTR, ROWC will increase by 9 %.
CCC	.000	There is a significant change in ROWC due to change in CCC (sig. value .000, p < .05). with increase of 1 time in CCC, ROWC will increase by 2.6 %.
DCA	.000	There is a significant change in ROWC due to change in DCA (sig. value .000, p < .05). with increase of 1 time in DCA, ROWC will increase by 5.5 %.
ITA	.051	There is a significant change in ROWC due to change in ITA (sig. value .001, p < .05). with increase of 1 time in ITA, ROWC will affect negatively by 3.7 %.
CCCA	0.027	There is a significant change in ROWC due to change in CCCA (sig. value .006, p < .05). with increase of 1 time in CCCA, ROWC will increase by 2.7 %.

GROUP TWO COMPANIES:

TABLE 4.28
MODEL SUMMARY[B]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.800[a]	.641	.560	.07236	1.778

a. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA
b. Dependent Variable: ROWC

The *R* value represents the simple correlation and is 0.800, which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 64.1 % can be explained, which is very large. The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

TABLE 4.29
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.373	9	.041	7.920	.000[b]
	Residual	.209	40	.005		
	Total	.583	49			

a. Dependent Variable: ROWC
b. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable. These results estimate that as the p-value of the ANOVA table is below the tolerable significance level, thus there is a possibility of rejecting the null hypothesis in further analysis.Below table shows the strength of the relationship i.e. the significance of the variable in the model and magnitude with which it impacts the dependent variable. This analysis helps in performing the hypothesis testing for a study.

The **Coefficients** table provides us with the necessary information to predict ROWC from all ratios i.e. Current ratio, Quick ratio, Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore,

we can use the values in the "**B**" column under the "**Unstandardized Coefficients**" column, as shown below :

TABLE 4.30

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.019	.055		-.339	.036		
	CR	-.002	.008	-.041	-.246	.807	.329	3.036
	QR	-.031	.015	-.268	-2.001	.052	.500	2.001
	DTR	.047	.015	.764	3.093	.004	.147	6.791
	ITR	.005	.004	.169	1.421	.163	.637	1.571
	CTR	.004	.003	.253	1.273	.210	.227	4.398
	CCC	-.004	.007	-.061	-.580	.565	.802	1.247
	DCA	.139	.065	.262	2.124	.040	.591	1.691
	ICA	-.189	.130	-.365	-1.447	.156	.141	7.076
	CCCA	-.018	.190	-.012	-.093	.927	.562	1.779

a. Dependent Variable: ROWC

ROWC = - 0.019 – 0.002 CR – 0.031 QR + 0.047 DTR – 0.005 ITR + 0.004 CTR - 0.004 CCC + 0.139 DCA – 0.189 ICA – 0.018 CCCA. The result of coefficient above significantly revealed – 0.125 constant value. The interpretation of coefficient of independent variable is tabulated as follows:

TABLE 4.31

INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON ROWC (GROUP TWO)

Independent Variable	Sig. value	Interpretation
CR	.807	No significant change in ROWC due to change in CR. This is because of the Sig. value is 0.061, which is more than the acceptable limit of 0.05.
QR	.052	No significant change in ROWC due to change in CR. This is because of the Sig. value is 0.052, which is more than the acceptable limit of 0.05.
DTR	.004	There is a significant change in ROWC due to change in DTR (sig. value .004, $p<0.05$). with increase of 1 time in ITR, ROTA will

Independent Variable	Sig. value	Interpretation
		increase by 4.7 %.
ITR	.163	No significant change in ROWC due to change in ITR. This is because of the Sig. value is 0.163, which is more than the acceptable limit of 0.05.
CTR	.210	No significant change in ROWC due to change in CTR. This is because of the Sig. value is 0.210, which is more than the acceptable limit of 0.05.
CCC	.565	No significant change in ROWC due to change in CCC. This is because of the Sig. value is 0.565, which is more than the acceptable limit of 0.05.
DCA	.040	There is a significant change in ROWC due to change in DCA (sig. value .040, $p < .05$). with increase of 1 time in DCA, ROTA will increase by 13.9 %.
ICA	.156	No significant change in ROWC due to change in ICA. This is because of the Sig. value is 0.156, which is more than the acceptable limit of 0.05.
CCCA	.927	No significant change in ROWC due to change in ICA. This is because of the Sig. value is 0.927, which is more than the acceptable limit of 0.05.

Regression Analysis: Impact of Current Assets Management Practices and Operating Profit Margin (OPM) :

GROUP ONE COMPANIES:

Table 4.32 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.613[a]	.376	.282	.05471	1.561

a. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR

b. Dependent Variable: OPM

The *R* value represents the simple correlation and is 0.613 , which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 37.6 % can be explained.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table 4.33 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.108	9	.012	4.018	.000[b]
	Residual	.180	60	.003		
	Total	.288	69			

a. Dependent Variable: OPM

b. Predictors: (Constant), CCCA, ITA, DCA, QR, CTR, ITR, CCC, DTR, CR

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable.

The Coefficients table provides us with the necessary information to predict ROWC from all ratio Current ratio, Quick ratio, Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore, we can use the values in the "B" column under the "Unstandardized Coefficients" column, as shown below:

Table 4.34 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.190	.051		3.707	.000
	CR	.031	.040	.469	.768	.044
	QR	-.030	.041	-.432	-.734	.046
	DTR	.007	.006	.166	1.061	.029
	ITR	-.001	.001	-.168	-1.342	.018
	CTR	.002	.002	.133	.938	.035
	CCC	.006	.004	.251	1.666	.010
	DCA	.175	.066	.442	2.670	.010

	ICA	-.291	.103	-.372	-2.826	.006
	CCCA	.223	.100	.276	2.230	.029

a. Dependent Variable: OPM

OPM = 0.190 + 0.031 CR – 0.030 QR - 0.007 DTR – 0.001 ITR + 0.002 CTR + 0.006 CCC + 0.175 DCA – 0.291 ICA + 0.223 CCCA The result of coefficient above significantly revealed 0.190 constant value. The interpretation of coefficient of independent variable is tabulated as follows:

Table 4.35. INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON OPM (GROUP ONE)

Independent Variable	Sig. value	Interpretation
CR	.044	There is a significant change in OPM due to change in CR (sig. value .002, p < .05). with increase of 1 time in current ratio, OPM will increase by 3.1 %.
QR	.046	There is a significant change in OPM due to change in QR (sig. value .002, p < .05). with increase of 1 time in quick ratio, OPM will negatively affect by 3 %.
DTR	.029	There is a significant change in OPM due to change in DTR (sig. value .000, p < .05). with increase of 1 time in debtors turnover ratio, OPM will negatively affect by 0.7 %.
ITR	.018	There is a significant change in OPM due to change in ITR (sig. value .056). with increase of 1 time in ITR, OPM will affect negatively by 0.1 %.
CTR	.035	There is a significant change in OPM due to change in CTR (sig. value .000, p < .05). with increase of 1 time in CTR, OPM will increase by 0.2 %.
CCC	.010	There is a significant change in OPM due to change in CCC (sig. value .000, p < .05). with increase of 1 time in CCC, OPM will increase by 0.6 %.
DCA	.010	There is a significant change in OPM due to change in DCA (sig. value .000, p < .05). with increase of 1 time in DCA, OPM will increase by 17.5 %.
ITA	.006	There is a significant change in OPM due to change in ITA (sig. value .001, p < .05). with increase of 1 time in ITA, OPM will affect negatively by 29.1 %.

Independent Variable	Sig. value	Interpretation
CCCA	0.029	There is a significant change in OPM due to change in CCCA (sig. value .006, p < .05). with increase of 1 time in CCCA, OPM will increase by 22.3 %.

GROUP TWO COMPANIES :

Table 4.36 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.645[a]	.416	.284	.09788	2.444

a. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA
b. Dependent Variable: OPM

The *R* value represents the simple correlation and is 0.645, which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, can be explained by the independent variable, in this case, 41.6 % can be explained.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table 4.37 ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.273	9	.030	3.162	.006[b]
	Residual	.383	40	.010		
	Total	.656	49			

a. Dependent Variable: OPM
b. Predictors: (Constant), CCCA, DCA, CCC, CTR, QR, ITR, CR, DTR, ITA

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p <$ 0.000, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable. These results estimate that as the p-value of the ANOVA table is below the tolerable significance level, thus there is a possibility of rejecting the null hypothesis in further analysis.

Below table shows the strength of the relationship i.e. the significance of the variable in the model and magnitude with which it impacts the dependent variable. This analysis helps in performing the hypothesis testing for a study. The Coefficients table provides us with the necessary information to predict ROWC from all ratios i.e. Current ratio, Quick ratio,

Debtors Turnover ratio, Inventory Turnover ratio, Creditors Turnover ratio, Cash conversion cycle, Debtors to Current assets ratio, Inventory to Current assets ratio and Cash and cash equivalents to Current assets ratio, as well as determine whether ROWC contributes statistically significantly to the model. Furthermore, we can use the values in the "B" column under the "Unstandardized Coefficients" column, as shown below:

Table 4.38. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.047	.075		-.629	.053		
	CR	-.012	.011	-.246	-1.168	.250	.329	3.036
	QR	.024	.021	.196	1.144	.260	.500	2.001
	DTR	.031	.021	.478	1.517	.137	.147	6.791
	ITR	.008	.005	.242	1.595	.118	.637	1.571
	CTR	.004	.004	-.007	-.027	.979	.227	4.398
	CCC	-.003	.010	-.039	-.292	.772	.802	1.247
	DCA	.077	.088	.137	.873	.388	.591	1.691
	ITA	.084	.177	.154	.479	.635	.141	7.076
	CCCA	.032	.257	.020	.125	.901	.562	1.779
a. Dependent Variable: OPM								

OPM = - 0.047 – 0.012 CR – 0.024 QR + 0.031 DTR + 0.008 ITR + 0.004 CTR - 0.003 CCC + 0.077 DCA – 0.084 ICA – 0.032 CCCA The result of coefficient above significantly revealed – 0.047 constant value. The interpretation of coefficient of independent variable is tabulated as follows:

Table 4.39. INTERPRETATION OF COEFFICIENTS OF INDEPENDENT VARIABLES ON OPM (GROUP TWO)

Independent Variable	Sig. value	Interpretation
CR	.250	No significant change in OPM due to change in CR. This is because of the Sig. value is 0.250, which is more than the acceptable limit of 0.05.
QR	.260	No significant change in OPM due to change in QR. This is because of the Sig. value is 0.260, which is more than the acceptable limit of 0.05.
DTR	.137	No significant change in OPM due to change in DTR. This is because of the Sig. value is 0.137, which is more than the acceptable

		limit of 0.05.
ITR	.118	No significant change in OPM due to change in ITR. This is because of the Sig. value is 0.118, which is more than the acceptable limit of 0.05.
CTR	.979	No significant change in OPM due to change in CTR. This is because of the Sig. value is 0.979, which is more than the acceptable limit of 0.05.
CCC	.772	No significant change in OPM due to change in CCC. This is because of the Sig. value is 0.772, which is more than the acceptable limit of 0.05.
DCA	.388	No significant change in OPM due to change in DCA. This is because of the Sig. value is 0.388, which is more than the acceptable limit of 0.05.
ICA	.635	No significant change in OPM due to change in ICA. This is because of the Sig. value is 0.635, which is more than the acceptable limit of 0.05.
CCCA	.901	No significant change in OPM due to change in CCCA. This is because of the Sig. value is 0.901, which is more than the acceptable limit of 0.05.

Findings :

Group one companies :

- It is found that the companies of group one with conservative policy for investment in current assets have higher return on working capital than industry average.
- The average return on working capital of the industry is 21% while the average cost of capital of the industry is around 10%. All the companies of Group One have return on working capital more than industry average. The companies of group one have positive difference between ROWC and COC. This indicates that current assets have been utilised efficiently for generating revenue.
- The current assets management practices adopted by select companies of printing industries in Group One have positive impact on Profitability i.e. the operating profit margin, return on working capital and return on assets such effective and efficient management of current assets positively affect return on assets.
- Companies of printing industries in Group One have adopted efficient and effective

current assets management practices which lead to short cash conversion cycle, low operating expense ratio, high operating profit ratio and high return on working capital with optimum investment in current assets such effective and efficient management of current assets positively affect return on assets.

Group two companies:

- Companies of printing industries in Group Two have adopted inefficient current assets management practices leading to long cash conversion cycle, high operating expense ratio, low operating profit ratio and low return on working capital thereby adversely affect the profitability.

- The average return on working capital of the industry is 21% while the average cost of capital of the industry is around 10%. All the companies of Group Two have return on working capital less than industry average. The companies of group two have negative difference between ROWC and COC. This indicates that cost of capital invested in current assets have been utilised inefficiently for generating revenue.
- Companies of printing industries in Group two have adopted inefficient and ineffective current assets management practices which lead to long cash conversion cycle, how operating expense ratio, low operating profit ratio affects operating profit ratio and return on working capital ineffective and inefficient management of current assets adversely affect return on assets.
- The current assets management practices adopted by selected companies of printing industries in Group Two have negative impact on Profitability i.e. the operating profit margin, return on working capital and return on assets.

Overall Findings :

- Operating profit ratio is highest 30% in case of Sambhaav Media Ltd which puts it on first position followed by D B Corp Ltd with 28% on second position. Then arranging the companies in descending order with their average operating profit ratio Jagran Prakashan Ltd 25%, Repro India Ltd 23%, Sandesh Ltd 21% places on third, fourth and fifth position respectively. Hindustan Media Ventures Ltd and Unick Fix-A-Form & Printers Ltd with same average operating expense ratio share sixth position simultaneously. H T Media Ltd with 19% is last in group one companies.

- Return on working capital is highest 41% in case of D B Corp Ltd which puts it on first position followed by Jagran Prakashan Ltd with 37% on second position. Then arranging

the companies in descending order with their average return on working capital Unick Fix-A-Form Ltd 27%, Sandesh Ltd 26%, Hindustan Media Venture Ltd 24% place on third, fourth and fifth position respectively. Sambhaav Media Ltd and Repro India Ltd with same average return on working capital ratio of 21% share sixth position simultaneously. H T Media Ltd with 20% is last in group one companies.

- Return on assets is highest 13.75% in D B Corp Ltd which put is on first position followed by Hindustan Media Ventures Ltd with 11.72% on second position. Then arranging the companies in descending order with their average return on assets Jagran Prakashan Ltd 11.49%, Repro India Ltd 10.82%, Sandesh Ltd 9.14%, H T Media Ltd 5%, Unick Fix-A-Form & Printers Ltd 4.13% place on third, fourth, fifth, sixth and seventh position respectively. Sambhaav Media Ltd with 2.55% is last in group one companies.

- It is observed that D B Corp Ltd whose return on working capital is highest i.e. 41% among group one companies, its return on working capital is also highest i.e. 13.75%. This indicates that good return on working capital helps companies to generate good return on assets. Similar results are also found for Jagran Prakashan Ltd, Hindustan Media Ventures Ltd, Repro India Ltd and Sandesh Ltd.

- In Group One companies a positive impact of high return on working capital is observed based on return on assets. Return on assets of these companies are more than industry average.

- At the same time, it is observed that in spite of high return on working capital as compared to industry of three companies from Group One have lower return on assets as compared to industry average viz., H T Media Ltd, Unick Fix-A-Form Ltd and Sambhaav Media Ltd. H T Media Ltd has 20% return on working capital more than industry average whereas its return on assets is only 5% less than industry average. Similar result is found in case of Unick Fix-A-Form Ltd and Sambhaav Media Ltd. The return on working capital of such companies is more than industry average but the average return on assets is less than the industry average.

- Efficient and effective current assets management practices lead to short cash conversion cycle, low operating expense ratio, high operating profit ratio and high return on working capital with optimum investment in current assets.

- Conservative policy leads to strong liquidity position at the same time affects profitability negatively whereas aggressive policy results into better profitability position at the same time it affects liquidity negatively. Optimum level of investment in current assets generate better return on working capital as well as return on assets.
- The current assets management practices adopted by select companies of printing industries have impact on Profitability i.e. the operating profit margin, return on working capital and return on assets.
- Efficient and effective current assets management practices lead to short cash conversion cycle, low operating expense ratio, high operating profit ratio and high return on working capital with optimum investment in current assets.
- A satisfactory return on working capital helps companies to generate good return on assets.
- There is a high degree of positive correlation between cash conversion cycle and operating expenses. The lengthier the cash conversion cycle, the higher the operating expenses and vice a versa.
- There is a significant negative relationship between cash conversion cycle and operating profit. The shorter the cash conversion cycle the higher the operating profit and vice a versa.
- Lower operating profit and increase in the accounts payable days have association.
- There is a positive relationship between cash conversion cycle and return on assets
- The firms can also increase their profitability by shortening cash conversion cycle.
- Study found association between operating profit and accounts payable days.
- The positive relationship between average receivable days and firms operating profit margin suggested that less profitable firms will pursue a decrease of their accounts receivable days in an attempt to reduce their cash gap in the cash conversion cycle. Less profitable firms wait longer to pay their bills, taking advantage of credit period granted by their suppliers.
- There is a significant negative association existing between the time taken by the firms to collect cash from receivables and the profitability.
- An efficient management of receivables and inventory is necessary to have strong liquidity position which improves the financial health of firms. This affects positively on the profitability of firms.

- Conservative policy leads to strong liquidity position, at the same time affects profitability negatively whereas aggressive policy results into better profitability position at the same time it affects liquidity negatively. Optimum level of investment in current assets generate better return on working capital as well as return on assets.

Reference :

Financial Management : Theory and Practice, Prasanna Chandra, Mc Graw Hill, 9th Ed. 2011

Financial Management Shim, J. K., & Siegel, J. G., Mc Graw Hill. (107-108) 2007

Financial Management, I M Pandey, Vikas Publishing House Pvt Ltd, 11th Ed. 2015

Financial Management, Shim, J. K., & Siegel, J. G. Mc Graw Hill (107-108) 2007

Financial Management: Theory and Practice Bringham, E. F. and M. C. Ehrhardt, Thomson South-Western, Mason, OH, 12th Ed. 2008

Fundamentals of financial management, Brigham, F. and Houston, F., McGraw-Hill Inc: New York, 10th ed., 2003

Fundamentals of Financial Management, Dr. R. P. Rustogi, Taxmann Publications Private Ltd, 7th Ed. 2011

Fundamentals of Financial Management, Rao R. K. S., Macmillan publishers, 3rd Ed. 2014

https://statistics.laerd.com/spss-tutorials/one-way-anova-using-spss-statistics-2.php

Operations Managemen, Stevenson, N-Y Mc Grau Hill Publishing Inc. B. U. (321-340) 2010

Quantitative Techniques, C. R. Kothari, Vikas Publishing House Private Ltd, 2014

Research Methodology: Methods and Techniques, C. R. Kothari, New Age International (P) Ltd Publishers, 2nd Ed. 2004

Van Horne J. C., & Wachowicz J. M. (2001). Fundamentals of Financial Management. (11th ed.). Delhi, India: Addison Wesley Longman Pte Ltd., p. 434.

VanHorne J. C., & Wachowicz J.M. (2004). Fundamentals of financial management, Prentice Hall.

Working Capital Management : A Conceptual Approach, Dhiraj Sharma, Himalaya Publishing House, 2014

Working Capital Management And Control (Principles And Applications), Mathur and Satish B. New Age International (P) Ltd Publishers, 2nd Ed. 2013

Working Capital Management, V. K. Bhalla, S. Chand & Company, 2014