A Study on Asset and Liability Management of Star PVC Pipes and Fittings (P) Ltd

Dr. Salini B Nair[1], Rehana Cross K[2]

[1]*Associate Professor, Dept of Management Studies, Institute of Management & Technology, Pottore, Kerala, India*
[2] *Management Student, Institute of Management & Technology, Pottore, Kerala, India*

Abstract: **Asset and Liability Management is used to balance the assets and liabilities of the organization. Asset and liability management is an ongoing process of formulating, implementing, monitoring and revising strategies related to assets and liabilities with an attempt to achieve financial objectives for a given set of risk tolerances and constraints. The company tries to keep proper balance between the assets and liabilities and increasing the growth and profitability. This study is conducted to analyze the asset and liability management with regarding the following variables such as profitability and liquidity position of STAR PVC pipes and fittings. Here the company wants to know whether these assets and liabilities are managed efficiently or not.**

I. INTRODUCTION

Asset and Liability Management (ALM) is a strategic approach of managing the balance sheet dynamics in such a way that the net earnings are maximized. This approach is concerned with management of net interest margin to ensure that its level and riskiness are compatible with the risk return objectives. Asset and Liability Management (ALM) defines management of all assets and liabilities (both off and on balance sheet items) of an organization. It requires assessment of various types of risks and altering the asset liability portfolio to manage risk. Asset and Liability Management is a key driver of an organization's profitability and long term sustainability and it is a portfolio management of assets and liabilities of an organization. This is a method of matching various assets with liabilities on the basis of expected rates of return and expected maturity pattern. In the context of ALM is defined as "a process of adjusting liability to meet loan demands, liquidity needs and safety requirements". This will result in optimum value of the same time reducing the risks faced by them and managing the different types of risks by keeping it within acceptable levels.

II. OBJECTIVES OF THE STUDY

- To know the asset and liability position of the STAR PVC PIPES AND FITTINGS (P) LTD.
- To know about the factors affecting the asset and liability position of the company.
- To analyze the Asset and Liability position of the company.

III. REVIEW OF LITERATURE

Uyemura (1991) in an interview with the Banker's Magazine presented his view that Asset Liability Management (ALM) is the function of the bank that attempts to reconcile risks and returns. Trends such as the movement towards market value concepts, cash flow concepts and capital allocation activities are all part of ALM responsibilities, and therefore, are deeply ingrained in some of the fundamental trends in the banking environment.

Amit Kumar Meena and Joydip Dhar (2014) research focused on the analysis and comparison of liquidity ratios and asset liability management practiced in top three banks from public, private and foreign sector in India. The analysis was based upon the liquidity ratios calculation and the determination of maturity gap profiles for the banks under study. The results of this study suggested that overall banks in India have very good short term liquidity position and all banks were financing their short term liabilities by their long term assets.

Narayan Baser (2014) study indicates that Asset-Liability Management (ALM) was a comprehensive and dynamic framework for measuring, monitoring and managing the market risk of a bank. The study attempted to evaluate the changing perspectives of the banks in identifying and facing the risks and maintaining Asset Quality so as to ensure profitability with the help of ALM techniques

IV. RESEARCH METHODOLOGY

Field of study: Finance

Variables under study:

Dependent variable

Asset and Liability Management of Star PVC Pipes and Fittings (P) ltd

Independent variable

- profitability
- liquidity position
- Asset-liability position

Research design

Descriptive research design is used for the study

Data needed for study:

- Secondary data

Data collection tool:

Secondary data tools

- Published sources are like annual report of the company, company website and text books.

Analytical tool

- Trend analysis, Ratio analysis, Comparative and Common Size Statements , Gap analysis

V. DATA ANALYSIS

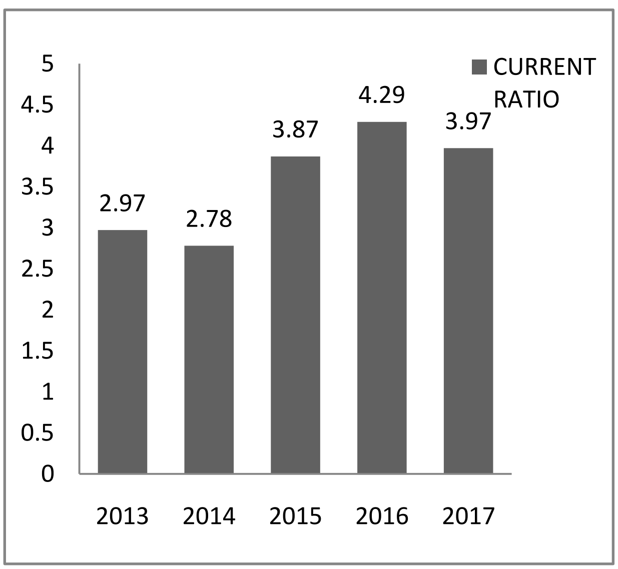
CURRENT RATIO

Current Ratio= Current Assets / Current Liability

TABLE 1

Year	Current Assets	Current Liabilities	Current Ratio
2013	225897122	75947887	2.97
2014	265891024	95744188	2.78
2015	368183244	95051145	3.87
2016	436690255	101894487	4.29
2017	443428851	111598842	3.97

CHART 1



The current ratio represents the relation between the current assets and current liabilities. The ideal current ratio is 2:1. The current ratio is above the standard in all the five years. Its current assets are more than its current liabilities which is beneficial to the short term creditors. The current ratio of the company is high in year 2016 while compare to other years. The higher the current ratio, the greater the firm's ability to meet short term debts.

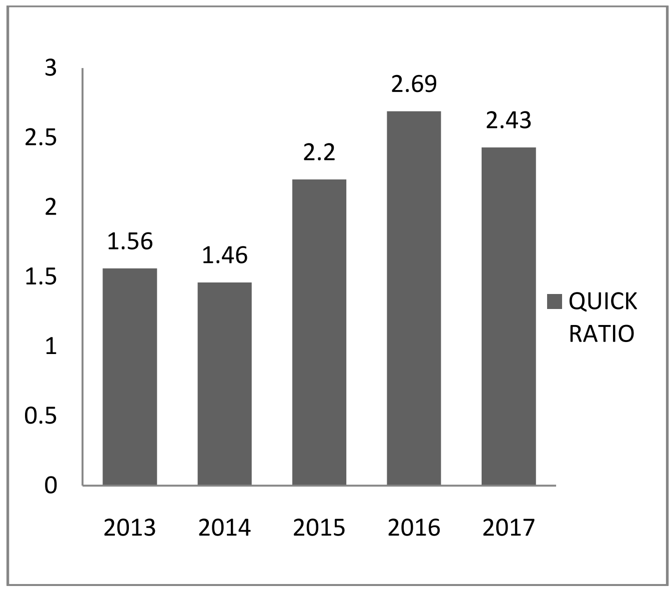
QUICK RATIO

Quick Ratio= Quick Assets / Current Liabilities

TABLE 2

Year	Quick Assets	Current Liabilities	Quick Ratio
2013	118742202	75947887	1.56
2014	139461538	95744188	1.46
2015	209215020	95051145	2.20
2016	273841920	101894487	2.69
2017	271572420	111598842	2.43

CHART 2



INTERPRETATION:

The quick ratio expresses the relation between quick assets and current liabilities. The ideal quick ratio is 1:1. From the graph, the liquid ratio is above the standard in all the five years. The quick ratio of the company is high in the year 2016 compared to others due to increase in the current assets and decrease in the current liabilities

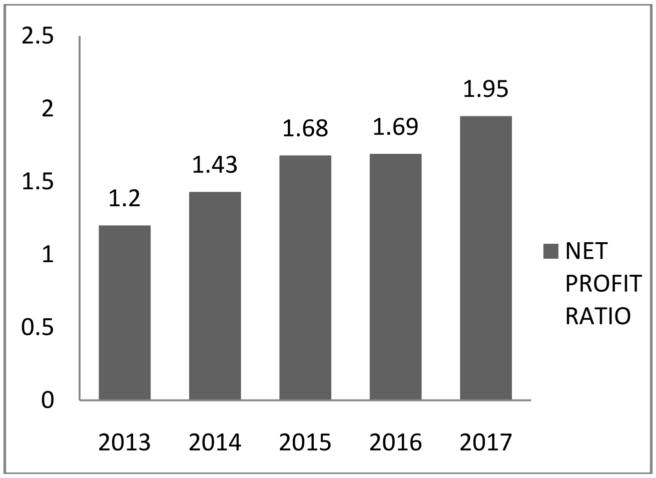
NET PROFIT RATIO

Net Profit Ratio= Net Profit / Net Sales * 100

TABLE 3

Year	Net Profit	Net Sales	Net Profit Ratio (in percentage)
2013	36285915	3016835382	1.20
2014	60231643	4226547321	1.43
2015	73300262	4341628541	1.68
2016	76298649	4515526414	1.69
2017	93348971	4797863148	1.95

CHART 3



This ratio indicates the firm's capacity to stand in the adverse economic conditions. From the above graph the net profit ratio is increasing from 2013 to 2017 due to increase the net sales and net profit. An observation of this ratio indicates that the overall efficiency of the business is satisfactory and better is profitability. This means higher returns to shareholders.

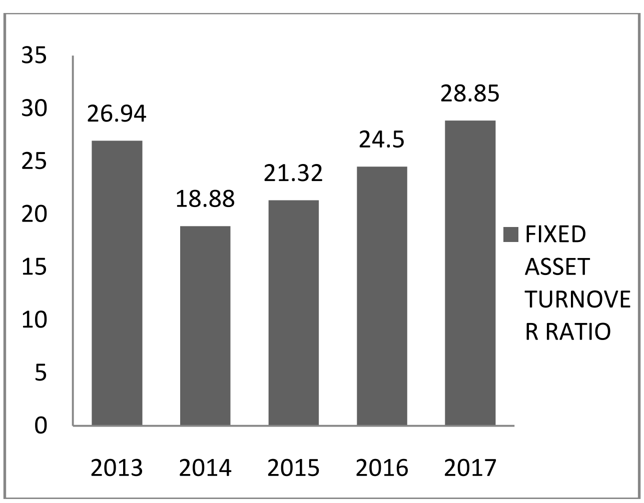
FIXED ASSET TURNOVER RATIO

Fixed asset turnover ratio= Net sales / Net Fixed Assets

TABLE 4

Year	Net Sales	Net Fixed Assets	Fixed Asset Turnover Ratio
2013	3016835382	112000433	26.94
2014	4226547321	223865452	18.88
2015	4341628541	203622313	21.32
2016	4515526414	184238667	24.50
2017	4797863148	166312278	28.85

CHART 4



INTERPRETATION:

The above graph is shown the fixed asset turnover ratio. From the year 2014 to 2017 the ratio shows increasing trend. This indicates that there is efficient utilization of fixed assets. The fixed asset turnover ratio is decrease in the year 2014. In the year 2017 it increased upto 28.85

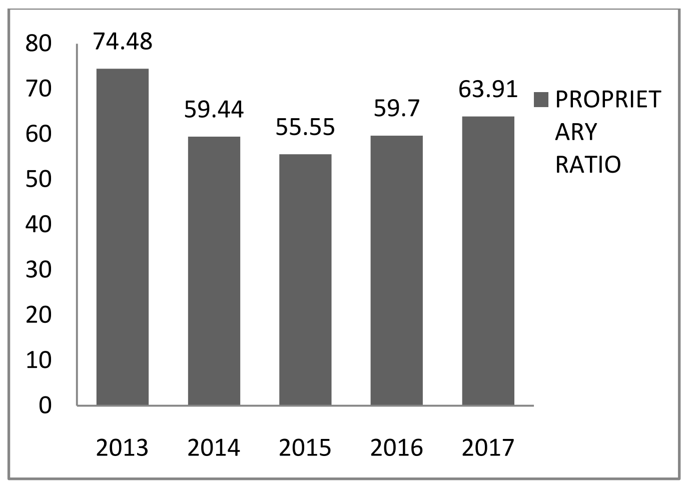
PROPRIETARY RATIO

Proprietary Ratio= Shareholders Fund / Total Asset *100

TABLE 5

Year	Shareholder's Fund	Total Assets	Proprietary Ratio
2013	291524308	391433753	74.48
2014	325325306	547314622	59.44
2015	352920560	635236016	55.55
2016	408188289	683619358	59.70
2017	433021168	677474642	63.91

CHART 5



INTERPRETATION:

A ratio of 0.5:1 or above is considered ideal. From the above graph, it can be clearly identify that the company has high proprietary ratio. It indicates safety to the creditors and the firm is less dependent on creditors for its working capital. It indicates a sound financial position of the company.

SOLVENCY RATIO

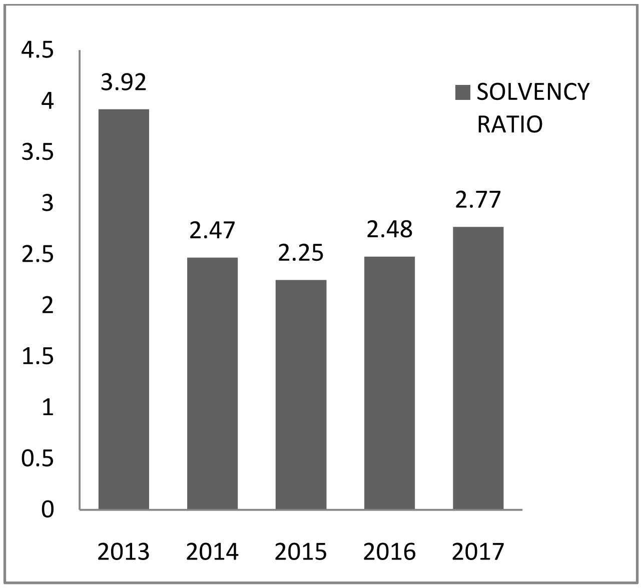
Solvency Ratio= Total Assets / Total debt

TABLE 6

Year	Total Assets	Total debt	Solvency Ratio
2013	391433753	99909445	3.92
2014	547314622	221989316	2.47

2015	635236016	282315456	2.25
2016	683619358	275431069	2.48
2017	677474642	244453474	2.77

CHART 6



INTERPRETATION:

The solvency ratio indicates the degree of solvency of a business. From the above graph, solvency ratio is decreased in 2015. It indicates that the company solvency position is decreased. But in 2017, solvency ratio is increased as compared to 2015. It indicates that the solvency and financial position are strong and the firm has an ability to pay outsiders fund

COMPARATIVE BALANCE SHEET 2013-2017

TABLE 7

Particulars	**Years**		**Increase/ Decrease**	**Percentage**
	2013	2017		
Liabilities:				
Capital	60000000	120000000	60000000	100
Reserves & surplus	231524308	313021168	81496860	35.2
Loans & Borrowings	23961558	132854632	108893074	454.4
Current Liabilities & Provisions:				
Sundry creditors/payables	62034827	82156478	20121651	32.43
Other Liabilities	2805925	1942364	-863561	-30.77
Provision for income tax	11107135	27500000	16392865	147.58
Total	**391433753**	**677474642**	**286040889**	**73.07**
Assets:				
Fixed Assets	112000433	166312278	54311845	48.49
Investments in shares	5579148	5579148	0	0
Advance and deposits	12836622	22154365	9317743	72.58
Advance income tax	35000000	40000000	5000000	14.28
Tax deducted at source	120428			
Current assets, Loans & advance:				
Closing stock	107154920	171856431	64701511	60.38
Sundry debtors	102272270	239821929	137549659	134.4
Interest receivable	3323263	3838312	515049	15.49
Finance charge pending adj	92380	75631	-16749	-18.13
Kuri discount pending adj	32163	0	-32163	-100
Cash & bank	13022126	27836548	14814422	113.76
Total	**391433753**	**677474642**	**286040889**	**73.07**

INTERPRETATION:

In the above comparative balance sheet the current liabilities have an increase in the year 2017 because the sundry creditors and loans are increased. The loans and borrowings have high increase during the year 2017 compared to 2013. There is a high increase in total assets during the year 2017 compared to 2013 due to the increase in cash and bank. The reserves and surplus of the firm shows an increasing trend. It indicates that the firm try to maintain their reserves and surplus in a good level. This shows that the company has increased its fund by not issuing further shares and utilize the reserves and surplus for the payment of dividend

COMMON SIZE BALANCE SHEET 2013-2017

TABLE 8

Particular	2013		2017	
	Amount	Percentage	Amount	Percentage
Liabilities				
Capital	60000000	15.33	120000000	17.71
Reserves & Surplus	231524308	59.2	313021168	46.20
Loans & borrowings	23961558	6.12	132854632	19.61
Current liabilities :				
Sundry creditors/payables	62034827	15.85	82156478	12.13

Other liabilities	2805925	0.71	1942364	0.29
Provision for income tax	11107135	2.84	27500000	4.06
Total liabilities	**391433753**	**100**	**677474642**	**100**
Assets:				
Fixed assets	112000433	28.6	166312278	24.55
Investments in shares	5579148	1.43	5579148	0.82
Advance & deposits	12836622	3.28	22154365	3.27
Advance income tax	35000000	8.941	40000000	5.90
Tax deducted at source	120428	0.031		
Current assets:				
Closing stock	107154920	27.4	171856431	25.4
Sundry debtors	102272270	26.13	239821929	35.39
Interest receivable	3323263	0.85	3838312	0.56
Finance charge pending adj.	92380	0.024	75631	0.011
Kuri discount pending adj	32163	0.008	0	0
Cash & bank	13022126	3.33	27836548	4.10
Total assets	**391433753**	**100**	**677474642**	**100**

INTERPRETATION:

The common size balance sheet reveals that, the proportion of current liability during the year 2017 was lower compare to the previous year. It is mainly due to the company reducing to take the short term borrowings because they tries to maintain adequate working capital

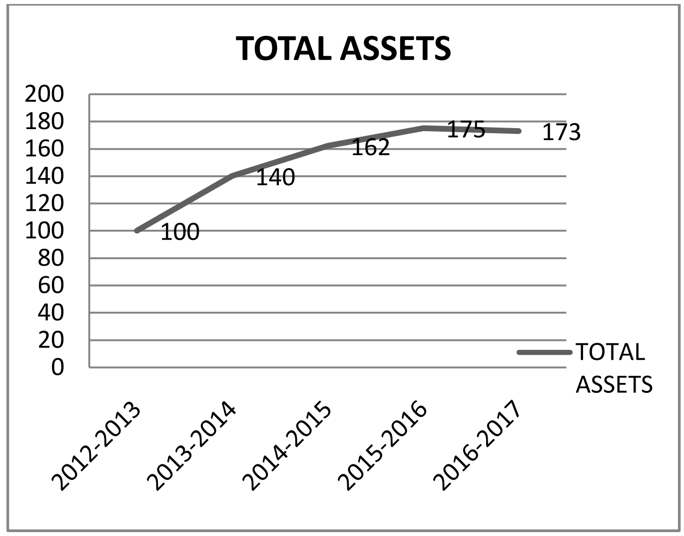
VI. TREND ANALYSIS

TOTAL ASSETS

TABLE 9

Year	Total Assets	Trend Percentage (Base year 2012-2013)
2012-2013	391433753	100
2013-2014	547314622	140
2014-2015	635236016	162
2015-2016	683619358	175
2016-2017	677474642	173

CHART 9



INTERPRETATION:

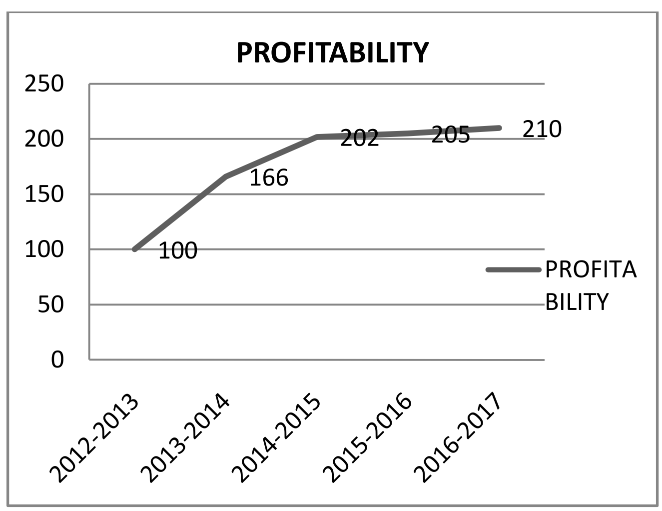
From the above graph we can see that the total asset of the firm is in an increasing trend. It is good for the firm. But there is a slightly decrease during the year 2017 comparing to 2016 due to high investments in the fixed assets.

PROFITABILITY

TABLE10

Year	Net Profit Amount in Rs.	Trend Percentage (Base year 2013)
2012-2013	36285915	100
2013-2014	60231643	166
2014-2015	73300262	202
2015-2016	76298649	205
2016-2017	93348971	210

CHART 10



INTERPRETATION:

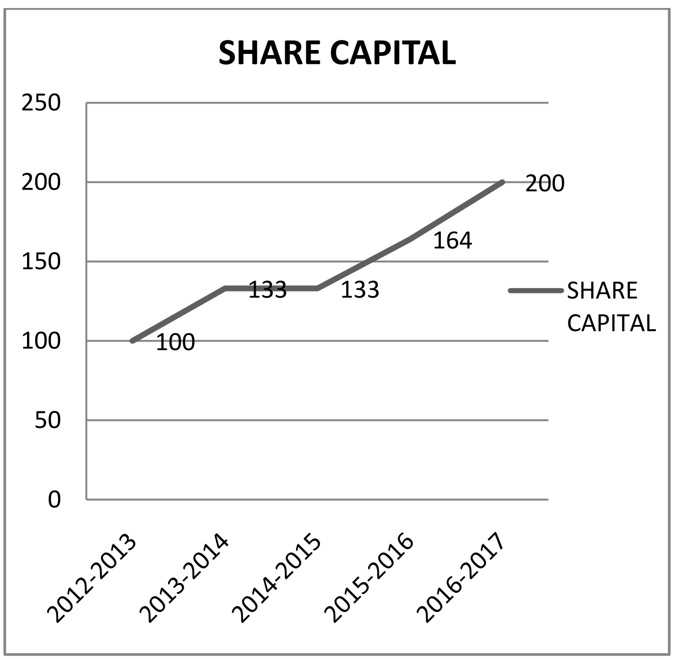
From the above graph we can see that the profitability of the firm is increasing from 2013 to 2017 due to increase the net sales and net profit. It is good for the firm. It indicates that the overall efficiency of the business is satisfactory and better is profitability. This means higher returns to shareholders. The company has keeping a large portion of its earning for growth in future

CAPITAL

TABLE 11

Year	Amount in Rs.	Trend Percentage (Base year 2012-2013)
2012-2013	60000000	100
2013-2014	80000000	133
2014-2015	80000000	133
2015-2016	98200000	164
2016-2017	120000000	200

CHART 11



INTERPRETATION:

The above graph shows that the capital of the firm. From the year2013 to 2017 the capital is in increasing trend. It means more shares and bonds are issued by the firm for raising the capital. The capital is same during the years2014 to 2015.

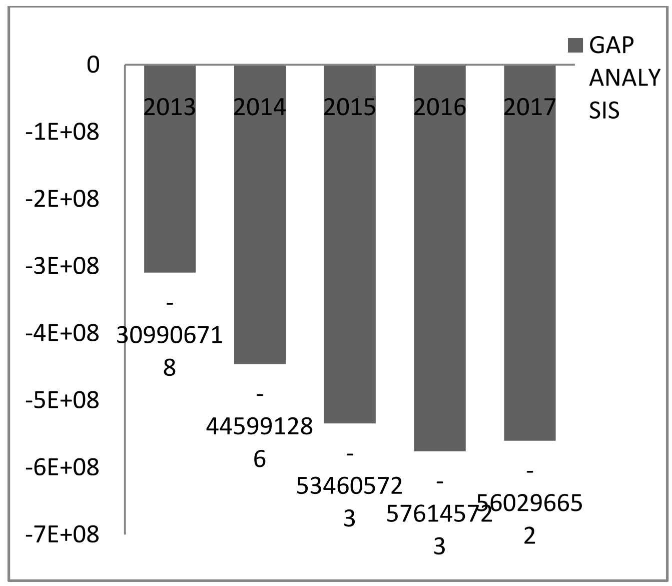
GAP ANALYSIS

GAP= RSA-RSL

TABLE 12

Year	RSA	RSL	GAP
2013	5579148	315485866	-309906718
2014	5579148	451570434	-445991286
2015	5579148	540184871	-534605723
2016	5579148	581724871	-576145723
2017	5579148	565875800	-560296652

CHART 18



INTERPRETATION:

The above graph shows the gap analysis of the company. Here gap is negative due to the rate sensitive assets are less than the rate sensitive liabilities. And this gap has increased year by year, which is not a good sign for the company. In this analysis the rate sensitive asset i.e. investment in shares are same in all the years. In all the years the rate sensitive liabilities such as capital, reserves & surplus and loans & borrowings are higher than the investment in shares i.e. rate sensitive asset.

VII. FINDINGS

- The current ratio is above the standard in all the five years. Its current assets are more than its current liabilities which is beneficial to the short term creditors.
- The ideal quick ratio is 1:1. The quick ratio is above the standard in all the five years. Company is maintaining a good cash position.
- The net profit ratio is increasing from 2013 to 2017 due to increase the net sales and net profit. An observation of this ratio indicates that the overall efficiency of the business is satisfactory and better is profitability

- The proprietary ratio of Star PVC pipes and fittings (P) ltd is increasing. The company has enough to capital to repay its creditors.
- The solvency ratio shows an increasing trend every year which is good for firm to pay off its long term debts
- It is found out that the total asset of the firm is in an increasing trend. It is good for the firm. But there is a slightly decrease during the year 2017 comparing to 2016 due to high investments in the fixed assets
- The study observes that the share capital is in increasing trend. It means more shares and bonds are issued by the firm for raising the capital
- From the analysis it has been found out that profitability is an increasing trend due to increase the net sales and net profit. It is good for the firm. It indicates that the overall efficiency of the business is satisfactory and better is profitability.
- Comparative balance sheet shows an increasing trend in both current assets and current liability from the year 2013 to 2017 except in the year 2017. The reserves and surplus of the firm shows an increasing or decreasing trend.
- Common size balance sheet also shows an increasing trend in both assets and liabilities.
- Gap analysis reveals that, here gap is negative and this gap has increased year by year, which is not a good sign for the company

VIII. SUGGESTIONS

- Current liability of the firm is increasing which is not a good sign. It should control it by reducing the sundry creditors and other liabilities, because liability is not a good thing for a firm.
- The company can improve the volume of sales by providing credit facilities to its dealers and customers. The company should make efficient utilization of current assets which will enable the firm to increase the sales level
- The liquidity position of the concern can be improved by reducing the inventory or the physical stock
- The gap of rate sensitive assets and rate sensitive liabilities is negative. Interest rate risk is minimized if the gap is managed to near zero for each period. The gap is managed by increase the investment in shares.
- A high debt equity ratio indicates higher proportion of debt content in the capital structure. Here the company have lower debt equity ratio so the company should try to maintain the loans and borrowings.

XI. CONCLUSION

This study was conducted for STAR PVC Pipes and Fittings (P) Ltd, Thrissur to study the asset and liability management of the firm. The study provided an insight in to the different aspects of asset and liability management of the organization. The objectives are to analyze and understand the asset and liability position of Star PVC Pipes and Fittings (P) Ltd, Thrissur. The objectives are achieved by using the tools such as trend analysis, ratio analysis and some graphs and diagrams are also used to make the data understandable to all. The secondary data forms the basis of analysis. Balance sheet and profit &loss account are used as the secondary sources. Asset Liability Management is a systematic approach that attempts to provide a degree of protection to the risk arising out of the asset/ liability mismatch. Through effective liquidity management helps to avoid deficiency in liquidity.

BIBLIOGRAPHY

JOURNALS

[1]. Salvin Surjith FP,N. Sathyanarayana (2004)3, studied that asset and liability management in ICICI bank
[2]. Mr. Chetan Shetty, Ms. Pooja Patel, Ms. Nandini (2016)6, an Analysis of Private Banks Exposure to Asset Liability Management
[3]. P. Sheela, Tejaswini Bastray (2015)8, studied that Asset-Liability-Management– a Comparative Study of a Public and Private Sector Bank

BOOKS

[4]. C.R Kothari; Research Methodology; New Age International Publishers, New Delhi, 2nd Edition 1999.
[5]. M.Y Khan- P.K Jain; Management Accounting; Tata Mc Graw-Hill Publishing co. Ltd, 3rd Edition.
[6]. R.K. Sharma and Shashi k. Gupta; Management Accounting Principles and Practice; Kalyani Publishers.
[7]. S.N. Maheshwari; Financial Management; Sultan Chand and Sons Educational Publishers, New Delhi; 11th Edition 2006.
[8]. I.M. Pandey; Financial Management; Vikas Publishing House Pvt Ltd, New Delhi, 9th Edition (2004- 2007).
[9]. B.L. Gupta; Management of Liquidity and Profitability; Arihant Publishing House, Jaipur.

REPORTS

[10]. Reports of Star PVC Pipes and Fittings (P) Limited, Thrissur from 2012-13 to 2016-17

WEBSITES

[11]. https://Wikipedia.com
[12]. www.Shodhganga.com
[13]. https://Investopedia.com
[14]. www.assetliabitymanaement.com
[15]. www.Ask.com
[16]. https://www.scribd.com