

A STUDY ON THE EFFECTIVENESS OF ASSET AND LIABILITY MANAGEMENT IN FINANCIAL PERFORMANCE OF DR. AGARWAL'S HEALTHCARE LTD

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

by

KARTHIKEYAN.D

Register No.41410165



SCHOOL OF MANAGEMENT STUDIES

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119

MAY 2023



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **KARTHIKEYAN.D 41410165** who carried out the project entitled "**A study on the effectiveness of asset and liability management in financial performance of Dr. Agarwal's Healthcare Ltd**" under my supervision from January 2023 to March 2023.

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DECLARATION

I **KARTHIKEYAN.D (41410165)** hereby declare that the Project Report entitled “**A study on the effectiveness of asset and liability management in financial performance of Dr. Agarwal’s Healthcare Ltd**” done by me under the guidance of **DR. YASMEEN BANO** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE: 06/05/2023



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LIST OF CONTENTS

CHAPTER	PARTICULARS	PAGE NO
	ABSTARACT	(i)
	LIST OF TABLES	(ii)
	LIST OF CHARTS	(iii)
1	1.1 INTRODUCTION	1
	1.2 INDUSTRY PROFILE	5
	1.3 COMPANY PROFILE	9
	1.4 IDENTIFIED PROBLEM	11
	1.5 NEED FOR THE STUDY	11
	1.6 OBJECTIVES OF THE STUDY	12
	1.7 SCOPE OF THE STUDY	12
	1.8 LIMITATIONS OF THE STUDY	13
2	2.1 REVIEW OF LITERATURE	14
3	3.1 TYPES OF RESEARCH	22
	3.2 METHOD OF DATA COLLECTION	22
	3.3 TOLLS FOR DATA COLLECTION	22
	3.4 TOOLS FOR ANALYSIS	22
4	DATA ANALYSIS AND INTERPRETATION	27
5	5.1 FINDINGS	52
	5.2 SUGGESTIONS	53

	5.3 CONCLUSION	54
	REFERENCE	55
	ANNEXURE	56
	ARTICLE	57

ABSTRACT

Every business whether big, medium or small, needs finance to carry on its operations and to achieve its target. In fact, finance is so indispensable today that it's rightly said to be the lifeblood of an enterprise. Without adequate finance, no enterprise can possibly accomplish its objectives. So this project deals with studying various aspects of Asset & Liability management that is necessary to carry out the day-today operations. This project deals with the study about "Asset & Liability Management" in **Dr. Agarwal's Healthcare Ltd.**

In the management of Asset & Liability, the firm is faced by two key problems: First, given the level of sales and the relevant cost considerations, what are the optimal amounts of cash, accounts receivable and inventories that a firm should choose to maintain. Second, given these optimal amounts, what is the most economical way to finance these Asset & Liability investments. To produce the best possible results, firms should keep no unproductive assets and should finance with the cheapest available sources of funds. Why? In general, is quit advantageous for the firm to invest in short term assets and to finance short-term liabilities.

The scope of the study is identified after and during the study is conducted. The main scope of the study was to put into practical the theoretical aspect of the study into real life work experience. The study of Asset & Liability is based on tools like Ratio Analysis, Statement of changes in Asset & Liability. Further the study is based on last5 years Annual Reports of Dr. Agarwal's Healthcare Ltd.

LIST OF TABLES

SL.NO	PARTICULARS	PAGE NO
4.1	CURRENT RATIO ANALYSIS	27
4.2	QUICK RATIO ANALYSIS	28
4.3	ABSOLUTE LIQUIDITY RATIO ANALYSIS	30
4.4	INVENTORY TURNOVER RATIO	31
4.5	INVENTORY HOLDING PERIOD	32
4.6	DEBTORS TURNOVER RATIO	33
4.7	DEBTORS COLLECTION PERIOD	34
4.8	CREDITORS TURNOVER RATIO	35
4.9	CREDITORS PAYMENT PERIOD	36
4.10	ASSET & LIABILITY TURNOVER RATIO	37
4.11	NET OPERATING CYCLE	38
4.12	SCHEDULE OF CHANGES IN ASSET & LIABILITY 2018-2019	40
4.13	SCHEDULE OF CHANGES IN ASSET & LIABILITY 2019-2020	41
4.14	SCHEDULE OF CHANGES IN ASSET & LIABILITY 2020-2021	42
4.15	SCHEDULE OF CHANGES IN ASSET & LIABILITY 2021-2022	43

4.16	TREND ANALYSIS- NET ASSET & LIABILITY	44
4.17	TREND ANALYSIS- NET SALES	46
4.18	TREND ANALYSIS- CURRENT ASSETS	48
4.19	TREND ANALYSIS- CURRENT LIABILITIES	50

LIST OF CHARTS

SL.NO	PARTICULARS	PAGE NO
1	CURRENT RATIO ANALYSIS	28
2	QUICK RATIO ANALYSIS	29
3	ABSOLUTE LIQUIDITY RATIO ANALYSIS	30
4	INVENTORY TURNOVER RATIO	31
5	INVENTORY HOLDING PERIOD	32
6	DEBTORS TURNOVER RATIO	33
7	DEBTORS COLLECTION PERIOD	34
8	CREDITORS TURNOVER RATIO	35
9	CREDITORS PAYMENT PERIOD	36
10	ASSET & LIABILITY TURNOVER RATIO	37
11	NET OPERATING CYCLE	39
12	TREND ANALYSIS- NET ASSET & LIABILITY	45
13	TREND ANALYSIS- NET SALES	47
14	TREND ANALYSIS- CURRENT ASSETS	49
15	TREND ANALYSIS- CURRENT LIABILITIES	51

CHAPTER 1

Introduction

Asset & Liability is a critical factor in the sustainability and viability of any business. Many firms are forced to cease trading due to an inability to meet short-term obligations when they are due. To remain in business, it is essential that a firm successfully manage its Asset & Liability. Proper management of Asset & Liability helps to improve a firm's liquidity position and financial health and reduces risk.

In this course, you will be introduced to the concept of Asset & Liability and Asset & Liability management. The course will examine the need for Asset & Liability management and identify key factors that will have an impact on the size of the Asset & Liability requirement. This course will also cover the financial planning concepts to estimate Asset & Liability requirement. Finally, this course will describe some of the key strategies that can be used for financing Asset & Liability.

The management and control of Asset & Liability is of vital importance to companies and forms a major workload function of the finance manager and accountant. By Asset & Liability, the commonly accepted descriptive term for these resources, we mean the company's investment in short-term assets; traditionally these relate to items coming under the balance-sheet heading of current assets (in practice, of course, all capital is working, whether invested in fixed or current assets). Thus inventories (stocks), accounts receivable (debtors), short-term investments and cash balances all come within the term Asset & Liability. (The words in brackets represent alternative descriptions of the asset; throughout this book these terms are used synonymously.) Apart from the efficient operation and control of these assets, the finance manager will also be concerned with their financing. In this the finance manager will be faced with numerous alternative sources, both short-term and long-term. Short-term financing is generally shown under the heading of current liabilities and includes items such as bank overdrafts and credit received from suppliers. The efficient financing of current assets by short-term liabilities also comes within the scope of working-capital management and is therefore included in the text.

In reading the book the following terms will be found useful:

Asset & Liability - a general term gross

Asset & Liability- total current assets

net Asset & Liability - current assets minus current liabilities

This is the generally accepted terminology although some text books adopt different definitions. A frequently used description of Asset & Liability is 'circulating capital' or 'circulating assets'; this description follows from the short-term cash cycle of the firm which is described later. This terminology can be confusing, however, as in the long term all assets are involved in the cash cycle. Because of this, the description 'circulating assets' is not used.

Component Items

Net Asset & Liability consists of current assets minus current liabilities. Current assets are those which are used in the selling operation of the business and which are held for short periods of time. Sometimes they are defined as those that are expected to be converted into cash within one year and this, in fact, covers virtually all the items. Many firms have assets which they intend to keep for the long term although they are in an easily realizable form such as investments. Although these are not termed current assets they can be utilized in Asset & Liability management as they can often be easily converted into cash. The major component items of current assets are set out below.

(a) Inventories or stocks. These are the materials, commodities or goods that the firm has at any moment in time and which are expected to be used in the firm's production process or be sold in the form of a finished product in the normal day-to-day operations of the business. Inventories include raw materials, bought-in components, finished goods, and products part-way through a manufacturing process (known as work in progress).

(b) Debtors or accounts receivable. These are short-term debts owed to the company. In the case of manufacturing and commercial firms debts receivable generally represent credit taken by their sales customers.

(c) Prepayments or expenses paid in advance. These represent expenses that have been paid for but for which the goods or service have not yet been received.

(d) Short-term investments. When a firm has short-term surplus cash, this is often invested in securities on which a rate of return is expected, either in the form of interest received or capital appreciation; these amounts may be certain (i.e. local-authority deposits) or uncertain (equity shares). If a company decides to invest for the long-term then the investment will not be shown in current assets and its management will be kept separate.

OBJECTIVES

- Meet day-to-day cash flow needs;
- Pay wages and salaries when they fall due;
- Pay creditors to ensure continued supplies of goods and services;
- Pay government taxation and providers of capital at dividends; and
- Ensure the long- term survival of the business entity

Nature and Scope of Asset & Liability

Asset & Liability Management is concerned with the problems that arise in attempting to manage the Current Assets, the Current Liabilities and the inter-relationship that exists between them. The term Current Assets refers to those Assets which in the ordinary course of business can be, or will be, converted into Cash within one year without undergoing a diminution in value and without disrupting the operations of the firm. The Major Current Assets are Cash, Marketable Securities, Accounts Receivables and Inventory. Current Liabilities are those Liabilities, which are intended at their inception, to be paid in the ordinary course of business, within a year out of the current assets or the earnings of the concern. The basic Current Liabilities are Accounts Payable, Bills Payable, Bank Overdraft and outstanding expense.

The goal of Asset & Liability Management is to manage the firm's Assets and Liabilities in such a way that a satisfactory level of Asset & Liability is maintained.

This is so because if the firm cannot maintain a satisfactory level of Asset & Liability, it is likely to become insolvent and may even be forced into bankruptcy. The Current Assets should be large enough to cover its current liabilities in order to ensure a reasonable margin of safety. Each of the current assets must be managed efficiently in order to maintain the liquidity of the firm while not keeping too high a level of any one of them. Each of the short-term sources of financing must be continuously managed to ensure that they are obtained and used in the best possible way.

The interaction between current assets and current liabilities is, therefore, the main theme of the theory of management of Asset & Liability.

1.2 INDUSTRY PROFILE

Healthcare has become one of India's largest sectors - both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players.

Indian healthcare delivery system is categorized into two major components - public and private. The Government, i.e. public healthcare system comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of primary healthcare centers (PHCs) in rural areas. The private sector provides majority of secondary, tertiary and quaternary care institutions with a major concentration in metros, tier I and tier II cities.

India's competitive advantage lies in its large pool of well-trained medical professionals. India is also cost competitive compared to its peers in Asia and Western countries. The cost of surgery in India is about one-tenth of that in the US or Western Europe.

Market Size

Deloitte Touche Tohmatsu India has predicted that with increased digital adoption, the Indian healthcare market, which is worth around US\$ 100 billion, will likely grow at a CAGR of 23 per cent to US\$ 280 billion by 2020. The healthcare market can increase three fold to US\$ 372 billion by 2022.

India is experiencing 22-25 per cent growth in medical tourism and the industry is expected to double its size from present (April 2017) US\$ 3 billion to US\$ 6 billion by 2018. Medical tourist arrivals in India increased more than 50 per cent to 200,000 in 2016 from 130,000 in 2015.

The Healthcare Information Technology (IT) market is valued at US\$ 1 billion currently (April 2016) and is expected to grow 1.5 times by 2020. #

Over 80 per cent of the antiretroviral drugs used globally to combat AIDS (Acquired Immuno Deficiency Syndrome) are supplied by Indian pharmaceutical firms^.

There is a significant scope for enhancing healthcare services considering that healthcare spending as a percentage of Gross Domestic Product (GDP) is rising. Rural India, which accounts for over 70 per cent of the population, is set to emerge as a potential demand source.

A total of 3,598 hospitals and 25,723 dispensaries across the country offer AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy) treatment, thus ensuring availability of alternative medicine and treatment to the people. In 2017, the Government of India has provided grant-in-aid for setting up of AYUSH educational institutions in States and Union Territories.

Investment

The hospital and diagnostic centers attracted Foreign Direct Investment (FDI) worth US\$ 4.83 billion between April 2000 and September 2017, according to data released by the Department of Industrial Policy and Promotion (DIPP). Some of the recent investments in the Indian healthcare industry are as follows:

- India and Cuba have signed a Memorandum of Understanding (MoU) to increase cooperation in the areas of health and medicine, according to Ministry of Health and Family Welfare, Government of India.
- Singapore's Temasek will acquire a 16 per cent stake worth Rs 1,000 crore (US\$ 156.16 million) in Bengaluru based private healthcare network Manipal Hospitals, which runs a hospital chain of around 5,000 beds.

Government Initiatives

Some of the major initiatives taken by the Government of India to promote Indian healthcare industry are as follows:

- India's first ever 'Air Dispensary', which is based in a helicopter, will be launched in the Northeast and the Ministry of Development of Northeast Region (DONER) has already contributed Rs 25 crore (US\$ 3.82 million) for its funding.
- The Intensified Mission Indra Dhanush (IMI) has been launched by the Government of India with the aim of improving coverage of immunization in the country and reach every child under two years of age and all the pregnant women who have not been part of the routine immunization program.
- Ministry of Health and Family Welfare is planning to spend more funds, over and above the current sanction of Rs 955 crore (US\$ 148.22 million), to tackle lifestyle diseases such as cardiovascular disease (CVD), hypertension, obesity and diabetes in India.
- The Union Cabinet approved setting up of National Nutrition Mission (NNM) with a three year budget of Rs 9,046.17 crore (US\$ 1.40 billion) to monitor, supervise, fix targets and guide the nutrition related interventions across the Ministries.
- The Government of India aims to increase the total health expenditure to 2.5 per cent of Gross Domestic Product (GDP) by 2025 from the current 1.15 per cent.
- Mr J P Nadda, Union Minister of Health and Family Welfare, Government of India, launched initiatives such as La Qshya, for Labour Room Quality Improvement, a mobile application for safe delivery, and operational guidelines for obstetric high dependency units (HDUs) and intensive care units (ICUs).

Road Ahead

India is a land full of opportunities for players in the medical devices industry. India's healthcare industry is one of the fastest growing sectors and in the coming 10 years it is expected to reach \$275 billion. The country has also become one of the leading destinations for high-end diagnostic services with tremendous capital investment for advanced diagnostic facilities, thus catering to a greater proportion of population. Besides, Indian medical service consumers have become more conscious towards their healthcare upkeep.

Indian healthcare sector is much diversified and is full of opportunities in every segment which includes providers, payers and medical technology. With the increase in the competition, businesses are looking to explore for the latest dynamics and trends which will have positive impact on their business.

India's competitive advantage also lies in the increased success rate of Indian companies in getting Abbreviated New Drug Application (ANDA) approvals. India also offers vast opportunities in R&D as well as medical tourism. To sum up, there are vast opportunities for investment in healthcare infrastructure in both urban and rural India.

1.3 COMPANY PROFILE

Dr. Agarwal's Health Care Limited is an unlisted public company incorporated on 19 April, 2010. It is classified as a public limited company and is located in Chennai, Tamil Nadu. Its authorized share capital is INR 90.00cr and the total paid-up capital is INR 7.93cr.

Dr. Agarwal's Health Care Limited's operating revenues range is INR 100Cr – 500Cr for the financial year ending on 31 March, 2022. Its EBITDA has increased by 194.25 % over the previous year. At the same time, its book net worth has increased by 0.03 %.

Description: This company provides health care services. It offers eye care facilities.

Products & Services: cataract, glaucoma, retina, paediatric ophthalmology, cornea, refractive, and other related services

Category: Service Provider

The current status of Dr. Agarwal's Health Care Limited is - Active.

The last reported AGM (Annual General Meeting) of Dr. Agarwal's Health Care Limited, per our records, was held on 30 September, 2022. Also, as per our records, its last balance sheet was prepared for the period ending on 31 March, 2022.

Dr. Agarwal's Health Care Limited has eight directors - Shiv Agrawal, Amar Agarwal, and others.

The Corporate Identification Number (CIN) of Dr. Agarwal's Health Care Limited is U85100TN2010PLC075403. The registered office of Dr. Agarwal's Health Care Limited is at 1st Floor, Buhari Towers, No.4, Moores Road, Off Greaves Road, Near Asan Memorial School, Chennai, Chennai, Tamil Nadu.

Financial Overview:

Here is a summary of financial information of DR. AGARWAL'S HEALTH CARE LIMITED for the financial year ending on 31 March, 2022.

Revenue / turnover of DR. AGARWAL'S HEALTH CARE LIMITED is INR 100cr - 500cr.

- Net worth of the company has increased by 0.03 %
- EBITDA of the company has increased by 194.25 %
- Total assets of the company has increased by 8.53 %
- Liabilities of the company has increased by 52.80 %

Directors Overview:

The company has 8 directors and 3 reported key management personnel. The longest serving director currently on board is Anosh Agarwal who was appointed on 30 January, 2014. Anosh Agarwal has been on the board for more than 9 years. The most recently appointed directors are Ankur Nand Thadani and Ved Prakash Kalanoria, who were appointed on 05 May, 2022.

Ankur Nand Thadani has the largest number of other directorships with a seat at a total of 15 companies. In total, the company is connected to 40 other companies through its directors.



1.4 IDENTIFIED PROBLEM

This project deals with the study about “Asset & Liability Management” in **Dr. Agarwal’s Healthcare Ltd.**

In the management of Asset & Liability, the firm is faced by two key problems:

1. First, given the level of sales and the relevant cost considerations, what are the optimal amounts of cash, accounts receivable and inventories that a firm should choose to maintain?
2. Second, given these optimal amounts, what is the most economical way to finance these Asset & Liability investments? To produce the best possible results, firms should keep no unproductive assets and should finance with the cheapest available sources of funds. Why? In general, is quit advantageous for the firm to invest in short term assets and to finance short-term liabilities.

1.5 NEED FOR THE STUDY

- This study has undergone by the researcher for fulfilling the research gap and also for the management requirements.
- The management wants to know whether the annual Asset & Liability requirement has gone increase or decrease if the report produces a negative result then what will do reduce the Asset & Liability so this study needed now.

1.6 OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE

To study the effectiveness of Asset and liability management in Financial performance of Dr. Agarwal's Healthcare Ltd

SECONDARY OBJECTIVES:

- To Know a sources and uses of the Asset & Liability.
- To Examine the liquidity position through various Asset & Liability related ratios.
- To study the Asset & Liability components such as receivables accounts, cash management, Inventory management.
- To make suggestions based on the finding of the study.

1.7 SCOPE OF THE STUDY

Asset and liability management is a practice used by financial Performance to mitigate financial risks resulting from a mismatch of assets and liabilities. By strategically matching of assets and liabilities, financial performances can achieve greater efficiency and profitability while also reducing risk. The main scope of the study was to put into practical the theoretical aspect of the study into real life work experience. The study of Asset & Liability is based on tools like Ratio Analysis, Statement of changes in Asset & Liability. Further the study is based on last5 years Annual Reports of Dr. Agarwal's Healthcare Ltd.

1.8 LIMITATIONS OF THE STUDY

- The study duration is short.
- The analysis is limited to five years of data study (from year 2018 to year 2022) for financial analysis.
- Limited interaction with the concerned heads due to their busy schedule.
- The findings of the study are based on the information retrieved by the selected unit.

CHAPTER 2

2.1 REVIEW OF LITERATURE

Many previous researches have indicated the relations between the Asset & Liability management and profitability of a company in different environments

Krishnamurthy's study (2000) was aggregative and dealt with inventories in the private sector of the Indian economy as a whole for the period 1948-61, this study used sales to represent demand for the product and suggested the importance of accelerator. Short-term rate of interest has also been found to be significant.

According to Herzfeld B2(2003) Asset & Liability management refers to the management of current or short-term assets and short-term liabilities. The purpose of that function is to make certain that the company has enough assets to operate s business. Here are things you should know about Asset & Liability management.

Garcia-Teruel and Martinez-Solano (2002) collected a panel of 8,872 small to medium-sized enterprises (SMEs) from Spain covering the period 2002-2003. They tested the effects of Asset & Liability management on SME profitability using the panel data methodology. The results, which are robust to the presence of endogeneity, demonstrated that managers could create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.

Maynard E. Refuse (2002), argued that attempts to improve Asset & Liability by delaying payment to creditors is counter-productive to individuals and to the economy as a whole. Claims that altering debtor and creditor levels for individual tiers within a value system will rarely produce any net benefits. Proposes that stock reduction generates system-wide financial improvements and other important benefits.

Shin and soenen (2006) used a sample of 58,985 firm's years covering the period 1975-1994 in order to investigate the relation between net-trade cycle that was used to measure the efficiency of Asset & Liability management and corporate profitability. In all cases, they found a strong negative relation between the length of the firm's net-trade cycle and s profitability.

According to Eljelly (2003) the relationship between the firm's profitability and s liquidity level, as measured by current ration. This relationship is more pronounced for firms with high current ratios and long cash conversion cycles. At the industry level, however, he found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The firm size variable was found to have significant effect on profitability at the industry level.

Deloof (2004) investigated the relation between Asset & Liability management and corporate profitability for a sample of 1,009 large Belgian non-financial firms for the period 1992-2002. The result from analysis showed that there was a negative gap between profitability that was measured by gross operating income and cash conversion cycle well number of day's accounts receivable and inventories. Less profitable firms waed longer to pay their bills.

According to Gass (2007), studied "cash is the lifeblood of business" is an often repeated maximum among financial managers. Asset & Liability management refers to the management of current or short-term assets include inventories, loans and advances, debtors, investments and cash and bank balances. Short-term liabilities include creditors, trade advances, borrowings, and provisions. The major emphasis is, however, on short-term assets, since short term liabilities arise in the context of shorts-term assets. is important that companies minimize risk by prudent Asset & Liability management.

Lazaridis and tryfonidis (2007) have investigated the relation between Asset & Liability Management and corporate profitability of listed company in the Athens stock exchange. A sample of 131 listed companies for period of 2002-2005 was used to examine this relationship. The result from regression analysis indicated that there was a statistical significance between profitability, measured through gross operating profit, and the cash conversion cycle. From those results, they claimed that the managers could create value for shareholders by handling correctly the cash conversion cycle and keeping each different component to an optimum level.

Raheman and Nasr (2016) have selected a sample of 94 Pakistani firms listed on Karachi stock exchange for a period of 6 years from 1999-2005 to study the effect of different variables of Asset & Liability management on the net operating profitability. From result of study, they showed that there was a negative relation between variables of Asset & Liability management including the average collection period, inventory turnover in days, cash conversion cycle and profitability. Besides, they also indicated that size of the firm, measured by natural logarhm of sales, and profitability had a positive relationship.

Garcia-Teruel and Martinez-Solano (2016) studied the effects of Asset & Liability management on the profitability of a sample of 8.872 small and medium-sized enterprises (SMEs) from spin covering the period 2002-2003. They found that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.

Chakra borty (2017) evaluated the relationship between Asset & Liability and profitability of Indian pharmaceutical companies. He pointed out that there were two distinct schools of thought on this issue: according to one school of thought, Asset & Liability is not a factor of improving profitability and there may be a negative relationship between them, while according to the other school of thought, investment in Asset & Liability plays a vital role to improve corporate profitability, and unless there is a minimum level of investment of Asset & Liability, output and sales cannot be maintained- in fact, the inadequacy of Asset & Liability would keep fixed asset inoperative.

Singh and pandey (2017) had an attempt to study the Asset & Liability components and the impact of Asset & Liability management on profitability of Hindalco Industries Limited for period from 1990 to 2016. Results of the study showed that current ratio, liquid ratio, receivables turnover ratio and Asset & Liability to total assets ratio had statistically significant impact on the profitability of Hindalco Industries Limited.

According to Dr. Debdasraks and Chanchal Chatterjee, “Asset & Liability management”, gam journal of management, vol.6, no.4, oct-dec 2017, page. No 129-138. In the arena of increased globalize economy, maximizing shareholders, value and hereby creating value for the company is considered to be the central objective of business firms. The study explains that the management of Asset & Liability can facilitate a company in realizing its objective of value creation in the area of value based-management.

According to Beneda, Nancy; Zhang, Yilei (2017), the Asset & Liability management on the operating performance and growth of new public companies. The study also sheds light on the relationship of Asset & Liability with debt level, firm risk, and industry. Using a sample of initial public offering (IPOs), the study finds a significant positive association between higher levels of accounts receivable and operating performance. The study further finds that maintaining control (i.e. lower amounts) over levels of cash and securities, inventory, fixed assets, and accounts.

According to Dubey (2017), the Asset & Liability in a firm generally arises out of four basic factors like sales volume, technological changes, seasonal, cyclical changes and policies of the firm. The strength of the firm is dependent on the Asset & Liability as discussed earlier but this Asset & Liability is self dependent on the level of sales volume of firm. The firm requires current assets to support and maintain operational or functional activities. By current assets we mean the assets which can be converted readily into cash say within a year such as receivables, inventories and liquid cash.

Afza and Nazir(2018) made an attempt in order to investigate the traditional relations between Asset & Liability management policies and a firm's profitability for a sample of 204 non-financial firms listed on Karachi Stock Exchange (KSE) for the period 1998-2006. The study found significant different among their Asset & Liability requirements and financing policies across different industries. Moreover, regression result found a negative relationship between the profitability of firms and degree of aggressiveness of Asset & Liability investment and financing policies.

According to Amarj gill, Nahum Biger, Neil Mathur (2019) paper seeks to extend Lazaridis and Try fonidis' findings regarding the relation between Asset & Liability management and profitability. A sample of 88 American firms listed on New York Stock Exchange for a period of 3 years from 2006 to 2016 was selected. They found statistically significant relation between the cash conversion cycle and profitability, measured through gross operating profit.

Mohammad Neab and Noriza BMS (2017) worked on crating the relationship between Asset & Liability Management (WCM) and performance of firms. For their analysis they chose the Malaysian listed companies. They administered the perspective of market valuation and profitability. They used total of 172 listed companies from the databases of Bloomberg. They randomly selected five year data (2004-2008). This research likewise the researches quoted before studied the impact of the dimensions of Asset & Liability component i.e. C.C.C., current ratio (C.R.), current asset to total asset ratio (C.A.T.A.R), current liabilities to total asset ratio (C.L.T.A.R.), and debt to asset ratio (D.T.A.R.) in effect to the firm's performance whereby firm's value dimension was taken as Tobin Q (T.Q.) and profitability i.e. return on asset (R.O.A.) and return on invested capital (R.O.I.C). They applied two different techniques for analyzing the data that are multiple regression and correlations. They found that there is a negative relationship between Asset & Liability variables and the firm's performance.

Dong (2017) reported that the firms' profitability and liquidity are affected by Asset & Liability management in his analysis. Pooled data are selected for carrying out the research for the era of 2007-2009 for assessing the companies listed in stock market of Vietnam. He focused on the variables that include profitability, conversion cycle and its related elements and the relationship that exists between them. From his research it was found that the relationships among these variables are strongly negative. This denote that decrease in the profitability occur due to increase in cash conversion cycle. It is also found that if the number of days of account receivable and inventories are diminished then the profitability will increase numbers of days of accounts receivable and inventories.

Saswata Chatterjee (2017) focused on the importance of the fixed and current assets in the successful running of any organization. It poses direct impacts on the profitability liquidity. There have been a phenomenon observed in the business that most of the companies increase the margin for the profits and losses because this act shrinks the size of Asset & Liability relative to sales. But if the companies want to increase or improve its liquidity, then it has to increase its Asset & Liability. In the response of this policy the organization has to lower down its sales and hence the profitability will be affected due to this action. For this purposes 30 United Kingdom based companies were selected which were listed in the London Stock exchange. The data were taken of three years 2007-2009. It analyzed the impact of the Asset & Liability on the profitability. The dimensions of Asset & Liability management included in this research which is quick ratios, current ratios C.C.C, average days of payment, Inventory turnover, and A.C.P (average collection period. on the net operating profitability of the UK companies.

Mathuva (2016) studied the impact of Asset & Liability management on the performance. He took almost 30 listed firms as a sample and all these companies were listed in Nairobi stock exchange and the data was taken from 1993 to 2009. There were certain findings of his research by analyzing the fixed effects regression models. Firstly, there is a negative relationship between the time when the cash is collected from the customers and the firm's productivity. This depicts, firms that are more profitable enjoys less time period for the collection of cash from the customers as compare to ones which are less profitable. Secondly, there is a positive relationship between the inventories when they were brought

in and the period to which they are sold and the firm's profitability. The interpretation comes out as that the firms or the organizations which take more time to keep the inventories it reduces the costs of the disruption in the process of production and usually the business losses as there is the insufficiency in the goods. This situation decreases the operating cost of the firm. The third assumption of the research was the association between the average payment period and profitability and found out to be positive. The more the time taken to disburse the creditors, the profitability will increase. In our present day economy, finance is defined as the provision of money at time when it is required. Every business whether big, medium or small, needs finance to carry on its operations and to achieve its target. In fact, finance is so indispensable today that it is rightly said to be the lifeblood of an enterprise. Without adequate finance, no enterprise can possibly accomplish its objectives. A firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations. Liquidity is a pre-condition to ensure that the firm is able to meet its short-term obligations and its continued flow can be guaranteed from a profitable venture. The importance of cash as an indicator of continuing financial health should not be surprising in view of its crucial role within the business. This requires that business must be run both efficiently and profitably. In the process, an asset-liability mismatch may occur which may increase firm's profitability in the short run but at a risk of its insolvency. On the other hand, too much focus on liquidity will be at the expense of profitability. Thus, the manager of a business entity is in a dilemma of achieving desired tradeoff between liquidity and profitability in order to maximize the value of a firm. Asset & Liability management deals with the most dynamic fields in finance, which needs constant interaction between finance and other functional managers. The finance manager acting alone cannot improve the Asset & Liability situation. In recent times a few case studies regarding management of Asset & Liability in selected companies have been in order to make in-depth analysis of the several experts of Asset & Liability management. The finding of such studies not only throws new lights on the technical loopholes of management activities of the concerned companies, but also helps the scholars and researchers to develop new ideas, techniques and methods for effective management of Asset & Liability. An effort has been made to make an in-depth study of Asset & Liability management with special reference to Hindustan Newsprint Limited, Kottayam.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology generally refers to the procedure carried out in any project on research study. Methodology gives clear picture of suitable clarification and sequence of the different stages of the study, as to arrive at a proper manifestation of the objective, and the scope.

Research design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

Research design can be thought of as the structure of research is the glue that holds all of the elements in a research project together. We often describe a design using a concise notation that enables us to summarize a complex design structure efficiently.

A research design appropriate for a particular research problem, usually involves the consideration of the following factors:

- The means of obtaining information.
- The availability and skills of the researcher and his staff.
- The objective of the problem to be studied.
- The nature of the problem to be studied.
- The availability of time and money for the research work.

3.1 TYPES OF RESEARCH

Analytical research

In analytical research, on the other hand, the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.

3.2 METHOD OF DATA COLLECTION

Secondary data

The secondary data are those which have already collected and stored. Secondary data easily get those secondary data from records, annual reports of the company etc. will save the time, money and efforts to collect the data.

The major source of data for this project was collected through annual reports, profit and loss account of 5year period from 2018.

3.3 TOOLS FOR DATA COLLECTION

SAMPLING DESIGN

Sampling Unit : Financial Statements.
Sampling Size : Last five years financial statements.
Tool Used for calculations : MS-Excel.

3.4 TOOLS FOR ANALYSIS

- Ratio analysis
- Trend Analysis

3.4.1 RATIO ANALYSIS

Financial ratios are useful indicators of a firm's performance and financial situation. Most ratios can be calculated from information provided by the financial statements. Financial ratio can be used to analyze trends and to compare the firm's financials to those of other firms. In some cases, ratio analysis can predict future bankruptcy. Financial ratios can be classified according to the information they provide. The following types of ratios frequently are used:

Current Ratio

Liquidity ratios provide information about a firm's ability to meet its short-term financial obligations. They are of particular interest to those extending short-term credit to the firm. Two frequently-used liquidity ratios are the current ratio (or Asset & Liability ratio) and the quick ratio.

The current ratio is the ratio of current assets to current liabilities:

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Short-term creditors prefer a high current ratio since it reduces their risk. Shareholders may prefer a lower current ratio so that more of the firm's assets are working to grow the business. Typical values for the current ratio in order to remain solvent during downturns.

Quick Ratio

One drawback of the current ratio is that inventory may include many items that are difficult to liquidate quickly and that have uncertain value in the current assets. The quick ratio is defined as follows:

$$\text{Quick Ratio} = \frac{\text{Quick asset}}{\text{Current liabilities}}$$

The current assets used in the quick ratio are cash, accounts receivable, and notes receivable. These assets essentially are current assets less inventory. The quick ratio often is referred to as the acid test.

Cash Ratio

Finally, the cash ratio is the most conservative liquidity ratio. It excludes all current assets except the most liquid: cash and cash equivalents. The cash ratio is defined as follows:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Marketable Securities}}{\text{Current liabilities}}$$

The cash ratio is an indication of the firm's ability to pay off its current liabilities if for some reason immediate payment were demanded.

Inventory Turnover Ratio

Inventory turnover ratio is the ratio, which indicates the number of times the stock is turned over i.e., sold during the year. This measures the efficiency of the sales and stock levels of a company. A high ratio means high sales, fast stock turnover and a low stock level. A low stock turnover ratio means the business is slowing down or with a high stock level.

$$\text{Inventory Turnover Ratio} = \frac{\text{Net Sales}}{\text{Closing Inventory}}$$

Debtors Turnover Ratio

Debtor's turnover ratio indicates the speed of debt collection of the firm. This ratio computes the number of times debtors (receivables) has been turned over during the particular period.

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Debtors}}$$

Creditors Turnover Ratio

Creditor's turnover ratio is the ratio, which indicates the number of times the debts are paid in the year. This ratio is calculated as follows.

$$\text{Creditors Turnover Ratio} = \frac{\text{Net Purchases}}{\text{Average Creditors}}$$

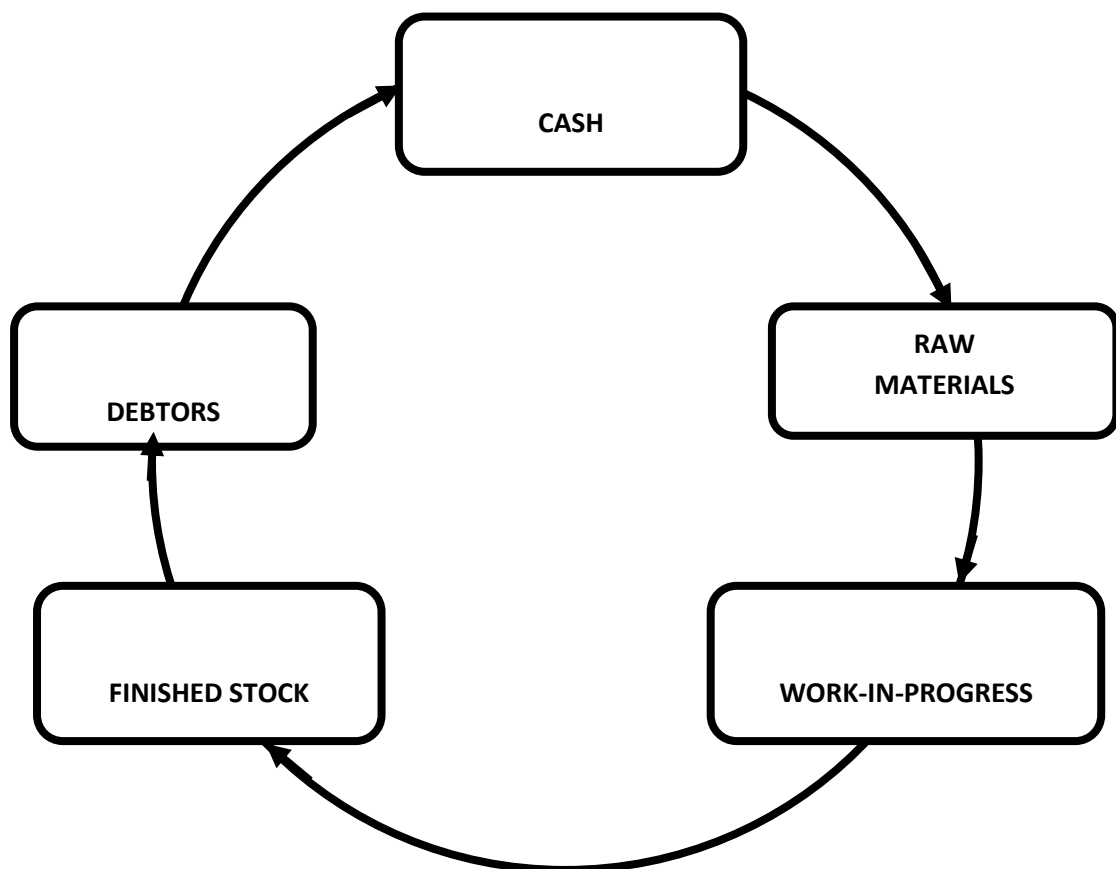
Asset & Liability Turnover Ratio

This ratio indicates the number of times the Asset & Liability is turned over in the course of the year. This ratio measures the efficiency with which the Asset & Liability is used by the firm. A higher ratio indicates efficient utilization of Asset & Liability and a low ratio indicates otherwise. But a very high Asset & Liability turnover is not a good situation for any firm.

$$\text{Asset \& Liability Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Asset \& Liability}}$$

3.4.2 OPERATING CYCLE OF ASSET & LIABILITY

The Asset & Liability cycle reserves to the length of time between the firm paying cash for materials etc., this Asset & Liability also known as operating cycle. Asset & Liability cycle or operating cycle indicates the length or time between companies paying for materials entering into stock and receiving the cash from sales of finished goods. The operating cycle (Asset & Liability) consists of the following events.



- Conversion of cash into raw materials.
- Conversion of raw materials into work in progress.
- Conversion of work in progress into finished stock.
- Conversion of finished stock into accounts receivables (Debtors) through sale and
- Conversion of account receivables into cash.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

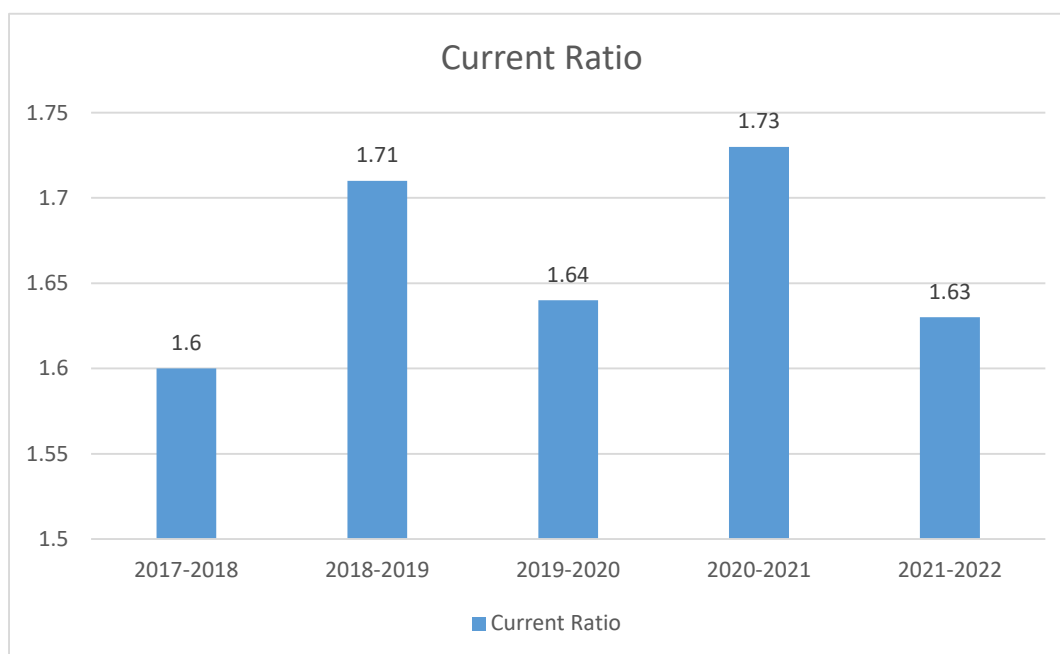
CURRENT RATIO

Table 4.1 Current Ratio Analysis

Year	Current Assets	Current liabilities	Current Ratio
2017-2018	505.46	315.33	1.60
2018-2019	571.17	334.19	1.71
2019-2020	716.95	437.95	1.64
2020-2021	834.28	481.81	1.73
2021-2022	1,095.97	673.18	1.63

FORMULA:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$



Interpretation

Table 4.1 shows that the current ratio seems to be fluctuating between the year 2018 to 2022. The current ratio is high in the year 2021 and decreased in 2022 due to increase in current liabilities.

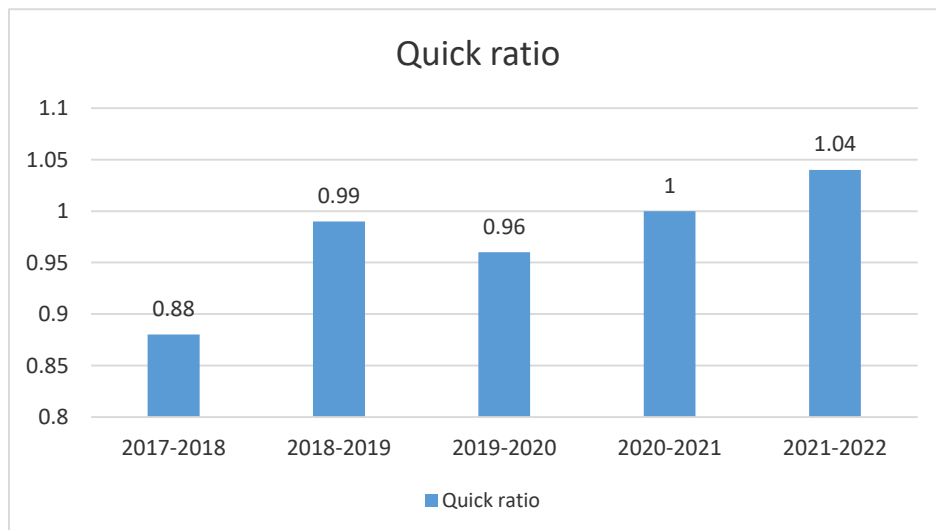
QUICK RATIO

Table 4.2 Quick Ratio Analysis

Year	Quick Asset	Quick liabilities	Ratio
2017-2018	276.57	315.33	0.88
2018-2019	330.54	334.19	0.99
2019-2020	421.41	437.95	0.96
2020-2021	479.84	481.81	1.00
2021-2022	699.67	673.18	1.04

FORMULA:

Quick Ratio = Quick Asset/Quick liabilities



Interpretation

Table 4.2 shows that the liquid ratio goes on increasing and reached a high mark of 1.04 in the year 2022, but the range is above the standard mark. Hence its liquidity position is adequate.

ABSOLUTE LIQUIDITY RATIO

Table 4.3 Absolute Liquidity Ratio Analysis

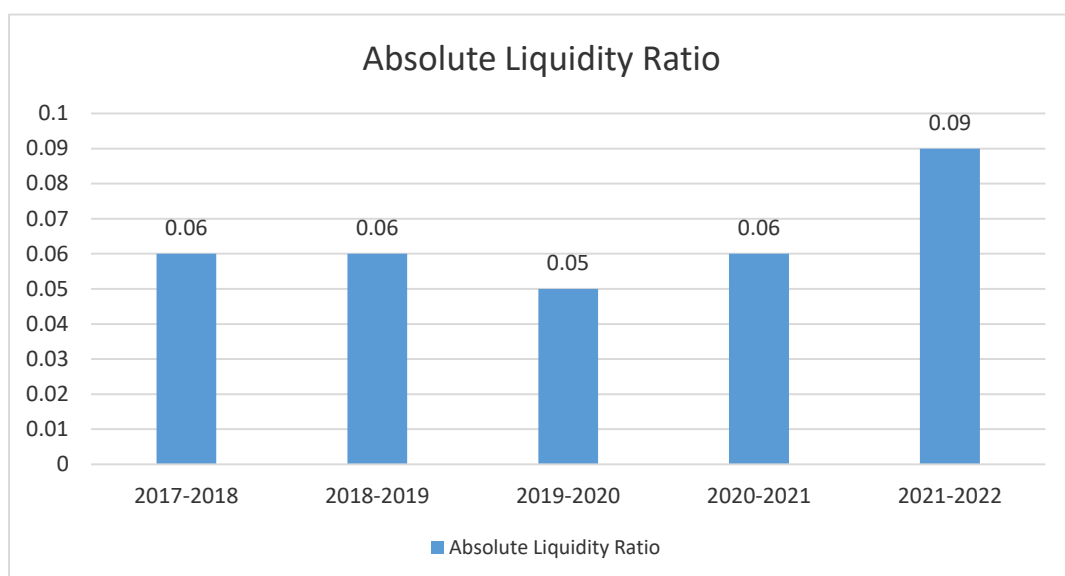
Years	Cash & Bank Balance	Current liabilities	Absolute Liquidity Ratio
2017-2018	18.8	315.33	0.06
2018-2019	19.94	334.19	0.06
2019-2020	22.83	437.95	0.05
2020-2021	27.32	481.81	0.06
2021-2022	61.81	673.18	0.09

FORMULA:

$$\text{Absolute Liquidity Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current liabilities}}$$

Interpretation

Table 4.3 shows the ratio goes on increasing and is always above the standard mark of 0.5. Hence is clear that the liquidity position of the company is satisfactory.



INVENTORY TURNOVER RATIO

Table 4.4 Inventory Turnover Ratio

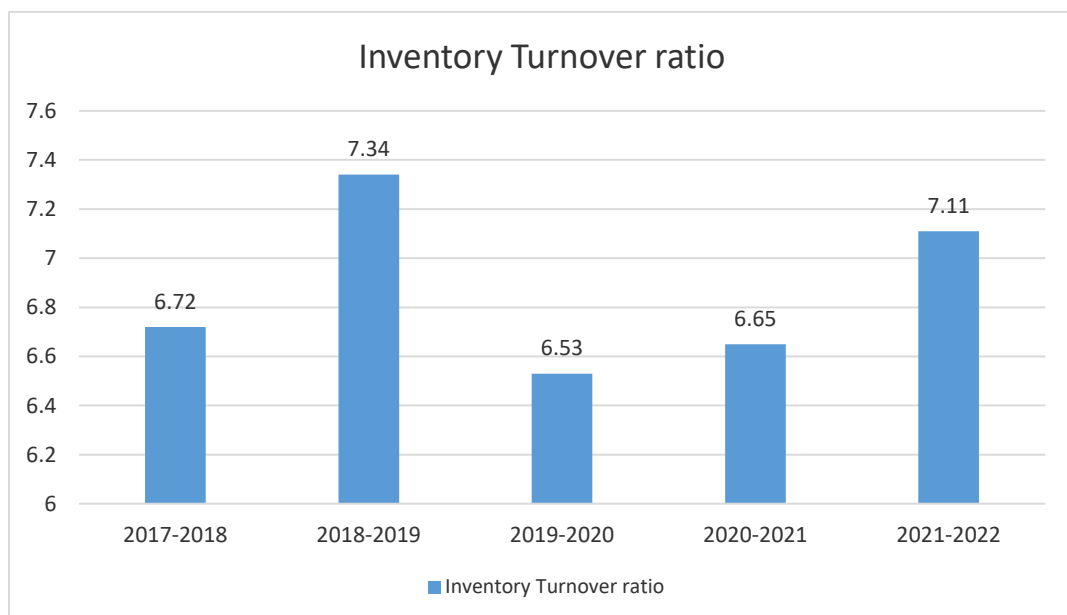
Year	Net Sales	Closing inventory	Inventory Turnover ratio
2017-2018	1,537.19	228.89	6.72 times
2018-2019	1,765.78	240.63	7.34 times
2019-2020	1,930.59	295.54	6.53 times
2020-2021	2,356.19	354.44	6.65 times
2021-2022	2,816.32	396.3	7.11 times

FORMULA:

$$\text{Inventory Turnover Ratio} = \frac{\text{Net Sales}}{\text{Closing Inventory}}$$

Interpretation

Table 4.4 reveals that the company's sales has increased subsequently after a fall in the year 2020.the company has shown higher sales rate in 2019 followed by 2022.



INVENTORY HOLDING PERIOD

Table 4.5 Inventory Holding Period

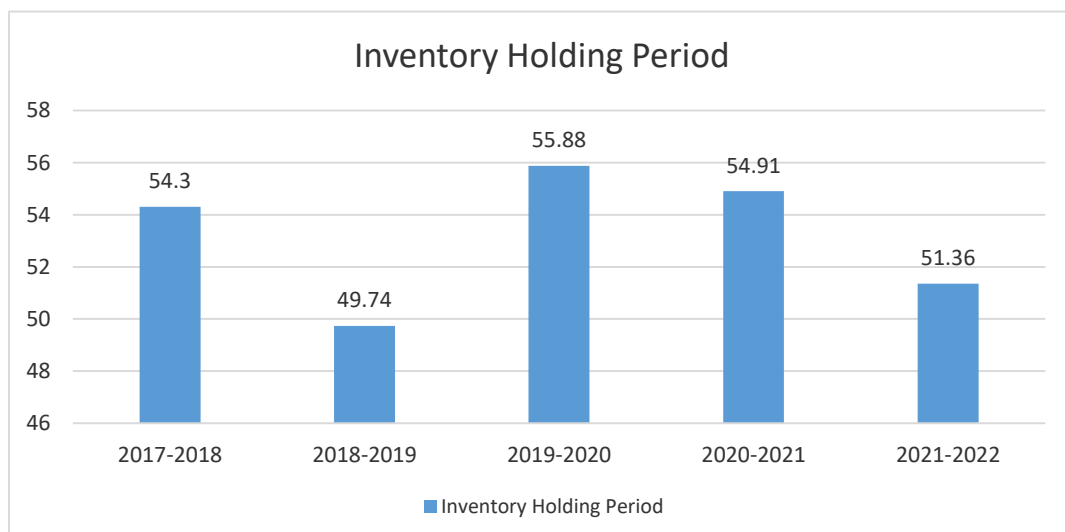
Year	Days in a Year	Inventory Turnover Ratio	Inventory Holding Period
2017-2018	365	6.72	54.30 days
2018-2019	365	7.34	49.74 days
2019-2020	365	6.53	55.88 days
2020-2021	365	6.65	54.91 days
2021-2022	365	7.11	51.36 days

FORMULA:

$$\text{Inventory Holding Period} = \frac{\text{Days in a year}}{\text{Inventory turnover ratio}}$$

Interpretation

Table 4.5 shows that the inventory holding period seems to be more fluctuating over the years. There was a decrease in 2018- 2019 and increase in 2019-2020. And the company managed to decrease the inventory holding period by increasing the sales by converting the raw materials to finished goods in a short period of time.



DEBTORS TURNOVER RATIO

Table 4.6 Debtors Turnover Ratio

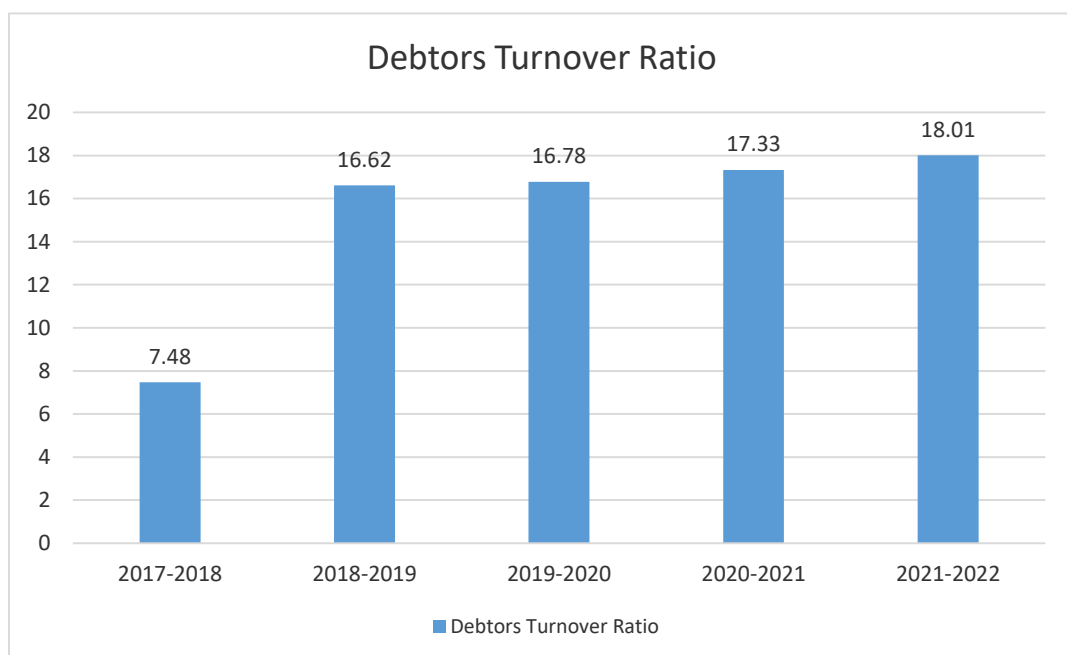
Year	Net Sales	Average Debtors	Debtors Turnover Ratio
2017-2018	1,537.19	205.55	7.48 times
2018-2019	1,765.78	106.26	16.62 times
2019-2020	1,930.59	115.03	16.78 times
2020-2021	2,356.19	135.95	17.33 times
2021-2022	2,816.32	156.36	18.01 times

FORMULA:

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Debtors}}$$

Interpretation

Table 4.6 shows that the debtor turnover ratio has increased gradually over the years. was 7.8 times in the year 2017-2018 and increased to 16.6 in the year 2018-2019. This shows that the company has managed to collect its debt rapidly.



DEBTORS COLLECTION PERIOD

Table 4.7 Debtors Collection Period

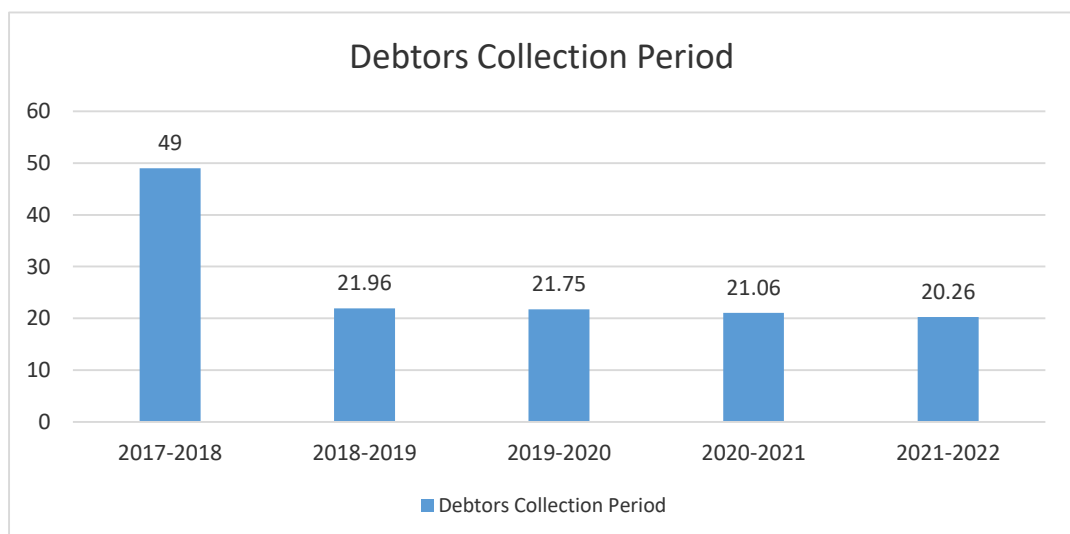
Year	Days in a Year	Debtors Turnover Ratio	Debtors Collection Period
2017-2018	365	7.48	49 days
2018-2019	365	16.62	21.96 days
2019-2020	365	16.78	21.75 days
2020-2021	365	17.33	21.06 days
2021-2022	365	18.01	20.26 days

FORMULA:

$$\text{Average Collection Period} = \frac{\text{Days in a Year}}{\text{Debtors Turnover Ratio}}$$

Interpretation

Table 4.7 shows that the company has managed to collect its debt at an average of 21.6 days. And the days seem to be decreasing since 2019 which shows the quality of the company in collecting the debts.



CREDITORS TURNOVER RATIO

Table 4.8 Creditors Turnover Ratio

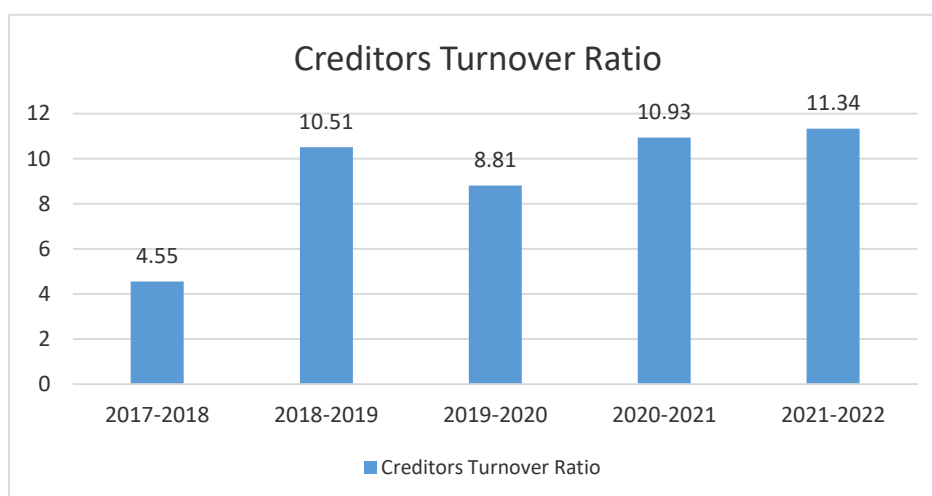
Year	Net Purchases	Average Creditors	Creditors Turnover Ratio
2017-2018	939.77	206.55	4.55 times
2018-2019	1,109.12	105.54	10.51 times
2019-2020	1,123.77	127.5	8.81 times
2020-2021	1,429.98	130.82	10.93 times
2021-2022	1,742.06	153.67	11.34 times

FORMULA:

$$\text{Creditors Turnover Ratio} = \text{Net Purchases} / \text{Average Creditors}$$

Interpretation

Table 4.8 shows how many times the company pays its debt in a year. The number of times is very low in the year 2017-2018 and increased in 2018-2019 and a decrease in 2019-2020 and a good improvement after 2019-2020 and a high rate of 11.34 times in 2021-2022.



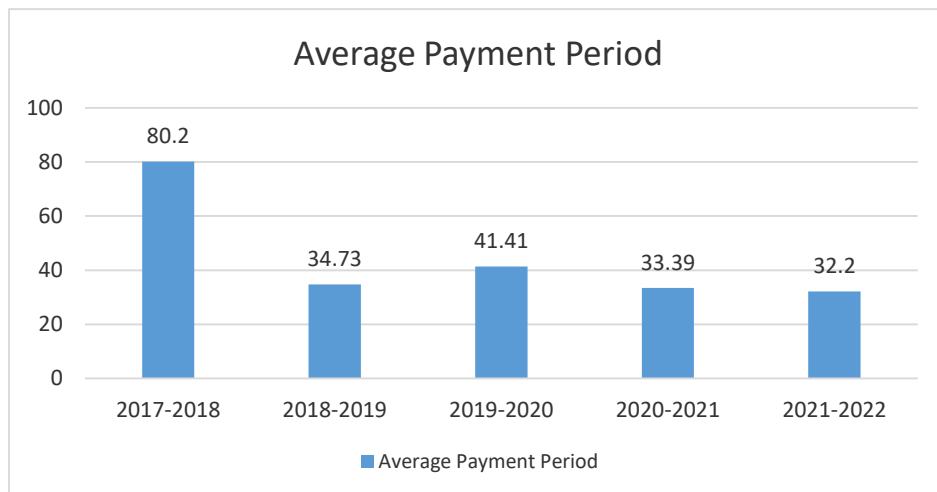
CREDITORS PAYMENT PERIOD

Table 4.9 Creditors Payment Period

Year	Days in a Year	Creditors Turnover Ratio	Average Payment Period
2017-2018	365	4.55	80.2 days
2018-2019	365	10.51	34.73 days
2019-2020	365	8.81	41.41 days
2020-2021	365	10.93	33.39 days
2021-2022	365	11.34	32.20 days

FORMULA:

$$\text{Average Payment Period} = \frac{\text{Days in a Year}}{\text{Creditors Turnover Ratio}}$$



Interpretation

Table 4.9 shows the average payment period has decrease due to increase in number of times the debt is paid in a year. In 2017 was 80.2 days and reduced to 34.73 days and again increased to 41.41 days and was 33.39 days later in 2022 was 32.20 days which is a good improvement in settling the debt.

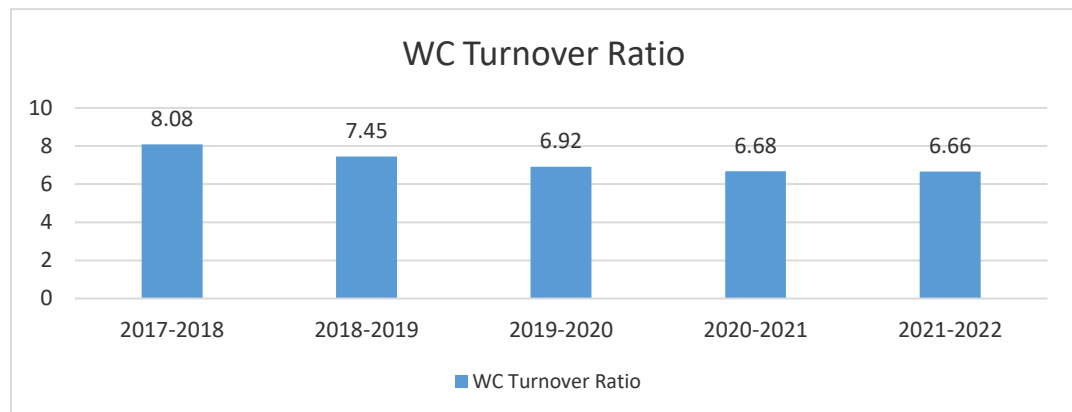
ASSET & LIABILITY TURNOVER RATIO

Table 4.10 Asset & Liability Turnover Ratio

Year	Net Sales	Net Asset & Liability	WCTR
2017-2018	1537.19	190.13	8.08 times
2018-2019	1765.78	236.98	7.45times
2019-2020	1930.59	279	6.92 times
2020-2021	2356.19	352.47	6.68 times
2021-2022	2816.32	422.77	6.66 times

FORMULA:

$$\text{Asset \& Liability Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Asset \& Liability}}$$



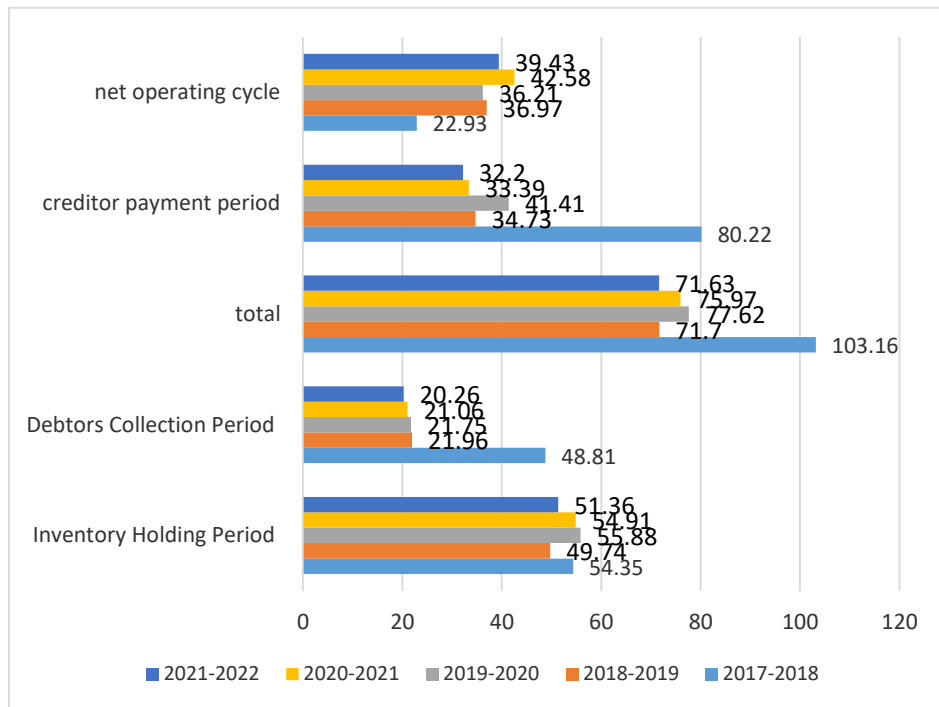
Interpretation

Table 4.10 shows how efficiently the company makes use of Asset & Liability. The ratio keeps decreasing since 2019. Was very high in 2017- 09 and decreases gradually. but keeps maintaining at an average rate of 6.8 times and does not seems very low. Hence the company seems to be in a good condition.

NET OPERATING CYCLE

Table 4.11 Net operating Cycle

Particulars	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Inventory Holding Period	54.35	49.74	55.88	54.91	51.36
Debtors Collection Period	48.81	21.96	21.75	21.06	20.26
Total	103.16	71.70	77.62	75.97	71.63
Creditor payment period	80.22	34.73	41.41	33.39	32.20
Net operating cycle	22.93 days	36.97 days	36.21days	42.58days	39.43days



Interpretation

Table 4.11 shows that the net operating cycle keeps fluctuating over the years. Shows the cash conversion period of the firm's maximum period is 42.58 days in the year 2020-2021 and again reduced to 39.43 days.

4.12 Schedule of changes in Asset & Liability 2018-2019

Particulars	As on 31-3- 2018	As on 31-3-2019	Increase	Decrease
CURRENT ASSETS				
Inventories	228.89	240.63	11.74	----
Sundry debtors	205.75	228.76	23.01	----
Cash & Bank balance	18.8	19.94	1.14	----
Loans and Advances	52.48	80.09	27.61	----
Other current assets	0.04	1.75	1.71	----
(A)Total Current Assets	505.96	571.17		
CURRENT LIABILITIES				
Sundry creditors	256.55	274.73	----	18.18
Provisions	58.78	59.46	----	0.68
(B)Total Current liabilities	315.33	334.19		
(A)-(B) Net Asset & Liability	190.63	236.98		
Increase in Asset & Liability	46.35	----	----	46.35
TOTAL	236.98	236.98	65.21	65.21

Inference

The net Asset & Liability has increased in the year 2019 from Rs.190.63 to Rs.236.98 lakhs due increase in current assets namely the inventory.

4.13 Schedule of changes in Asset & Liability 2019-2020

Particulars	As on 31-3- 2019	As on 31-3-2020	Increase	Decrease
CURRENT ASSETS				
Inventories	240.63	295.54	54.91	----
Sundry debtors	228.76	241.3	12.54	----
Cash & Bank balance	19.94	22.83	2.89	----
Loans and Advances	80.09	98.99	18.9	----
Other current assets	1.75	58.29	56.54	----
(A)Total Current Assets	571.17	716.95		----
CURRENT LIABILITIES				
Sundry creditors	274.73	340.27	----	65.54
Provisions	59.46	97.68	----	38.22
(B)Total Current liabilities	334.19	437.95		
(A)-(B) Net Asset & Liability	236.98	279		
Increase in Asset & Liability	42.02	-----	-----	42.02
TOTAL	279	279	145.78	145.78

Inference

The chart 4.13 shows that the net Asset & Liability has increased in the year 2020 when compared to the previous year due to high level of inventory.

4.14 Schedule of changes in Asset & Liability 2020-2021

Particulars	As on 31-3- 2021	As on 31-3-2020	Increase	Decrease
CURRENT ASSETS				
Inventories	295.54	354.44	58.9	----
Sundry debtors	241.3	286.59	45.29	----
Cash & Bank balance	22.83	27.32	4.49	----
Loans & Advances	98.99	100.04	1.05	----
Other current assets	58.29	65.89	7.6	----
(A)Total Current Assets	716.95	834.28		
CURRENT LIABILITIES				
Sundry creditors	340.27	363.39	----	23.12
Provisions	97.68	118.42	----	20.74
(B)Total Current liabilities	437.95	481.81		
(A)-(B) Net Asset & Liability	279	352.47		
Increase in Asset & Liability	73.47	----	----	73.47
TOTAL	352.47	352.47	117.33	117.33

Inference

Chart 4.14 shows that there is a slight increase in net Asset & Liability in the year 2021. This is due to increase in current liabilities especially the provisions.

4.15 Schedule of changes in Asset & Liability 2021-2022

Particulars	As on 31-3- 2021	As on 31-3-2022	Increase	Decrease
CURRENT ASSETS				
Inventories	354.44	396.3	41.86	----
Sundry debtors	286.59	326.12	39.53	----
Cash & Bank balance	27.32	61.81	34.49	----
Other current assets	65.89	195.97	130.08	----
Loans and Advances	100.04	115.77	15.73	----
(A)Total Current Assets	834.28	1095.97		
CURRENT LIABILITIES				
Sundry creditors	363.39	533.95	----	170.56
Provisions	118.42	139.25	----	20.81
(B)Total Current liabilities	481.81	673.2		
(A)-(B) Net Asset & Liability	352.47	422.77		
Increase in Asset & Liability	70.32	----	----	70.32
TOTAL	422.79	422.79	261.69	261.69

Interpretation

Chart 4.15 shows that there is a real increase of net Asset & Liability in the year 2022 because of increase in current assets and decrease in current liabilities.

TREND ANALYSIS

Trend analysis has a great advantage that it can also be used to predict the future events. This is possible by forecasting the future cash flow based on the data available of the past. With the help of trend analysis, you can predict the future and track the variances to add performance. $Y=a + b(x)$

4.16 TREND ANALYSIS –ASSET & LIABILITY

Year	Net Asset & Liability	x	X ²	X y	Y=a + b(x)
2017-2018	190.13	-2	4	-380.26	180.116
2018-2019	236.98	-1	1	-236.98	238.193
2019-2020	279	0	0	0	296.27
2020-2021	352.47	1	1	352.47	354.347
2021-2022	422.77	2	4	845.54	412.424
	Σ y = 1481.35		Σ x²=10	580.77	180.116

$$Y=a +b (x)$$

$$a = \Sigma y / n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a= 296.27$$

$$b= 58.077$$

For: 2022-2022

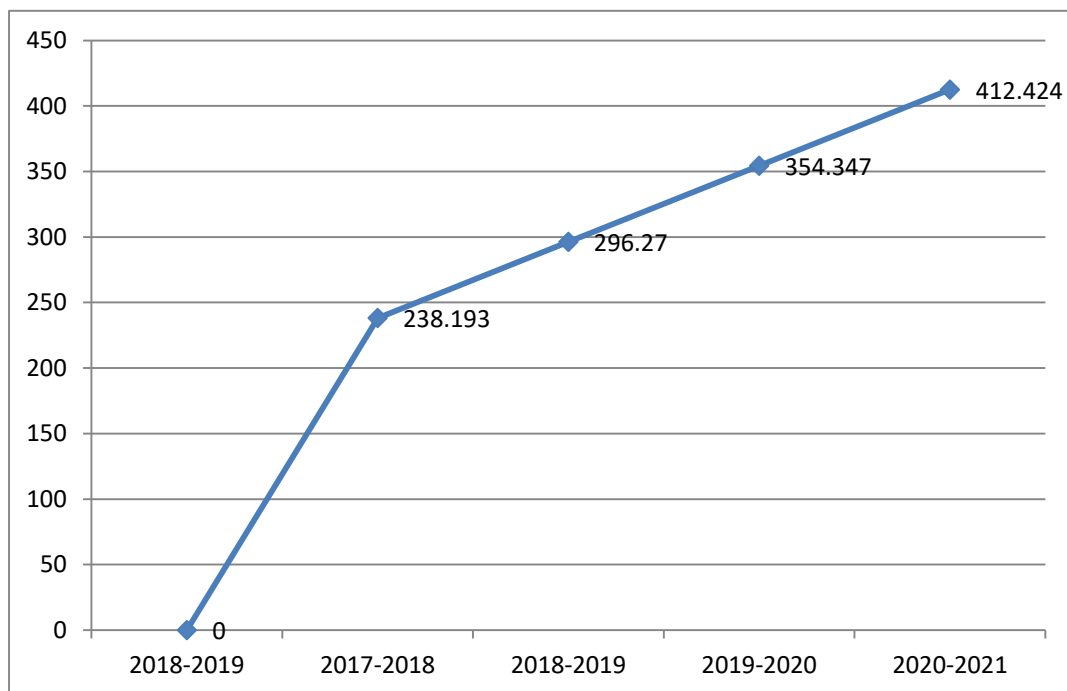
Let us assume $x=3$

$$Y = a + b(x)$$

$$Y = 296.27 + 58.077 \times 3$$

$$Y = 470.501$$

NET ASSET & LIABILITY



INTERPRETATION

The Net Asset & Liability is increasing at an increasing rate for all the five years. The company has the highest Net WC on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501.

4..17 TREND ANALYSIS –NET SALES

Year	Net Sales	x	X ²	X y	Y=a + b(x)
2017-2018	1,537.19	-2	4	-3074.38	1451.48
2018-2019	1,765.78	-1	1	-1765.78	1766.347
2019-2020	1,930.59	0	0	0	2081.214
2020-2021	2,356.19	1	1	2356.19	2396.081
2021-2022	2,816.32	2	4	5632.64	2710.948
	Σ=10406.07	0	10	3148.67	10406.07

$$Y=a +b (x)$$

$$a = \Sigma y /n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a= 2081.214$$

$$b= 314.867$$

For: 2022-2022

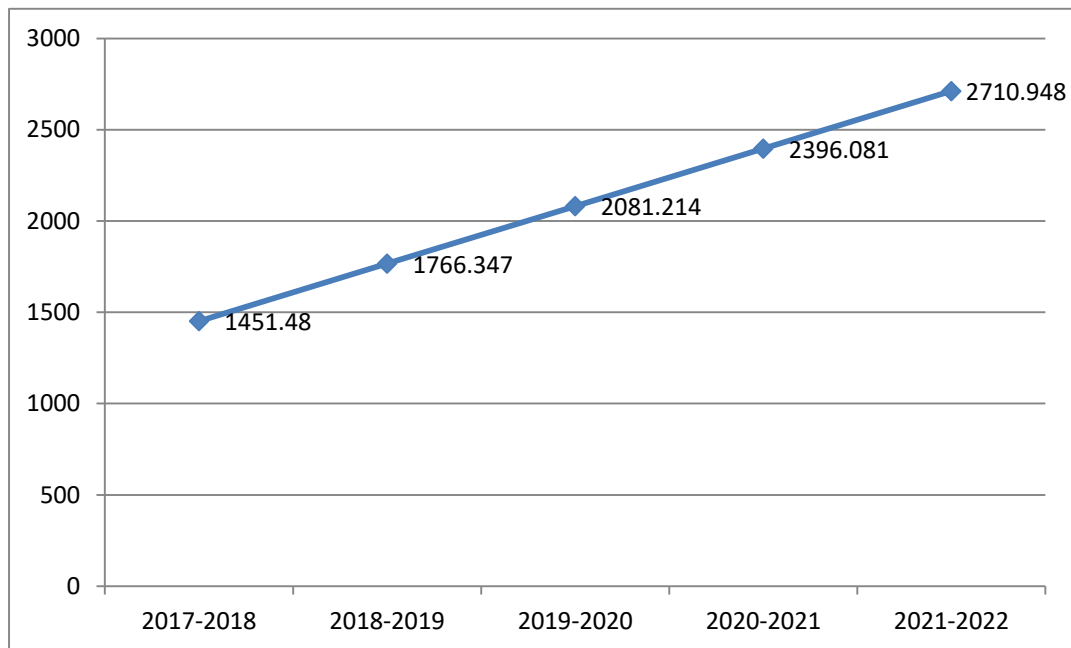
Let us assume x=3

$$Y=a + b(x)$$

$$Y= 2081.214+314.867*3$$

$$Y= 3025.815$$

NET SALES



INTERPRETATION

The Net Sales is increasing at an increasing rate for the all the five years. The company has the highest Net sales on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501

4.18 TREND ANALYSIS –CURRENT ASSETS

Year	Current Assets	x	X ²	X y	Y=a + b(x)
2017-2018	505.46	-2	4	-1010.92	455.94
2018-2019	571.17	-1	1	-571.17	600.353
2019-2020	716.95	0	0	0	744.766
2020-2021	834.28	1	1	834.28	889.179
2021-2022	1,095.97	2	4	2191.94	1033.592
Σ	3723.83	0	10	1444.13	3723.83

$$Y=a +b (x)$$

$$a = \Sigma y /n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a= 744.766$$

$$b= 144.413$$

For: 2022-2022

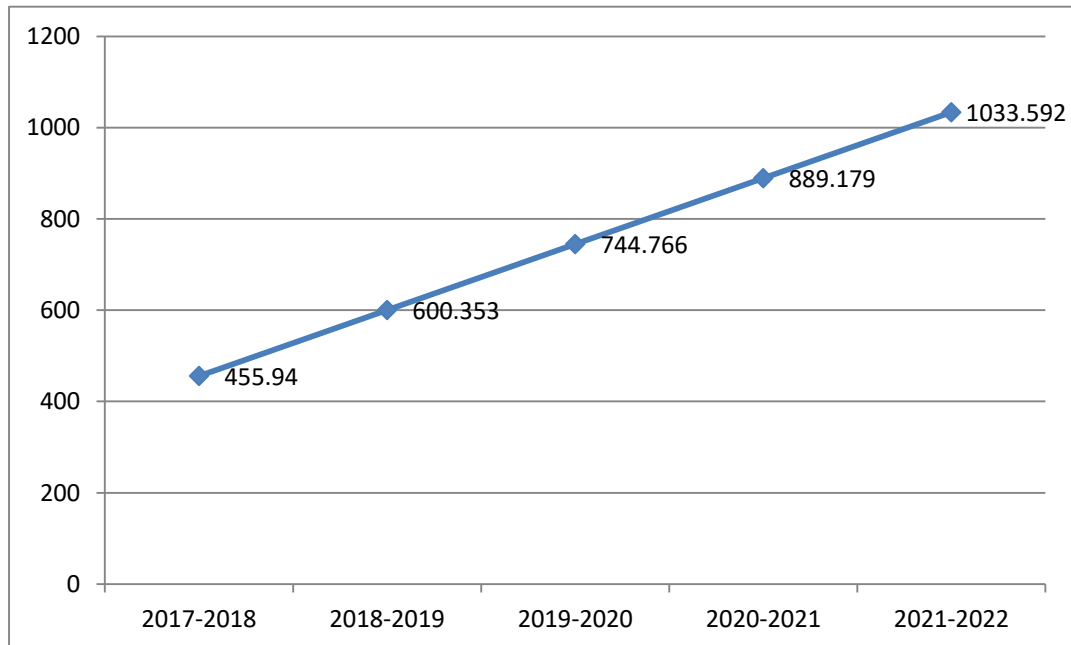
Let us assume x=3

$$Y=a + b(x)$$

$$Y= 744.766+144.413*3$$

$$Y= 1178.005$$

CURRENT ASSETS



INTERPRETATION

The Current assets is increasing at an increasing rate for the all the five years. The company has the highest current assets on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501

4.19 TREND ANALYSIS –CURRENT LIABILITIES

Year	Current liabilities	x	X ²	X y	Y=a + b(x)
2017-2018	315.33	-2	4	-630.66	275.828
2018-2019	334.19	-1	1	-334.19	362.16
2019-2020	437.95	0	0	0	448.492
2020-2021	481.81	1	1	481.81	534.824
2021-2022	673.18	2	4	1346.36	621.156
	2242.46	0	10	863.32	2242.46

$$Y=a +b (x)$$

$$a = \Sigma y /n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a= 448.492$$

$$b= 86.332$$

For: 2022-2022

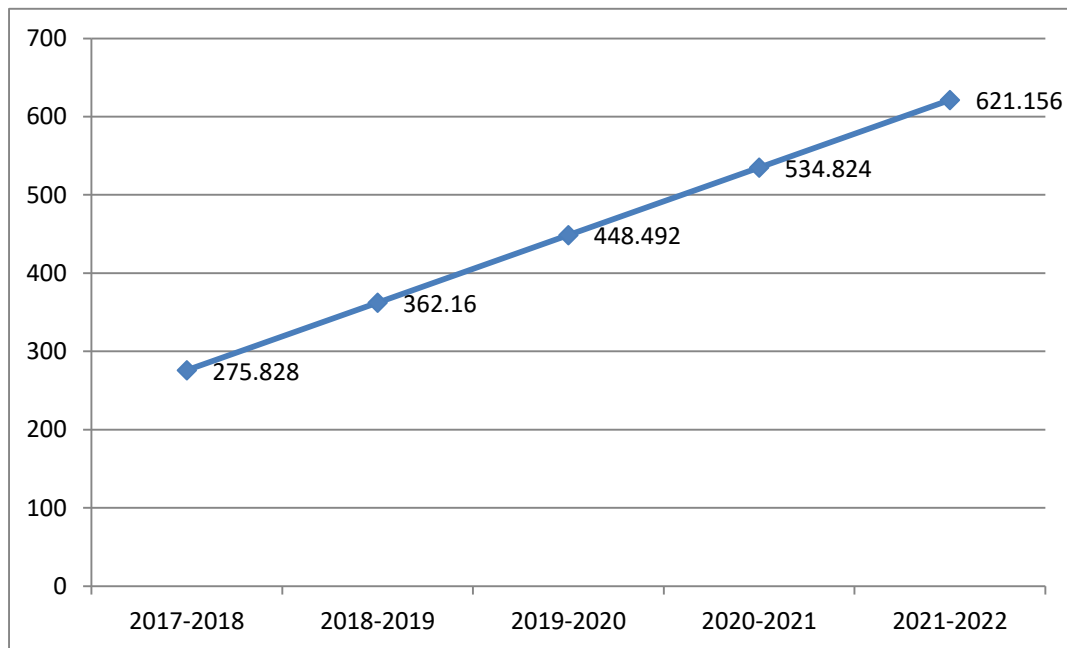
Let us assume x=3

$$Y=a + b(x)$$

$$Y= 448.492+86.332*3$$

$$Y= 707.48$$

CURRENT LIABILITIES



INTERPRETATION

The Net Asset & Liability is increasing at an increasing rate for all the five years. The company has the highest Net WC on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501

CHAPTER 5

FINDINGS AND SUGGESTIONS

5.1 FINDINGS

- Asset & Liability of the Dr. Agarwal's Healthcare Ltd was increasing and showing positive Asset & Liability per year.
- The Dr. Agarwal's Healthcare Ltd maintains sufficient amount of current assets.
- Inventory turnover ratio is very low in the year 2017-2018. In the year 2018-2019 has increased by 7.34 times as compared to 2017-2018 and has again increased to 7.11 times in 2021-2022.
- Debtor's turnover ratio is very low in the year 2017-2018. In the year 2018-2019 has increase by 9.14 times as compared to 2017-2018 and keep increasing in the last year 2020-13 up to 18.01 times
- Creditor's turnover ratio is very low in the years of 2017-2018. And has increased to 10.51 times in the year 2018-2019.And was 11.34 times in the year 2021-2022.
- Asset & Liability turnover ratio is very high in the year 2017-2018. In the year 2018-2019 reduced to 7.45 times and in the last year 2021-2022 was 6.66 times. They have managed to maintain the ratio at an average rate of 6.8 times.
- The Asset & Liability keeps increasing over the years from 2018 to 2022.
- The operating cycle shows that the average cash conversion period of the firm is 35 days.

5.2 SUGGESTIONS

- Asset & Liability of the company has increasing every year. Profit also increasing every year this is good sign for the company. has to maintain further, to run the business long term.
- The company has sufficient Asset & Liability and has better liquidity position. By efficient utilizing this short-term capital, then should increase the turnover.
- The company can maintain the proportion of current assets and current liability which helps to improve better Asset & Liability management.
- The company should take precautionary measures for investing and collecting funds from receivables and to reduce the bad debts.
- The net operating cycle seems to be stabilizing after 2017-2018. So the company is maintaining a good operating cycle period.
- The company may be use a just-in-time approach in managing raw material which makes cash available for other operations.
- The company needs to concentrate more on the payment and collect of debts from the debtors and creditors.

5.3 CONCLUSION

The financial status of Dr. Agarwal's Healthcare Ltd is good. In the last year the inventory turnover has increased, this is good sign for the company. The company's liquidity position is good. With regards to the investments in current assets there are adequate funds invested in. Care should be taken by the company not to make further investments in current assets, as would block the funds, which could otherwise be effectively utilized for some productive purpose. On the whole, the company is moving forward with excellent management.

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ANNEXURE

Particulars	As on 31-3-2018	As on 31-3-2019	As on 31-3-2020	As on 31-3-2021	As on 31-3-2022
CURRENT ASSETS					
Inventories	228.89	240.63	354.44	354.44	396.3
Sundry debtors	205.75	228.76	286.59	286.59	326.12
Cash & Bank balance	18.8	19.94	27.32	27.32	61.81
Loans and Advances	52.48	80.09	100.04	65.89	195.97
Other current assets	0.04	1.75	65.89	100.04	115.77
(A)Total Current Assets	505.96	571.17	834.28	834.28	1095.97
CURRENT LIABILITIES					
Sundry creditors	256.55	274.73	363.39	363.39	533.95
Provisions	58.78	59.46	118.42	118.42	139.25
(B)Total Current liabilities	315.33	334.19	481.81	481.81	673.2
(A)-(B) Net Asset & Liability	190.63	236.98	352.47	352.47	422.77
Increase in Asset & Liability	46.35	----	----	70.32	----
TOTAL	236.98	236.98	352.47	422.79	422.79

A STUDY ON THE EFFECTIVENESS OF ASSET AND LIABILITY MANAGEMENT IN FINANCIAL PERFORMANCE OF DR. AGARWAL'S HEALTHCARE LTD.

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ABSTRACT

This Project titled “A study on the effectiveness of asset and liability management in financial performance of DR. Agarwal's healthcare Ltd”. The scope of the study is identified after and during the study is conducted. The main scope of the study was to put into practical the theoretical aspect of the study into real life work experience. The study of Asset & Liability is based on tools like Ratio Analysis, Statement of changes in Asset & Liability. Further the study is based on last 5 years Annual Reports of Dr. Agarwal's Healthcare Ltd.

INTRODUCTION

Asset & Liability is a critical factor in the sustainability and viability of any business. Many firms are forced to cease trading due to an inability to meet short-term obligations when they are due. To remain in business, it is essential that a firm successfully manage its Asset & Liability. Proper management of Asset & Liability helps to improve a firm's liquidity position and financial health and reduces risk. In this course, you will be introduced to the concept of Asset & Liability and Asset & Liability management. The course will examine the need for Asset & Liability management and identify key factors that will have an impact on the size of the Asset & Liability requirement. This course will also cover the financial planning concepts to estimate Asset & Liability requirement. Finally, this course will describe some of the key strategies that can be used for financing Asset & Liability.

COMPANY PROFILE

Dr. Agarwal's Health care Limited provides healthcare services. The Hospital offers eye care facilities, including cataract, glaucoma, retina, paediatric ophthalmology, cornea, refractive, and other related services. Dr. Agarwal's Healthcare serves patients worldwide. Dr. Agarwal's Health Care Limited is an unlisted public company incorporated on 19 April, 2010. It is classified as a public limited company and is located in Chennai, Tamil Nadu. Its authorized share capital is INR 90.00cr and the total paid-up capital is INR 7.93cr.

STATEMENT OF THE PROBLEM

This study deals with the “Asset and Liability Management” in Dr. Agarwal's Healthcare Ltd.

In the management of Asset & Liability, the firm is faced by two key problems:

- a) First, given the level of sales and the relevant cost considerations, what are the optimal amounts of cash, accounts receivable and inventories that a firm should choose to maintain?
- b) Second, given these optimal amounts, what is the most economical way to finance these Asset & Liability investments? To produce the best possible results, firms should keep no unproductive assets and should finance with the cheapest available sources of funds. Why? In general, is it advantageous for the firm to invest in short term assets and to finance short-term liabilities.

REVIEW OF LITERATURE

- a) **Krishnamurthy's study (2000)** was aggregative and dealt with inventories in the private sector of the Indian economy as a whole for the period 1948-61, this study used sales to represent demand for the product and suggested the importance of accelerator. Short-term rate of interest has also been found to be significant.
- b) **Shin and soenen (2006)** used a sample of 58,985 firm's years covering the period 1975-1994 in order to investigate the relation between net-trade cycle that was used to measure the efficiency of Asset & Liability management and corporate profitability. In all cases, they found a strong negative relation between the length of the firm's net-trade cycle and s profitability.
- c) **Garcia-Teruel and Martinez-Solano (2016)** studied the effects of Asset & Liability management on the profitability of a sample of 8,872 small and medium-sized enterprises (SMEs) from spin covering the period 2002-2003. They found that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.
- d) **Singh and pandey (2017)** had an attempt to study the Asset & Liability components and the impact of Asset & Liability management on profitability of Hindalco Industries Limed for period from 1990 to 2016. Results of the study showed that current ratio, liquid ratio, receivables turnover ratio and Asset & Liability to total assets ratio had statistically significant impact on the profitability of Hindalco Industries Limed.
- e) **According to Amarj gill, Nahum Biger, Neil Mathur (2019)** paper seeks to extend Lazaridis and Try fonidis' findings regarding the relation between Asset & Liability management and profitability. A sample of 88 American firms listed on New York Stock Exchange for a period of 3 years from 2006 to 2016 was selected. They found statistically significant relation between the cash conversion cycle and profitability, measured through gross operating profit.

OBJECTIVES OF THE STUDY

- a) To Know a sources and uses of the Asset & Liability.
- b) To Examine the liquidity position through various Asset & Liability related ratios.
- c) To study the Asset & Liability components such as receivables accounts, cash management, Inventory management.

METHODOLOGY

Research methodology generally refers to the procedure carried out in any project on research study. Methodology gives clear picture of suitable clarification and sequence of the different stages of the study, as to arrive at a proper manifestation of the objective, and the scope.

RESEARCH DESIGN

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

ANALYTICAL RESEARCH;

In analytical research, on the other hand, the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.

SAMPLING DESIGN

Sampling Unit : Financial Statements.
Sampling Size : Last five years financial statements.
Tool Used for calculations : MS-Excel.

DATA COLLECTION METHOD

Secondary data

The secondary data are those which have already collected and stored. Secondary data easily get those secondary data from records, annual reports of the company etc. will save the time, money and efforts to collect the data.

The major source of data for this project was collected through annual reports, profit and loss account of 5year period from 2018.

TOOLS FOR ANALYSIS

- a) Ratio analysis
- b) Trend Analysis

RATIO ANALYSIS

a) CURRENT RATIO ANALYSIS

Year	Current Assets	Current Liabilities	Current Ratio
2017-2018	505.46	315.33	1.60
2018-2019	571.17	334.19	1.71
2019-2020	716.95	437.95	1.64
2020-2021	834.28	481.81	1.73
2021-2022	1,095.97	673.18	1.63

Formula:

Current ratio= Current assets/Current liabilities

Interpretation

Above table shows that the current ratio seems to be fluctuating between the year 2018 to 2022. The current ratio is high in the year 2021 and decreased in 2022 due to increase in current liabilities.

b) QUICK RATIO ANALYSIS

Year	Quick Asset	Quick Liabilities	Ratio
2017-2018	276.57	315.33	0.88
2018-2019	330.54	334.19	0.99
2019-2020	421.41	437.95	0.96
2020-2021	479.84	481.81	1.00
2021-2022	699.67	673.18	1.04

Formula:

Quick ratio= Quick asset/Quick liabilities

Interpretation

Above table shows that the liquid ratio goes on increasing and reached a high mark of 1.04 in the year 2022, but the range is above the standard mark. Hence its liquidity position is adequate.

c) INVENTORY HOLDING PERIOD

Year	Days in a Year	Inventory Turnover Ratio	Inventory Holding Period
2017-2018	365	6.72	54.30 days
2018-2019	365	7.34	49.74 days
2019-2020	365	6.53	55.88 days
2020-2021	365	6.65	54.91 days
2021-2022	365	7.11	51.36 days

Formula:

Inventory Holding period= Days in a year/ Inventory turnover ratio

Interpretation

Above table shows that the inventory holding period seems to be more fluctuating over the years. There was a decrease in 2018- 2019 and increase in 2019-2020. And the company managed to decrease the inventory holding period by increasing the sales by converting the raw materials to finished goods in a short period of time.

d) DEBTORS COLLECTION PERIOD

Year	Days in a Year	Debtors Turnover Ratio	Debtors Collection Period
2017-2018	365	7.48	49 days
2018-2019	365	16.62	21.96 days
2019-2020	365	16.78	21.75 days
2020-2021	365	17.33	21.06 days
2021-2022	365	18.01	20.26 days

Formula:

Average Collection Period= Days in a year/Debtors turnover ratio

Interpretation

Above table shows that the company has managed to collect s debt at an average of 21.6 days. And the days seems to be decreasing since 2019 which shows the quality of the company in collecting the debts.

e) CREDITORS PAYMENT PERIOD

Year	Days in a Year	Creditors Turnover Ratio	Average Payment Period
2017-2018	365	4.55	80.2 days
2018-2019	365	10.51	34.73 days
2019-2020	365	8.81	41.41 days
2020-2021	365	10.93	33.39 days
2021-2022	365	11.34	32.20 days

Formula:

Average Payment Period = Days in a Year/Creditors Turnover ratio

Interpretation

Above table shows the average payment period has decrease due to increase in number of times the debt is paid in a year. In 2017 was 80.2 days and reduced to 34.73 days and again increased to 41.41 days and was 33.39 days later in 2022 was 32.20 days which is a good improvement in settling the debt.

TREND ANALYSIS

A. TREND ANALYSIS-ASSET & LIABILITY

Year	Net Asset & liability	X	X ²	X y	Y=a+b(x)
2017-2018	190.13	-2	4	-380.26	180.116
2018-2019	236.98	-1	1	-236.98	238.193
2019-2020	279	0	0	0	296.27
2020-2021	352.47	1	1	352.47	354.347
2021-2022	422.77	2	4	845.54	412.424
	$\Sigma y = 1481.35$		$\Sigma x^2 = 10$	580.77	180.116

Interpretation

The Net Asset & Liability is increasing at an increasing rate for the all the five years. The company has the highest Net WC on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501.

B. TREND ANALYSIS- NET SALES

Year	Net Sales	X	X ²	X y	Y=a + b(x)
2017-2018	1,537.19	-2	4	-3074.38	1451.48
2018-2019	1,765.78	-1	1	-1765.78	1766.347
2019-2020	1,930.59	0	0	0	2081.214
2020-2021	2,356.19	1	1	2356.19	2396.081
2021-2022	2,816.32	2	4	5632.64	2710.948
	$\Sigma = 10406.07$	0	10	3148.67	10406.07

Interpretation

The Net Sales is increasing at an increasing rate for the all the five years. The company has the highest Net sales on 2022 with 412.424. The trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. While analyzing the trend for the year 2022 the trend was found to be in increasing rate to 470.501

SUGGESTION

- a) Asset & Liability of the company has increasing every year. Profit also increasing every year this is good sign for the company. has to maintain further, to run the business long term.
- b) The company has sufficient Asset & Liability and has better liquidity position. By efficient utilizing this short-term capital, then should increase the turnover.
- c) The company can maintain the proportion of current assets and current liability which helps to improve better Asset & Liability management.
- d) The company needs to concentrate more on the payment and collect of debts from the debtors and creditors.

CONCLUSION

The financial status of Dr. Agarwal's Healthcare Ltd is good. In the last year the inventory turnover has increased, this is good sign for the company. The company's liquidity position is good. With regards to the investments in current assets there are adequate funds invested in. Care should be taken by the company not to make further investments in current assets, as would block the funds, which could otherwise be effectively utilized for some productive purpose. On the whole, the company is moving forward with excellent management.

REFERENCES

- a) Chakra borty, K., 2017. Asset & Liability and Profitability: An Empirical Analysis of their Relationship with Reference to selected Companies in the Indian pharmaceutical Industry. "The Lcfai Journal Of Management Research".
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