

A STUDY ON CASH FLOW ANALYSIS AT TUBE INVESTMENT INDIA LIMITED

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

by

ARJUN.S

Register No.41410036



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**

APRIL 2023



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **ARJUN S 41410036** who carried out the project entitled "**A Study on the Cash Flow Analysis at Tube Investment India Limited**" under my supervision from January 2023 to March 2023.

MR. ROBIN BRAHMA M.COM.,
Internal guide

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DECLARATION

I **ARJUN S (41410036)** hereby declare that the Project Report entitled “**A Study on Cash Flow Analysis at Tube Investment India Limited** ” done by me under the guidance of **MR.ROBIN BRAHMA** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE: 05/05/2023



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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.Arjun.S (Reg.No: 41410036)** student of MBA (HR&Finance) from Sathyabama Institute of Science and Technology, Chennai has successfully completed his project titled "A Study on Cashflow Analysis at Tube Investments India Ltd." between **06th January 2023 to 06th April 2023.**

During the period of training, he has abided by the rules and regulations of the company and shown commitment and passion towards learning.

We wish all success in his future endeavours.

**Yours faithfully,
For Tube Investments of India Ltd.**

**Helan Evanjaline E
Human Resources**

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ABSTRACT

The engineering sector is essential for promoting innovation and technological development in a variety of industries. Mechanical, electrical, civil, and chemical engineering are just a few of the many disciplines that fall under this umbrella. It also involves the design, development, and production of systems, processes, and products. Significant improvements have been made in fields like manufacturing, transportation, healthcare, and renewable energy as a result of the industry's emphasis on innovation and problem-solving.

The industry must also contend with issues including fast advancing technology, shifting laws, and escalating competition. Engineering companies must constantly adapt and spend in R&D, talent acquisition, and process improvement if they want to be competitive. Overall, the engineering sector is essential to advancing economic development and solving some of the most important problems facing the planet.

Tube Investments of India Limited is one of the major players in the country in the field of engineering and moulding of raw materials into finished products. The company main field of workings are bicycles, engineering steel tubes ,train rims and also other steel parts and its relative products. The company is one of the most reputed company from Murugappa Group that represents India across the world.

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ABBREVIATIONS

SHORT FORM	FULL FORM
II	Interest Income
LTB	Long Term Borrowings
LTLA	Long Term Loans and Advances
NPBT	Net Profit/(Loss) before tax
OCL	Other Current Liabilities
OP	Operating Profit
STB	Short Term Borrowings
STLA	Short Term Loans and Advances
STP	Short Term Provisions
TP	Trade Payables
TR	Trade Receivables

CHAPTER – 1

INTRODUCTION

1.1 INTRODUCTION

This project work will be undertaken in the context of partial fulfillment of MBA. The process of manufacturing can be termed as the process of creation of producing a product with the help of machineries, manpower and tools etc. The raw materials are therefore transformed into finished products. It includes the manufacturing of products such as steel tubes, strips, automotive and car door frames and also bicycles.

It holds the largest form of industries and factories that helps to produce and transform raw materials into finished products. The manufacturing form of industries or factories provide maximum amount of turnovers. The products are first engineered and it is then transformed as finished products. Manufacturing industries are therefore classified under the title of engineering industries.

Management of cash is one of the most important operative area of any business operating as a working capital directing as a portion from the reality which is mostly liquid form of current asset. Cash can be determined as a ordinary denomination for which all the current assets which is to be received and stocks will get finally regenerated into a cash underscore which is the implications of managing the cash. For all the firm whatever the size it may be, cash management is one of the most important aspects of its operations.

A cash flow statement is one of the major financial statements for the purpose of a planning or for the purpose of the business. The statement can be constructed in different ways. It may be constructed in the easy format of one page synthesis or may including various agendas to make a centralized evidence.

A cash flow statement is nothing but maintaining the cash flows of the business and also evaluating the books of accounts of the firm. The cash flow statements are not only concentrated with the total sum amount of the flow of cash. Some cash flows are formatted with period of time. This statements not only predict the remaining scale of cash at the end of the year but also we can get cash proportion at the end of the year.

But if the working capital of a firm seems to be inadequate to meet its needs a cash flows will spotlight liquidity issues that may occur in the upcoming future periods. Few cash flows plans are developed so that we can effortlessly supervise the quality of the future predictions. This plan will help us in predicting the flows of monthly cash for the coming future period and also get into a potential inflow and outflow as we move forward for the period of time. This process will finally helps to examine the predictions to potential cash flow and to make alterations to those prepared projections for the remaining period of the year.

1.2 INDUSTRY PROFILE

Engineering

The Murugappa Group is an undisputed leader in light engineering, with a name for quality, value and reliability. Its companies are preferred suppliers across the globe, manufacturing a wide range of components and parts for industrial applications, fitness and mobility solutions.

The engineering sector is the largest of the industrial sectors in India. It accounts for 27% of the total factories in the industrial sector and represents 63% of the overall foreign collaborations. Demand for engineering sector services is being driven by capacity expansion in industries like infrastructure, electricity, mining, oil and gas, refinery, steel, automobiles, and consumer durables.

India has a competitive advantage in terms of manufacturing costs, market knowledge, technology, and innovation in various engineering sub-sectors. India's engineering sector has witnessed a remarkable growth over the last few years, driven by increased investment in infrastructure and industrial production. The engineering sector, being closely associated with the manufacturing and infrastructure sectors, is of huge strategic importance to India's economy.

The development of the engineering sector of the economy is also significantly aided by the policies and initiatives of the Indian government. The engineering industry has been de-licensed and allows 100% foreign direct investment (FDI). Additionally, it has grown to be the biggest contributor to the nation's overall merchandise exports.

India became a permanent member of the Washington Accord (WA) in June 2014. it is now a part of an exclusive group of 17 countries who are permanent signatories of the WA, an elite international agreement on engineering studies and mobility of engineers.

1.3 COMPANY'S PROFILE

Tube Investments of India Limited (TII)

Overview

One of India's leading engineering companies, TII manufactures tubes, metal formed products, chains and cycles. A preferred supplier for the automotive industry, TII also has the distinction of pioneering cycle retailing in India, with prestigious brands like BSA, Hercules, Ladybird, Roadeo, Montra and Mach City in its stable.

Bicycles, metal formed goods, and chains are the areas of expertise of Indian engineering and manufacturing firm Tube Investments of India Limited. It belongs to the Murugappa Group and has its headquarters in Chennai. As a joint venture firm, it was founded in 1949 under the name TI Cycles of India Limited.



Highlights

Largest manufacturer of precision tubes in India

2nd largest bicycle producer in India with 4 million cycles per year; market leader in the 'specials' segment

2nd largest producer of transmission chains in India

Every second two wheeler in India uses TPI's safety-critical front fork

Frontrunner in developing a complete and premium buying experience for cycles in India through its concept 'Track & Trail' stores and online sale.

History

- 1949: Established TI Cycles of India Limited (present day Tube Investments of India Limited) in association with Tube Investments Limited, UK (present day TI Group)
- 1955: Established Tube Products of India Limited in association with Tube Products (Old Bury) Limited, UK
- 1960:
- Established TI Diamond Chains Limited in association with Diamond Chain Company (Usa)
- Established TI Miller in association with Miller, UK
- 1965: Established TI Metal Forming
- 1990: Acquired Press Metal Corporation
- 1993: TIDC acquired Satavahana Chains
- 1999: TPI acquired Steel Strips And Tubes Limited
- 2001:
- TII acquired Cholamandalam Investment and Finance Company Limited
- Established Cholamandalam MS General Insurance Company Ltd
- 2010: TI India acquired French chain manufacturer Sedis
- In 2012, Tube Investments bought a 44.12% controlling stake in Coimbatore-based Shanthi Gears for ₹ 292 crore.
- In 2014, the large diameter tubing plant was inaugurated

The TII Heritage

The Group traces its origins to 1898, when Dewan Bahadur A M Murugappa Chettiar went as an apprentice to Burma (now Myanmar). Quick to learn financial skills and Burmese, he realized he was destined to greater achievements; he founded a firm in Moulmein, a large port-city in Lower Burma. This grew into a prosperous family-owned business, with interests in Banking, Rubber and Trade, covering Malaya (Malaysia), Ceylon (Sri Lanka), Indonesia and Vietnam. The outbreak of the World War II and subsequent political upheavals in the region cut short the firm's growth. While a good portion of its hard earned fortunes were lost, the family had the foresight to move significant assets to India; this financial prudence ensured that the business would rebound after the disaster. And rebound it did.

Back home in India, the Group had engaged in businesses like Rubber, Steel cabinets, Yarn and other traded goods. But the real major industrial opportunity came soon after Independence. Political Independence spawned Economic Independence: and AMM Murugappa Chettiar, Dewan Bahadur's eldest son (and by then, head of the family) was quick to realise it. His vision was to start a business that would manufacture a product for the common man which they could sell in large numbers.

Thus, in 1949, TI Cycles of India (TICI) was born in collaboration with TI of UK. It was the Group's first of many successful Joint Ventures and also its first foray into large scale manufacturing. Later, as a measure of backward integration two more companies were formed: Tube Products of India (TPI) in 1955, to make steel tubes for bicycle frames and TI Diamond Chain (TIDC) in 1960 to make bicycle chains. Over a period of time these two businesses have moved up the value chain from bicycle parts to higher technology products.

In 1959, Tube Investments of India (TII) was formed by merging TI Cycles of India and Tube Products of India. TI Diamond Chain was merged with the parent company, in 2004. In 1962, the company saw a potential to leverage its engineering skills to address the market for roll formed metal products. So a new unit called TI Metal Forming was created to realize this potential; to this day it is recognized as the pioneer in this business.

Meanwhile, the Management was also progressively Indianised. The first Board of Directors had equal representation from Indian promoters and TI-UK. TI-UK divested a major portion of its share holdings in two tranches in 1978 and 1985 by mutual agreement. TI-UK continued to hold a minority shareholding and participated in the management with a representative in the Board of Directors till 2001. Today TII is an Indian company with a global outlook.

During the 1990s TII made many bold acquisitions to enhance its presence in its core businesses. The most notable, was the case of Satavahana chains, a sick BIFR company that was turned round to a highly profitable unit. Other success stories were the acquisition of a Japanese Tube plant and a German Chains plant which were re-erected in Chennai to address the growing export markets. A successful GDR issue in 1994 increased its financial muscle and accelerated both acquisitions and expansions. Capacities were increased in all its units to meet the growing customer demands.

In over six decades of its existence, TII has built significant skills in engineering and metallurgy, which is fully supported by a central R&D function. A Total Quality Management approach has ensured a satisfied community of customers and TII is the preferred supplier in all the markets it operates. TII continues the tradition of financial discipline and prudence set by the founding fathers. It is this tradition that has earned TII the unique distinction of uninterrupted dividend distribution since 1954.

VISION OF THE COMPANY

Build a globally admired Indian engineering company creating stakeholder delight

MISSION OF THE COMPANY

Metal to mobility and also engineering products for the future.

VALUES OF THE COMPANY

- **Strong image**
- **recruitment**
- **Turnkey solution**
- **Proximity**
- **Serenity**

STOCK MARKET

TII is listed on both NSE and also BSE. The valuations are as follows:

Tube Investments of India Ltd

2,718.00 INR+119.45 (4.60%)

17 Apr, 3:30 pm IST •

Major Divisions of Tube Investments India :

The major divisions are:

TI Cycles of India (TICI)

TI Cycles of India (a unit of Tube Investments of India Ltd.) is a bicycle manufacturer based in India. Established in 1949 by the Murugappa Group and Sir Ivan Stedeford of Tube Investments Group in UK, TI Cycles is the maker of brands like Hercules, BSA and Philips cycles.

Currently it is the first largest cycle manufacturer in India and number one manufacturer in special segments like mountain bikes, sports lite roadsters, racing bikes etc. It has a manufacturing capacity of around three million bicycles per year.

Of late, TI Cycles has begun to sponsor a variety of cycling events, one of them being the 900+ km Tour of Nilgiris, through its brand BSA.

- **BSA Motors (BSAM)**

BSA Motors is a manufacturer of non-pollutant electric vehicles. It has its manufacturing plant in Avadi, Tiruvallur district

- **Tube Products of India (TPI)**

Tube Products of India (TPI) is a steel tubes manufacturer based in India. Tube Products of India was established in the year 1955 in collaboration with Tube Products (Old Bury) Limited, UK to produce Electric Resistance Welding (ERW) and Cold Drawn Welded (CDW) tubes also called as Drawn Over Mandrel tubes.

The manufacturing locations of Tube Products of India are located at:

- Avadi , Chennai , Tamilnadu
- Shirwal ,Maharashtra
- Mohali , Punjab
- Tiruthani , Tamilnadu (Large Diameter Plant)

- **TI Diamond Chains (TIDC)**

TI Diamond Chains, simply known as TIDC India, was established as a joint venture between Tube Investments of India Limited & Diamond Chain Company Inc USA. Tube Investments of India Limited merged it with as a division called TIDC India. TIDC India is a chain manufacturer in segments such as industrial, automotive and fine blanking.

TIDC India's manufacturing plants are:

- TIDC India, 11, M. T. H Road, Ambattur,Tiruvalur District
- Gangnoli, Laksar, Haridwar, Uttrakhand.
- Kazipally Village, Jinnaram Mandal, Medak District, Telangana.

- **TI Metal Forming (TIMF)**

TI Metal Forming was established in 1965 as a division of Tube Investments of India Limited. It manufactures car door frame (skin parts), glass separator channels, door guide rails (stainless steel), window channels, side impact beams, casing for starter motor (deep drawn part), HCV chassis and CRF sections for railway wagons and coaches.

- **Shanti Gears**
- **TI TMT Macho**

Murugappa Group

Founded in 1900, the INR 547 Billion Murugappa Group is one of India's leading business conglomerates. The Group has 29 businesses including ten listed Companies traded in NSE & BSE. Headquartered in Chennai, the major Companies of the Group include Carborundum Universal Ltd., CG Power and Industrial Solutions Ltd., Cholamandalam Financial Holdings Ltd., Cholamandalam Investment and Finance Company Ltd., Cholamandalam MS General Insurance Company Ltd., Coromandel International Ltd., Coromandel Engineering Company Ltd., E.I.D. Parry (India) Ltd., Parry Agro Industries Ltd., Shanthi Gears Ltd.,

Tube Investments of India Ltd. and Wendt (India) Ltd. The Group holds leadership position in several product lines including Abrasives, Technical Ceramics, Electro Minerals, Auto Components & Systems, Bicycles, Fertilisers, Sugar, Tea and Spirulina (Nutraceuticals). The Group has forged strong alliances with leading international companies such as Groupe Chimique Tunisien, Foskor, Mitsui Sumitomo, Morgan Advanced Materials, Yanmar & Co. and Compagnie Des Phosphat De Gafsa (CPG).

The Group has a wide geographical presence all over India and spanning 6 continents. Renowned brands like BSA, Hercules, Montra, Mach City, Ballmaster, Ajax, Parry's, Chola, Gromor, Shanthi Gears and Paramfos are from the Murugappa stable. The Group fosters an environment of professionalism and has a workforce of over 53,000 employees.

The Group has presence in several segments including abrasives, auto components, bicycles, sugar, farm inputs, fertilizers, plantations, bioproducts and nutraceuticals. It owns brands like BSA, Hercules, Montra, Mach City, Ballmaster, Ajax, Parry's, Chola, Gromor, Shanthi Gears and Paramfos. The Group has a workforce of over 50,000 employees. The current executive chairman is MM Murugappan



PRODUCT PROFILE

Products



Tube Products of India (TPI)

CDW and ERW Tubes, Tubular Components, Large Diameter Tubes for Hydraulic Cylinders and off-road Applications and Special Grade Cold-rolled



TI Cycles of India (TICI)

Cycles, Cycle Components, Fitness Equipment and Accessories



Metal Formed Products Division

Drive and Cam Chains Two-wheelers, Fine Blanked Precision Components, Auto Components, Stainless Steel Cook, Agri Implements



Industrial Chains

Chains for Industrial Applications, Engineering Class Chains



Industrial Gears

Worm Gearboxes, Helicals, Gears & Pinions and Gear Servicing

1.4 NEED FOR THE STUDY

- To make sure that the best investment plan is practiced. As there are variety of investment opportunities present the best one can be taken off.
- To assess the pattern do that it is beneficial for all the other small company to follow and execute the plans and male sure that they are also benefitted from it.
- To choose the best one for the company's growth.

1.5 STATEMENT OF THE PROBLEM

An income statement showing sales, revenue, taxes, expenses, etc. is part of an accounting statement. The liabilities and asset positions for the prior year are shown on another section of the balance sheet. With the aid of the previous and most recent five years' worth of cash flow statements and financial condition, I sought to analyse the data in my study objectively.

1.6 OBJECTIVES OF THE STUDY

- To understand the various investment provided to the customers.
- To provide the level of investments and also the various methods of investments in the company.
- To analyse the choice of interest of the employers on the basis of the work
- To provide various schemes and investment opportunities of the business.
- To understand the type of investments design of the company and also the allocation of the funds.
- To maintain better cash flow in the company and also yield maximum profits.

1.7 SCOPE OF THE STUDY

- To understand the pattern of investment provided by TII and make sure that it is followed up by the smaller company.
- To enhance the growth of the company and also its beneficial products for the company.
- To understand the new ways of operation in various new areas and also new sectors.

1.8 LIMITATIONS OF THE STUDY

1. **Time:** the time period given for the purpose of preparation of project has been about 12 weeks. The study can be done only for the period of 5 years
2. **Finance:** as I got a limited financial resource indepth research cant be undertake.
3. The cash flow statement of 5 years of a firm is used for the purpose of project.

CHAPTER – 2

CONCEPTUAL BACKGROUND AND LITREATURE REVIEW

2.1

REVIEW OF LITREATURE

1.Güleç, Ö.F. & Bektaş, A. (2019). Cash Flow Ratio Analysis: The Case of Turkey. Muhasebe ve Finansman Dergisi Ağustos Özel Sayısı, 247-262

Cash flow-based information provides more insights about liquidity, profitability and financial structure of companies with the other primary financial statements. Hence, using cash flow ratios together with the conventional financial ratios will contribute to the financial statement analysis. Since cash flow ratios are not common as much as the traditional ratios and are still evolving, developing benchmarks and determining normative values are relatively harder for the assessment of firms. Thus, the main motivation of this study is to demonstrate the power of the statement of cash flows by using 8 fundamental cash flow ratios with 10 traditional ratios in the areas of liquidity, profitability and financial structure.

2.(Chang et al., 2019; Li et al., 2017; Tsao et al., 2019).

Timely payment is necessary for the efficient delivery of goods and services to all entities in the supply chain. Traditionally, there has been a lot of manual processes related to payment. Nowadays the technology advancements make the payment process in electronic form. Even the electronic form is not easily accessible to all parties in the supply chain. Each entity of the supply chain maintains separate transaction records that remain difficult, inefficient, and error prone. Often companies face difficulties in monitoring the status of shipments and linking them to payments.

3.Amrizah Kamaluddin & Norhafizah Ishak & Nor Farizal Mohammed, 2019. "Financial Distress Prediction Through Cash Flow Ratios Analysis," International Journal of Financial Research, International Journal of Financial Research, Sciedu Press, vol. 10(3) The purpose of this study to examine the relationship of cash flow ratios in predicting financial distress companies, with industrial and consumer product companies in Bursa Malaysia as the sample. The study on financial distress is critical as it can lead to bankruptcy, which may adversely affect the economy of the country. Therefore it is worth exploring any indicators that can identify the possibility of financial distress in the company.

4.(U. Lee et al., 2020)

Once the product performance and attributes are linked based on engineering models, profit can be obtained through a marketing model that determines demand based on customer decisions. A discrete choice analysis is a statistical technique that explores customer decision-making and measures the trade-offs for product attributes based on the choice data observed from respondents

5.Markus, G. and Rideg, A. (2021)

The purpose of this paper is to interconnect the firm level competitive performance (competitiveness) to the financial performance of the firms. The goal is to give evidence on how successful small- and medium-sized enterprises (SMEs) use their financial performance to support their competitive performance.

6.Günay, F. & Ecer, F. (2020)

The cash flow of a company is a key element for the firm value. The firm value of a company is depending largely on the ability to generate cash flows. In other words, a company's firm value is calculated by using cash flows. Financial performance analysis helps companies in effective decision-making, planning, and auditing functions. Traditional ratio analysis uses the statement of financial position (balance sheet) and the profit and loss statement (income statement) to measure financial performance.

7.Michael Aba , Ayodeji Ladeinde and Emmanuel Afimia (2019)

The outcome of the assessment conducted by Evans et al. [2] on the available renewable technologies was considered in selecting the combination of RETs to be included in the HRES. Thus, solar photovoltaic (PV) and wind technologies have been selected for inclusion in the HRES. These two types of RETs were selected because, as posited by Evans et al. [2], wind is the most sustainable RET, while PV is the third most sustainable RET in the world.

8.Samet, M. and Jarboui, A. (2017), "CSR, agency costs and investment-cash flow sensitivity: a mediated moderation analysis"

The purpose of this paper is to document the relation between investment-cash flow sensitivity and a firm's engagement in corporate social responsibility (CSR) activities in European context. Specifically, this paper aims to empirically examine how CSR moderates the sensitivity between investment spending and firm internal funds.

9. Khusainova L.Yu. (2021)

At any point in time, a firm can be viewed as a collection of capital coming from various sources: from investors, creditors, as well as income received as a result of the firm's activities. These funds are used for various purposes: the acquisition of fixed assets, the creation of inventories, the formation of receivables, and others.

The article discusses theoretical approaches to the analysis of cash flow, compares the formation of indicators by direct and indirect method, examines the directions of cash flow, and explains the essence of cash flows and methods of their assessment.

10. Jan-Pieter Oosterom, Charles A.S. Hall 2022

Energy companies, like companies more generally, routinely have to make investment decisions by comparing alternative investment projects. In the face of the uncertainty of the current energy transition, traditional economic tools, such as discounted cash flow (DCF) analysis, that depend on long term cash forecasting, offer limited, deterministic and potentially misleading insights.

Additionally there are many pressures on companies to expand decision making criteria to “ESG” (Environmental, Social and Governance) considerations. But these are often qualitative with no clear standards, leaving investors often forced to make significant investments based on poorly understood, at times misleading and even self-defeating considerations.

We explore the application of Biophysical Economics (BPE), an approach to economics based on the natural sciences, as an alternative to provide an additional lens that cuts through the uncertainty and political pressures to help companies navigate this uncertainty and make more robust long term investment decisions. The most immediately useful tool within BPE is the concept of Energy Return on Energy Invested (EROI).

11. S Ogbeide, B Akanji - Revista de Management Comparat International, 2017

The study uses both descriptive and inferential statistics to determine the relationship among the variables. It also employs the series of diagnostic tests to ensure stability of the time series used as well as to ensure the model meets the assumption of ordinary least square. The findings reveal that cash flow was observed to determine insurance firms' financial performance and is statistically significant.

Cash flow from operating activities was observed to significantly increase financial performance of insurance companies in the period examined. Cash flow from financing activities was found to increase the financial performance of the sampled insurance firms, but was not statistically significant. The size of the insurance company did not increase the financial performance of the insurance firms and was also not statistically significant.

The paper recommends that managers in insurance firm should regularly change the extent at which cash is spent to avoid negative cash flow position as well as

financial crisis. Adequate investment appraisal is really a concern that insurance firms need to take into consideration when customers are taking up insurance coverage. The costs have to be weighed against the benefits accruable thereto.

12. G Vayas-Ortega, C Soguero-Ruiz, JL Rojo-Álvares, 2020

The Discounted Cash Flow (DCF) method is probably the most extended approach used in company valuation, its main drawbacks being probably the known extreme sensitivity to key variables such as Weighted Average Cost of Capital (WACC) and Free Cash Flow (FCF) estimations not unquestionably obtained.

In this paper we propose an unbiased and systematic DCF method which allows us to value private equity by leveraging on stock markets evidences, based on a twofold approach: First, the use of the inverse method assesses the existence of a coherent WACC that positively compares with market observations; second, different FCF forecasting methods are benchmarked and shown to correspond with actual valuations.

We use financial historical data including 42 companies in five sectors, extracted from Eikon-Reuters. Our results show that WACC and FCF forecasting are not coherent with market expectations along time, with sectors, or with market regions, when only historical and endogenous variables are taken into account.

The best estimates are found when exogenous variables, operational normalization of input space, and data-driven linear techniques are considered (Root Mean Square Error of 6.51). Our method suggests that FCFs and their positive alignment with Market Capitalization and the subordinate enterprise value are the most influencing variables. The fine-tuning of the methods presented here, along with an exhaustive analysis using nonlinear machine-learning techniques, are developed and discussed in the companion paper.

13. K Singh, M Misra - Agricultural economics–Czech, 2019

A significant number of studies have been conducted on the determinants of cash holding levels for different corporates. However, no such study has been witnessed so far on the agricultural enterprises. In this study, we examine the determinants of the cash-holding levels for the Indian agrarian enterprises during 1995-2016 period. With the help of weighted least-squares (WLS) regression analysis, we find evidence that the Indian agro-enterprises with greater lucrative opportunities tend to hold less cash.

On the other side, we found that large agro-enterprises tend to hold some other mode of liquid assets rather than cash. The firms with higher capital expenditure and distributing profits as a dividend were shown to hold more cash. In our analysis, we find supportive evidence of the static trade-off theory of cash holding. In general, transaction motives and precautionary motives also play an important role in explaining the determinants of cash holding levels for Indian agrarian enterprises.

14. V Mohagheghi, SM Mousavi, B Vahdani - Neural Computing 2017

Reliable knowledge of project cash flow is essential for effective project management. Since the nature of project is uncertain and easily effected by different criteria, considering uncertainty has become a vital part of any effective project management approach. Cash, as one of the most important project resources, requires reliable management techniques.

In this paper, a new interval type-2 fuzzy project cash flow analysis model based on interval type-2 fuzzy project scheduling is proposed to predict project cash flow in different periods of project life cycle. Despite using type-2 fuzzy sets in various practical problems, they are new to project management; thus, they are used in this paper to address the uncertainty and lack of sufficient knowledge in project activity durations and costs.

In the first part, interval type-2 fuzzy project scheduling model is introduced, and then the forward and the backward passes are defined. In order to improve this part, a new flexible and controllable method of interval type-2 fuzzy ranking is introduced. In the second part, a model of cash flow assessment is proposed under an interval type-2 fuzzy environment.

15. A Nosov, O Tagirova - Scientific Papers 2021

In financial management a special attention has to be paid on the main financial indicators among which cash flow is very important as it is closely related to efficiency of the company. In any sector of activity, but especially in the agricultural companies, the success in their development depends, first of all, on how efficiently its cash flows are organized .

Cash flow management is a tool that helps to achieve a high level of enterprise profit . Assessment and forecasting of cash flows allow management to control the synchronization of income and expenditures of funds, thereby maintaining the amount of funds required to fulfill payment obligations.

In addition, this allows a more realistic assessment of the payment capabilities of the enterprise, making such a choice of funding sources and purposes of use that will create an optimal cash flow scheme that can lead to growth of economic value and long-term viability of the enterprise . The purpose of this study is to propose practical recommendations for improving the management of cash flows in an agricultural organization.

16. A Litvinenko, J Alver - Accounting and Management Information 2023

Credit risk modelling becomes an important part of the daily operations to assess a borrower's solvency and liquidity, especially with the increase in the number of applications to obtain business financing (European Central Bank, 2021). However, the researchers and business practitioners question the validity and completeness of the analysis obtained from credit risk modelling based on traditional financial statements, such as income statements and balance sheets (Jury, 2012). To acquire

certain benefits (i.e. additional funding) managers may internally manipulate the information in traditional accrual-based financial statements.

The researches show plenty of evidence that accounting professionals within the companies intentionally manipulate the financial records and reports to meet a specific target (Bhasin, 2016). On the other hand, when financial institutions make decisions to grant a loan, it is essential for them to determine the exact numerical value of risk exposure.

Having clear credit risk estimations is not only important to improve decision-making and its possible financial consequences, but it is also a legal requirement to the financial institutions set by the controlling institutions (European Bank Authority, 2021). For investors, it is crucial to have a clear analysis of the financial state of their potential investment, especially foreign direct investment.

17. Y Yannizar, W Wazirman International Research 2020

The phenomenon of the "megadolar" case that occurred in Enron Corporation and the profits stated over stated at PT. Kimia Farma caused by earnings management. Earning management results in reporting on financial statements asymmetry with the actual situation. This can bring huge losses to shareholders because financial statements are the main basis for shareholders in conducting business transactions.

Utami (2005) in his research stated that Indonesia is the country with the most rice earning management. Thus, it is important for investors and shareholders in Indonesia to look at things that can trigger earnings management and what can prevent earnings management. In this study the researchers tested the effect of good corporate governance, free cash flow, and leverage on wealth earning management and shareholders.

The researcher examines the effect of good corporate governance as a variable that can prevent earnings management and test free cash flow and leverage as triggers for earnings management. In this study using a sample of 178 service sector companies taken through the Yamane method with a sampling method namely purposive sampling in the 2016-2018 period. Data analysis and hypothesis testing in this study using the Partial Least Square Path Modeling (PLS-SEM) method.

The results showed that good corporate governance proved to have a significant negative effect on earnings management while shareholders in wealth had a significant positive influence. Free cash flow proved to be insignificant to earning management while shareholder wealth had a significant positive effect. The leverage variable proved to have a significant negative relationship to earnings management as well as wealth shareholders.

18. EAG Adjei, FD Fugar, E Adinyira, DJ Edwards, EA Pärn – 2018

This paper identifies and explore significant quantifiable cash flow factors influencing building projects profitability in Ghana. A thorough literature was undertaken to

unravel the quantifiable cash flow factors which facilitated design of questionnaire. A survey with prime focus on large firms registered with the Association of Building and Civil Engineering Contractors, Ghana was undertaken. A total of 50 questionnaires were received from 63 administered representing 79.36% response rate with a Cronbach Alpha value of 0.895 and Kappa value of 0.743 respectively were attained.

One-sample t-test was performed on the rated responses to establish 12 significant factors. Principal component analysis was subsequently employed to reduce factors to the most significant components. Prominent variables selected from rotated and component score matrixes were: wages of labour and staff; progress payment duration; bank interest rate; and replacement of defective works as significant variables.

This study was limited to quantifiable cash flow factors and large construction firms hence, recommended further study with focus on qualitative factors, procurement types, broader scope of construction firms and other developing countries. The outcome of this is to aid construction managers effectively manage the significant cash flow factors to maximize profit.

19. J Natolski, R Werner - Risks, 2017

The replicating portfolio approach is a well-established approach carried out by many life insurance companies within their Solvency II framework for the computation of risk capital. In this note, we elaborate on one specific formulation of a replicating portfolio problem. In contrast to the two most popular replication approaches, it does not yield an analytic solution (if, at all, a solution exists and is unique). Further, although convex, the objective function seems to be non-smooth, and hence a numerical solution might thus be much more demanding than for the two most popular formulations.

Especially for the second reason, this formulation did not (yet) receive much attention in practical applications, in contrast to the other two formulations. In the following, we will demonstrate that the (potential) non-smoothness can be avoided due to an equivalent reformulation as a linear *second order cone program* (SOCP). This allows for a numerical solution by efficient second order methods like interior point methods or similar.

We also show that—under weak assumptions—existence and uniqueness of the optimal solution can be guaranteed. We additionally prove that—under a further similarly weak condition—the fair value of the replicating portfolio equals the fair value of liabilities. Based on these insights, we argue that this unloved stepmother child within the replication problem family indeed represents an equally good formulation for practical purposes.

20. A Kustra, S Lorenc - Energies, 2021

The use of geothermal energy to produce heat and electricity has become increasingly important in recent years. This is mainly due to environmental issues and the need to ensure energy security. The aim of the article was to analyse and compare the ability to maintain cash balance of selected geothermal companies in Poland. The following were taken for verification: Przedsiębiorstwo Energetyki Ciepłej PEC Geotermia Podhalańska S.A., Geotermia Poddębice Sp. z o.o., Geotermia Mazowiecka S.A., Geotermia Pyrzyce Sp. z o.o. and Geotermia Czarnków Sp. z o.o. The adopted research methodology, combining accrual and cash recognition, allowed the analysis of the ability to create cash flows and maintain cash stability in 2016-2019. The study used financial data from the financial statements of the analysed companies.

The analysis shows that the highest cash flows from assets defined as Free Cash Flow to Firm FCFF (over PLN 11,318 thousand) and the highest cash flows for owners Free Cash Flow to Equity FCFE (over PLN 10,005 thousand) are generated by Geotermia Mazowiecka S.A. At the same time, the balance between cash flows meeting the inequality $FCFF \geq FCFE + FCD$, where FCD Free Cash Flow to Debt, determines the ability of assets to generate cash covering the current distribution of capital for its donors.

Consequently, there is an increase in the value of cash resources identified in investments in the management balance sheet. Such a situation occurred in the case of Geotermia Poddębice Sp. z o.o. and Geotermia Mazowiecka S.A. The reverse situation, i.e., $FCFF < FCFE + FCD$ is characteristic for cash imbalance. In such conditions there is a decrease in cash resources identified in the management balance. This occurred in PEC Geotermia Podhalańska S.A., Geotermia Pyrzyce Sp. z o.o. and Geotermia Czarnków Sp. z o.o.

21. DD NGUYEN, AH NGUYEN - The Journal of Asian Finance 2020

The paper investigates the impact of the statement of cash flows of listed companies on lending decisions of commercial banks in the context of Vietnam. Survey data for the research were collected from 160 credit officers of Vietnamese commercial banks for short-term and long-term lending decisions, whether the cash flow statement includes complete information or has a lack of information. The cash flow statement, in which the information on the cash flow is completely contrary to the profit information on the income statement is examined.

This paper employed T-tests to address the research issues in a market considered to be ineffective, like Vietnam. The research results show: (1) the information on the cash flow statement affects both the short-term and long-term lending decisions of credit officers, and (2) the lack of information on the cash flow statement in both cases of positive and negative profits affects the comfort and confidence of credit officers in making decisions. The research findings also indicate that cash flow statements are important for lending decisions of credit institutions in Vietnam.

Therefore, this paper provides a new insight to managers on how to improve the quality of cash flow statement to meet the needs of lenders.

22. A Dirman - International Journal of Business, Economics and Law, 2020

The research objective to be achieved is to provide understanding and knowledge to the public, especially investors and creditors about the effect of profitability, liquidity, leverage, company size, and free cash flow on financial distress and can be used as a reference for future researchers and stakeholders (investors, creditors, and government) in making relevant and reliable decisions. The method used is quantitative research with secondary data taken from the issuer's financial statements on IDX with data collection techniques using the purposive sampling method. Analysis of the data used is multiple linear regression. The population in this research is manufacturing companies of basic and chemical industry sectors which are listed on the Indonesia Stock Exchange which is conducted for 3 years of observation, namely 2016-2018.

The sample is determined by the purposive sampling method so that as many as 90 samples are obtained. The analysis technique used is the statistical test t, and the classic assumption test which includes normality test, multicollinearity test, heterokedasticity test, and autocorrelation test. The results of this study indicate that the profitability variable has a positive effect on financial distress; variable liquidity, leverage, and free cash flow do not effect financial distress; and firm size variables have a negative effect on financial distress

23. FA SULEHRI, M RIZWAN, I SENTURK - Bulletin of Business 2022

Cash flow plays a vital role to bring many benefits to the smooth functioning of the financial system and the economy as a whole. So, it is interesting to study factors affecting cash flow. This study has examined the impact of intangible assets and firm-specific factors on cash flow. We have done our empirical analysis of public firms listed on the Pakistan stock exchange for the years 2009 to 2020. The data has been collected from the financial statements of automobile sectors which are listed on public firms on the Pakistan stock exchange (PSX).

Cash flow is most significantly influenced in a positive way by the results that are expected to be generated by intangible assets. The firm size has a negative and significant impact on cash flow. The estimated results of firm growth have a significant and positive impact on cash flow.

The estimated profitability results have a significant and negative impact on cash flow. The estimated results of earnings volatility have an insignificant and negative impact on cash flow. The overall results conclude that selected explanatory variables play an important role in determining the level of cash flow.

24. AK Bhar - Global Journal of Business, Economics and 2019

A program that keeps record of personal financial details and also mines the data for insightful analysis is definitely a good day-to-day companion. In this generation, such tool is inevitable in the financial dealings of any individual or company. In this study, we developed an easy but highly intuitive method of tracking financial

dealings, budgeting and forecasting personal financial expenditure using Microsoft Excel

Among others, this program can aid in implementing financial strategies designed to meet specific goals based on percentages in specific categories. From such data, mathematical models were also developed and prediction was made. With little or no modification, the Cash flow program presented in this study could be adopted for use in any type of the organisation where money or any article of business comes in and goes out in a particular cycle (typical of which is monthly). Results and method presented here proved to be effective.

To curb financial miss-management, among others, one needs to track his/her spending. Once a system is in place for tracking money spent, two certainties will transpire. First, you will spend less money than you would have compared to the absence of the tracking expenses. Second, you will be developing the discipline necessary to accumulate true wealth.

25. J Kulejewski, N Ibadov, J Rosłon, J Zawistowski - Energies, 2021

This study concerns the use of the critical chain method to schedule the construction of renewable energy facilities. The critical chain method is recognized as a useful project management tool, transforming a stochastic problem of uncertainty in activity durations into a deterministic one. However, this method has some shortcomings. There are no clear principles of grouping non-critical activities into feeding chains. Another ambiguity is sizing the feeding buffers with regard to the topology of the network model and the resulting dependencies between activities, located in different chains. As a result, it is often necessary to arbitrarily adjust the calculated sizes of feeding buffers before inserting them into the schedule.

The authors present the new approach to sizing the time buffers in the schedule, enabling a quick assessment of the quality of a given solution variant and finding a solution that best meets the established criteria, conditions, and constraints. The essence of the presented approach is the two-step sizing of time buffers with the use of deterministic optimization and stochastic optimization techniques.

Taking into account construction management needs, the optimization criteria are based on the construction project cash flow analysis. The effectiveness of the presented approach is illustrated by an example of developing a wind power plant construction schedule. According to the results, the presented approach ensures the protection of the scheduled completion date of the construction and the stability of the schedule.

26. H Mahmoud, V Ahmed, S Beheiry - Journal of Risk and Financial 2021

As investment increases in capital projects, financial risks increase, and cash flow prediction and control become more paramount. Higher risks could hinder project performance and increase the chances of failure in multiple aspects of a project. While there are models that aim to assess and forecast risks in the construction

industry, none present a technique to include the impact of risks on a project's cash flow. Therefore, cash flow forecasts tend to exceed the actual cash flow of a project due to inaccurate risk assessment.

Thus, this paper presents the Cash Flow Risk Index (CFRI) development process quantifying the impact of risks on a project's cash flow from an owner's perspective. To that end, the study explored the literature to identify the risk factors that might impact a construction projects' cash flow and uncovered 44 factors. The study also validated and consolidated these factors to build a CFRI via a Delphi exercise, which reduced the factors from 44 to 36. In further iterations, the 36 factors were also shared with 32 construction industry professionals to rate their relative importance on a five-point Likert scale, from which relative importance index and weights were obtained. As a result, the CFRI was developed to measure the impact of different risk factors on a typical construction project's cash flow.

27. EA Gordon, E Henry, BN Jorgensen - Review of Accounting 2017

International Financial Reporting Standards (IFRS) allow managers flexibility in classifying interest paid, interest received, and dividends received within operating, investing, or financing activities within the statement of cash flows. In contrast, U.S. Generally Accepted Accounting Principles (GAAP) requires these items to be classified as operating cash flows (OCF). Studying IFRS-reporting firms in 13 European countries, we document firms' cash-flow classification choices vary, with about 76, 60, and 57% of our sample classifying interest paid, interest received, and dividends received, respectively, in OCF.

Reported OCF under IFRS tends to exceed what would be reported under U.S. GAAP. We find the main determinants of OCF-enhancing classification choices are capital market incentives and other firm characteristics, including greater likelihood of financial distress, higher leverage, and accessing equity markets more frequently. In analyzing the consequences of reporting flexibility, we find some evidence that the market's assessment of the persistence of operating cash flows and accruals varies with the firm's classification choices and the results of certain OCF prediction models are sensitive to classification choices.

28. NM Kottayi, RB Mallick, JM Jacobs - Journal of Infrastructure 2019

An increase in the number of extreme weather events and gradual shifts in climate parameters due to a changing climate pose a serious threat to the nation's roadway infrastructure. A systematic approach is needed to define risks and assess consequences of climate change, consider the uncertainties, rank priorities, and initiate an adaptation strategy in a cost-effective manner.

The objective of this study is to develop a framework that could be used to assess the impact of climate change on pavements in a rational way using either the net present value (NPV) or the real option (RO) approach to compare several options

and to make the most prudent decision regarding selecting an option and the time of adopting that option.

The NPV approach will generally go against an investment in cases with high uncertainty, even if they are very promising, and does not take into account the flexibility or decisions that could be implemented on the basis of changing conditions. In contrast, the RO method offers a flexible deferment option when the uncertainties regarding outcomes are resolved to a certain extent.

A framework with a step-by-step method for evaluating the feasibility of building roads that are resilient to a changing climate is presented, along with an example. The worked-out example shows that there could be considerable value in using RO analysis, and this value can be leveraged to develop better economic policies for building roads that are resilient to a changing climate.

29. HL Yang - International Journal of Systems Science: Operations 2021

Many products deteriorate with time and have a maximum lifetime. An expiration date will be marked. And then the product will no longer be sold after the expiration date. Thereafter, the demand rate for the deteriorated item will near zero as its expiration date is due.

Thus, to consider the demand rate incorporates with the expiration date is practical. Furthermore, as the storage capacity is limited, the retailer needs to rent a warehouse to store the excess quantities than can be stored. Consequently, to consider a two-warehouse inventory model is necessary.

Nowadays, the supplier often provides a cash discount or permissible delay in payments to its retailers, if the order quantity attains a certain amount. Likewise, the retailer also provides a downstream trade credit period to his customers. In addition, the cost is usually affected by the present value of time.

For these reasons considered, a supplier-retailer-customer chain model here is established. The main task of this research is to find the optimal replenishment cycle and order quantity to keep the present value of the total relevant cost per unit time as minimum as possible. Numerical examples are performed for illustration and sensitivity analysis on the expiration date is conducted.

30. M Pavlović, Č Gligorić, poslovni magazine, 2021

Cash flows are one of the main indicators of liquidity and solvency of the company. In practice, the Statement of cash flows is very often done as "following document" to Balance sheet and Income statement.

This is wrong. The statement of cash flows can give the information to its users about the ability of the company to make cash. The balance sheet and Income statement, due to their accrual basis, are not saying anything about the cash flows of the accounting period, and that is why the Statement of cash flows is very important.

A good analysis of this statement can be the basis and support to the process of decision making both for internal and external users of financial information. In this paper we are presenting the methodology of the Statement of cash flows report analysis. The subject of this paper is the analysis of the Cash Flow Statement. The aim of this paper is to point out the importance of reporting on cash flows and its information capabilities to users of accounting information.

31. EM Egwu, FI Orugun - Asian Journal 2021

The study explored cash flow management for enterprise's business performance. The study specifically investigated SMEs' fulfilment of financial obligations through cash flow management, and determines the influence of cash flow management strategy on their performance in FCT Abuja. Survey research design was used. Data were gathered and analysed using the descriptive method and regression analysis.

Findings showed that cash flow management influences the fulfilment of financial obligations, and that cash flow management strategies influence the performance of enterprises in Abuja. The study concluded that cash flow is critical to the success of enterprises.

The study recommended that owners and managers of enterprises in Abuja should improve on their cash flow management, and that policy makers should incorporate strategy in management of cash flow framework to enhance improved performance.

32. C Hamdiyah, A Rizki - International Journal of Innovation, 2020

Using a sample of mining companies listed on the Indonesia Stock Exchange (BEI) over the period of 2014-16, this study aims to investigate the relationship of cash flow analysis and good corporate governance with financial distress. The cash flow analysis ratio includes $CFFO / TL$; $CFFI / TL$; $CFFF / TL$; $CFFO / TR$; and $CFFO / CL$. Good corporate governance is the composition of the board of commissioners, the ownership of institutional shares to the total shares, the ownership of shares of internal parties to the total shares and the composition of the audit committee.

The target of observation in this research is all mining sector companies based on set criteria. The logistic regression method, G-test and t-test are used to analyse the relationship between the variables. Our results show that one ratio of cash flow analysis shows the relationship between cash flow analysis and financial distress.

This study did not find any relationship between good corporate governance and financial distress. The results of this study contribute to investors and users of financial statements to consider the company's financial performance, especially

regarding the solvency of the company, because it is able to provide information on whether the company's long-term financial condition is healthy.

33. JE Boritz, LM Timoshenko - Behavioral Research 2022

Using verbal protocol analysis, this study examines how 21 experienced auditors from four different firms assess the seven key inputs in a discounted cash flow (DCF) model used by management to value goodwill. The analysis compares the auditors' processes against a theoretical model derived from an analysis of accounting and auditing standards and authoritative sources of valuation methodology and identifies systematic omissions and inaccurate applications of key audit steps.

It also relates those issues to audit outcomes at the individual input and the overall goodwill evaluation levels. The study's findings can help regulators, standard setters, practitioners and academics to better understand the limitations of auditors' competencies so that they can design strategies for mitigating them.

34. CS Maqfiroh, K Kusmuriyanto - Accounting Analysis Journal, 2018

The purpose of this research is to obtain empirical evidence concerning the influence of book tax differences, operating cash flow, leverage, and firm size to earnings persistence. Population in this research is company of consumer goods industry sector which registered in Indonesia Stock Exchange in 2011-2016.

Years observed are 2012-2015. Sampling technique is using purposive sampling, gained 22 samples out of 33 companies. There are 85 units of analysis in this study. The analysis techniques used are descriptive statistic and multiple regression by using SPSS program.

The result of the research shows that book tax differences indicated by large negative book tax differences has significant and negative influence on earnings persistence. Besides, large positive book tax difference has no influence on earnings persistence.

Operating cash flow and firm size in this study are proved to have no influence on earnings persistence. Leverage is proved to have negative and significant influence on the persistence of earnings. The conclusion of this research is that earnings persistence is influenced by large negative book tax difference and leverage.

35. DV NGUYEN, DQ DANG, GH PHAM - The Journal of Asian 2020

CEOs Overconfidence can bring potentially risky early decisions to businesses, along with large enterprise free cash flow that can bring different investment decisions with CEOs Overconfidence. Especially in the context of Vietnamese enterprises, CEOs are often influenced by behavioral psychology about overconfidence in investment decisions (due to individual cultural characteristics as

well as operating financial markets also depend on many factors outside the market).

Therefore, the authors study the impact of overconfidence and cash flow on investment in Vietnamese to find the internal relationship between these three factors in the financial environment in Vietnam. With 480 companies listed on the Vietnam Stock Exchange from 2014 to 2018 (companies have continuous reports), the regression analysis results with panel data (FEM, GLS models, correction of robust and GMM dealing with endogenous problems) have shown Overconfidence has a positive impact on investment. At the same time, the results also indicated that enterprises with overconfident CEOs and large cash flows tend to invest less than enterprises with low cash flow.

The results of this study have shown the behavioral behavior of CEOs in Vietnamese enterprises that exist under both prospect theory and effective market theory.

36. R Myšková, P Hájek - Journal of International Studies, volume 10, 2017

Indicators of financial performance, especially financial ratio analysis, have become important financial decision-support information used by firm management and other stakeholders to assess financial stability and growth potential. However, additional information may be hidden in management communication. The article deals with the analysis of the annual reports of U.S. firms from both points of view, a financial one based on a set of financial ratios, and a linguistic one based on the analysis of other information presented by firms in their annual reports.

Spearman correlation coefficient is used to compare the values of financial and linguistic indicators. For the purpose of the comprehensive assessment, novel word lists are proposed, specifically designed for each category of financial analysis. The aim is to assess the information ability of annual reports and whether successful firms present their results precisely or not. The results show that the proposed topic dictionaries can be beneficial, especially for the assessment of cash flow and leverage ratios.

37. Z Novak Pintarič, Z Kravanja - Journal of Sustainable Development of 2017

This study illustrates how to properly apply the discounted cash flow methodology when assessing and planning energy and chemical manufacturing facilities. These procedures typically correspond to lengthy, capital-intensive undertakings. Simple economic criteria, such as profit or production cost, are inappropriate for this form of decision-making because they undervalue the viability of the analysed plants and do not account for the time value of money.

This study demonstrates how some of the criteria based on discounted cash flows provide acceptable trade-offs between profitability and long-term cash flow generation. It is demonstrated how to appropriately rank mutually exclusive alternatives and how to choose the best option from them because multiple alternative possibilities are typically reviewed in concurrently.

38. A Afiezan, G Wijaya, C Claudia -International Research 2020

In the current economic development, manufacturing companies are required to be able to compete in the industrial world. Manufacturing companies need to invest to increase the company's business capital. To invest, various kinds of information about the issuer are needed, both company performance information in the form of financial statements or other relevant information. The economic development of a country can be measured in many ways, one of which is by knowing the level of world capital market development. (Angelia and Toni, 2020).

The manufacturing industry plays a very important and strategic role in contributing Gross Domestic Product (GDP) to the national economy and labor absorption. This study is aimed at analyzing factors influencing labor absorption of the manufacturing industry. (Pramusinto and Daerobi, 2020). The fact of the misuse of debt can also be seen from a company that has been established since 1919, namely Nyonya Meneer having to accept the fact that the company was declared bankrupt because it failed to pay its debt to creditors amounting to 7 billion.

39. N Burgess - Available at SSRN 3851351, 2021

In this paper we outline how to value private companies and work through a real case study. The corporate finance and valuation techniques on display can be used to value any private company or project that is illiquid with little or no market data. Together with this paper we provide the full background information for the case study, including consolidated balance sheet, cash flow and income statements and an Excel workbook with a full valuation breakdown.

Two valuation approaches are presented. The first approach is called 'multiples' and requires we first identify sensible comparable companies with public data and can serve as a reasonable proxy for our underlying firm or project. Known proxy enterprise values are converted into multiples of EBITDA and extrapolated to value the private company or project of interest.

Enterprise value can be measured as a multiple of sales, earnings, EBITDA, EBIAT and many income factors. Typically practitioners measure enterprise value as a multiple of EBITDA to exclude sales margin, capital structure, debt and leverage and other idiosyncratic biases.

40. E Adu-Ameyaw, A Danso, M Uddin Journal of Finance 2022

In this study, we examine whether investments in fixed (identifiable) intangible assets and tangible assets are sensitive to cash flow and the extent to which this sensitivity differs for firms with different levels of financial constraints. Using both UK private and public firms' data, our overall analysis shows strong positive (negative) effects of cash flow on intangible assets (tangible assets) investments.

When we split the data on the basis of listing status, we observe that cash flow is positively (negatively) and significantly related to intangible assets (tangible assets) investments for private firms but not so for public firms. In addition, we further observe that both public and private firms' investments follow a similar pattern when we split our data based on the availability of internal funds.

Moreover, we also find that the sensitivity of investment (identifiable intangible assets) to cash flow is higher for young and large private firms but lower for small and old ones. Our results remain similar to other econometric specifications, which account for possible endogeneity issues.

41. Frankalin (2018)

he has completed and proved through studies that for the results of increment in the functional cashflow the main reason will be day by day spreading capital diminution. Especially if any diminution in current assets and hike in the current debit will finally give rise in the cash flow from the operations.

Franklin further noticed that there will be an appreciable diminution in capital and all of manager intentions to encourage from specific margin for the purpose of functional cashflows. So the manager will aim at diminishing the spreading of the capital in respect to utilize for fulfilling the appropriate targets of the functional cashflow.

With this it can also be notified that if there are any of contractual encouragement made for the purpose of alteration of accounts of a firm and the statement shows that governing body of cashflow is more in common companies. In finding allowance contracts for managers and their encouragements can be got in the subject of "Circulating capital".

42. Lazarides (2019)

He provided that if possibility of investing with a higher sum of amount will be increasing with availability of money in surplus sum. We can see a number of executions which could be engaged for paradigm of money, as a ligament transfer, Automotive Clearing House (ACH), conveyance and assessment. Trade can be carried on between two factors value and period.

43. Eljely (2019)

He constituted a credit entry index with a loaner in a way for managing the flow of money and for preventing disadvantages. Many of the firms have built an index of covering of credit in those periods when sales event is falling shortened or disbursement will be running higher. For the utility of producing an extra liquidity and management of money for which they are necessary during a down month they could be used for short period loan.

44. Kimabowa (2020)

He noted that the organizational profitability has been affected by the factors such as cost of input, management of cashflows, government policy and borrowing culture. If the school relies more on loans, costs such as interest rates will not be prevented and this has a unsupportive result on the profitable condition of a firm

45. Ker Dunkan Euromoney (2019)

in correspondent banking is the provision by the banking of the service such as the payment of cash management and trade finance to the customers via other banks has being the primary channel for the purpose of delivery of cross border service for many years.

46. Johnson (2019)

He has found as it is crucial to differentiate betwixt management of a true cash and much generic topic of a liquidity managing. The differentiation will become a reference for creation misleads as a term cash is used in dual antithetic terms. Firstly its having a literal meaning that is actual cash in hand. Sometimes the financial manager generally used the word cash to elaborate the possession of a firms cash on its saleable instruments.

By creating distinction between liquidity management and management of a cash is directly will be an addition to a liquidities management business an optimum measure of a liquid asset associate contract. Managing of a cash is intimately affiliated for the purpose of optimization mechanisms for collection and distribution of cash and it is the subject that we are focusing primarily.

47. Pandey (2020)

According to him Cash is nothing but the money that a company used to pay by not having whatsoever restrictions. The terms coin, currency and cheque can also be termed as a cash. These are clenched by a firm and excess of a remaining balances of money would be deposited into a bank account opened by a firm.

Sometimes cash can be also termed as close money units for example saleable bonds and time deposits made into a bank. Pandey further noted that management of a cash is involved with managing the flows of cash inside of a firm and outside of a firm, cashflows inside a business unit and cash scale lent by company at a period of supporting of financing of shortfall of excess cash balance.

48. Asahari (2021)

at the singapore stock exchange organization by conducting an investigation under an efficient elements of managing of profits among all of the recognized business units he has analyzed that applicable any of the applicatory element of how to manage the profit arises from the activities of a firm.

The investigation conducted by him primarily considers 4 concepts of examining magnitude difference, gainfulness, manufacturing unit and nationality of management of earnings. The results which got lastly from above quoted concepts will eventually displays high level of management of income will be relevant for all those firms which have less profit margin. Finally it can be known that the effects of manufacturing units and much involvement of a firm with higher risks in cause. The status of nationality has an effectual on managing of income but magnitude of a company will not make impression on it.

49. Milton & Scand (2019)

He made a research and finally investigated a affirmative betwixt day to day variation in functional cashflows by taking into the consideration statement of 3 month period and also he took various scales of supply of a financial needs from some of a overseas countries including the debit prices. This will be a mark of this truth that if there is a high variations in cashflow which will directly affect on high debit prices of a firm. They also displays that if a firm is dealing with low value of variations will drive a high debit prices for an institution. They shown that the firms having lower operational cashflow would aims at a high cash flow alterations. Results of an crucial factor for an capitalist will be frequency of the cashflows and and the interactions between the cashflows and the further fluctuations.

50. Jiyang (2017)

He provided some proofs for finding the positively operational cash flows and obtaining of their approximation and applicable dividends and money contents for a companies which may implement cash flows management. He discovered that a non-deviant portions of a cash flow having a lesser rigid status in the 28 ground of literary study record about functional cash flow. This will become a conformation non-rigid management of a functional cash flow with a lower quality.

2.2 Theoretical background and review

Cash Flows Statement

The statement of cash flows, also known as a cash flows statement, is one of the financial documents that provides a clear picture of how changes to the balance sheet account and gains affect cash and cash equivalents. The statement will divide the analysis into three main categories: operating, investing, and financing activities. This claim is made in reference to or concerned with the movement of money within and outside of the company. The statement will include the current operating results as well as any changes to the balance sheet. The statement is highly helpful in determining the company's short-term viability and, peculiarly, its ability to pay.

Persons and units who are curious about cash flows statement are:

1. Latent borrowers or creditors are those who are interested in learning about a company's ability to pay back its obligations.
2. The reporting staff is responsible for examining the company's capacity to manage its paysheet and any other related disbursement.
3. Bridge players or prospective employees are the ones who are most interested in learning whether a company can pay commissions on schedule.
4. Prospective investors are those who carefully consider whether a company is financially sound or not.
5. Stakeholders or stockholders of the firm

Previously known as a flows of funds statement, a statement is now known as a cash flows statement. This assertion reflects the firm's liquidity position in its purest form. The cash flows statement can be seen of as a clear representation of the types of financial innovation that an induces at a particular point in time, whereas the financial gains statement elaborates a firm's financial transactions over a predetermined period of time. The accumulative basis of accounting, which is employed in a company to equate the item that creates the income to the total income, is indicated by cash flow statements and the income argument.

Cash flows statements take into account the inflow and outflow of the value of cash and cash equivalents, and they will exclude any transactions that do not immediately affect the amount received and all of the payments made. A cash ground

examination of three 18 types of activity (operation, financial, and investment), as well as non-cash activity, is what a cash flows statement is.

Cash Flows Activity:

Cash flows statement is mainly divided into three main activities

1. Cash flows resulting from the operating activity.
2. Cash flows resulting from the investing activity.
3. Cash flows resulting from the financing activity.

Operating Activity:

This comprises displaying, marketing, and transferring the company's products, as well as collecting customer money. Transporting the product, purchasing raw materials, creating an inventory, and publicity are all part of the operating activity.

Under International Accounting Standard operating activity of cash flow

Statement having the following items:

1. Interest which is accepted on loan.
2. Paid to workers or paid on lieu of workers.
3. Received for the purpose of selling of loan, debt or equity instruments in a trade listings.
4. Purchasing of goods.
5. Paid to the distributors of goods and services.
6. Payments of interest.

Items which are added back to the net income figure to arrive at cash flows from operating activities basically includes the following items:

1. Depreciation.
2. Postponed tax.
3. Amortization.
4. Any profit or loss connected with the selling of a non-current assets related cash flow does not belong to an operative segment.
5. Dividend accepted.

Investing Activities:

Examples for the investing activity are:

1. Payment made for the purpose of merger and acquisition.
2. Loans made to providers or took from the clients.
3. Buying or selling of an asset.

Financing Activity:

The capital that businesses raise for their transactions and external expansion constitute all financing activity. This activity excludes financing for the company's internal operations. The parties who are eager in learning how the firm is spending its current cash effectively and how successfully a firm can raise funds for its impending proceedings are all investors and the firms' creditors. The financing activities part of the cash flows statement helps accurately determine the firm's liquidity.

Financing activities includes following items:

1. Nett borrowing.
2. Repayment of the debt principal amount including the capital leases.
3. Dividend payment.
4. Selling or repurchasing the stocks of the firm.

Preparation modes of the cash flow statement

The cash flows statement can be prepared in a direct manner, which makes it very simple to interpret. However, Financial Accounting Standards 95 requires a subsidiary statement to indirect mode if a firm chooses to construct cash flow statement in this manner, despite the fact that indirect mode will be widely utilised throughout the world.

Direct Mode

Major classes of gross cash receipts and payments are reported using the direct approach for constructing a cash flow statement. Dividends may be recorded under operating activities or investing activities under IAS 7.

The taxes paid are recorded under operating activities if they are directly related to such operations. Taxes that are aimed at financing or operating activities are

described as funding or 20 investing activities. International Financial Reporting Standards (IFRS) are different from generally accepted accounting principles (GAAP).

Dividends obtained from an organization's investing activities are classified as an operating activity, not an investing activity, under GAAP regulations.

Sample format of the cash flow statement with the help of direct method.

Cash flow from the operating activity		
Cash received from the client	XXXX	
Cash payment to provider and worker	XXXX	
Cash made from from the dealing (total)	XXXX	
Interest payments	XXXX	
IT payment	XXXX	
Nett cash flow from the operating activity		XXXX
Cash flow from the investing activity		
Returns from the selling of an equipment	XXXX	
Dividend accepted	XXXX	
Net cash flow from the investing activity		XXXX
Cash flows from the financing activity		
Dividend payment	XXXX	
Net cash flow from the financing activity		XXXX
Nett addition in cash and cash equals		XXXX
Cash and cash equals, opening of the year		XXXX
Cash and cash equals, end of the year		XXXX

Indirect Mode

Using net gain as a starting point, the indirect mode makes improvements for all of the carry outs from the non-cash based trading. Gain from the asset account is deducted from the net gain, and the increase in the susceptibility account is added back to the net gain. By applying a series of additions and subtractions, an indirect method tries to turn the accumulation basis of net gain into cash flows.

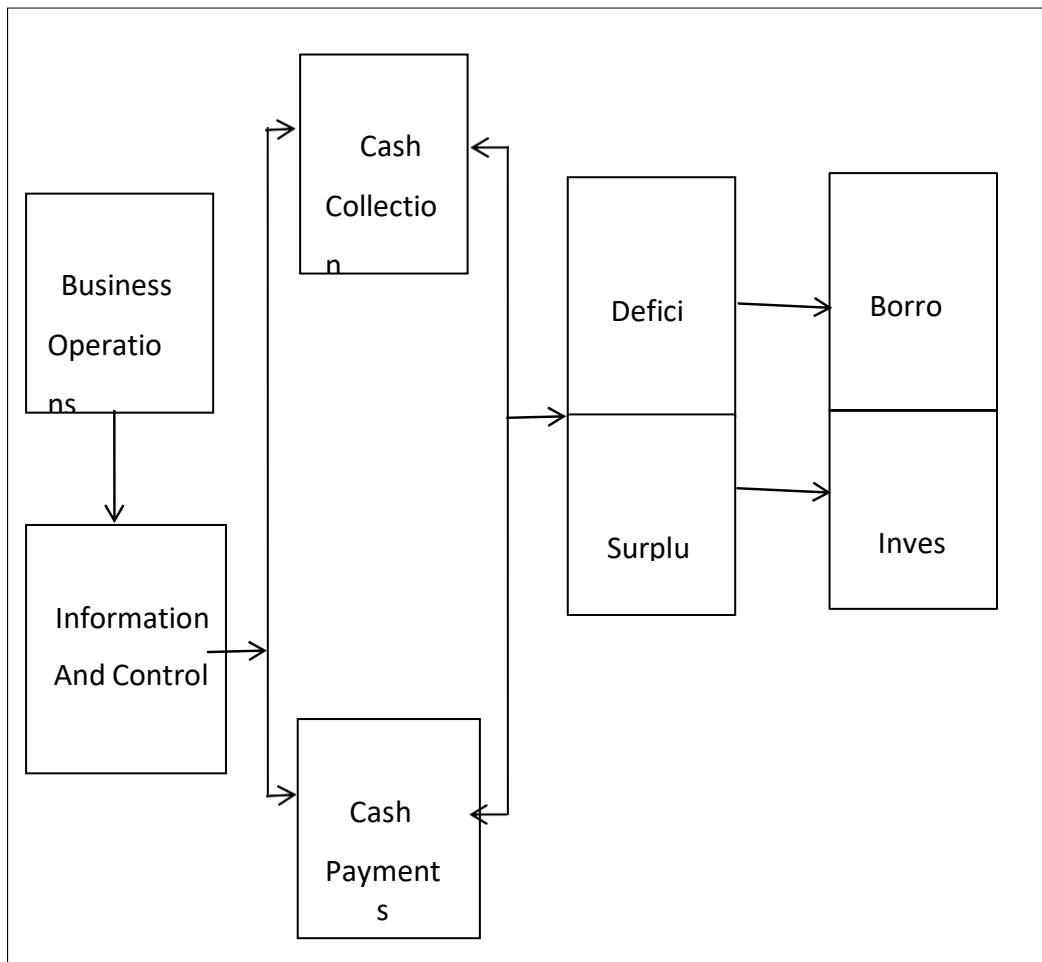
Sample format of the cash flow statement with the help of indirect mode.

XYZ co. Limited. Cash Flow Statement			
	31 st March		
Period ending	2015	2016	2017
Net income	xxxx	xxxx	xxxx
Operating activities, cash flow provided by or used in:			
Diminution or reduction	xxx	xxx	xxx
Corrections for net gain	xxx	xxx	xxx
Lessening (addition) in accounts receivables	xxx	xxx	xxx
Gain (lessening) in liabilities (A/P, tax has to be paid)	xxx	xxx	xxx
Drop-off (addition) in stock	xxx	xxx	xxx
Growth (decrement) in other operating activity	xxx	xxx	xxx
Net cash flows from the operating activity	xxx	xxx	xxx
Investing activity, cash flow provided or used			
Capital outlay	xxx	xxx	xxx
investments	xxx	xxx	xxx
Other cash flow from the investing activity	xxx	xxx	xxx
Nett cash flow from the investing activity	xxx	xxx	xxx
Financing activities, cash flow provided by or used in			
Dividends remunerated	xxx	xxx	xxx
Sales event (repurchase) of inventory	xxx	xxx	xxx
Growth (decrement) in obligation	xxx	xxx	xxx
Cash flow from the financing activity	xxx	xxx	xxx
Nett cash flow from financing activity	xxx	xxx	xxx
Effect on exchange rates change	xxx	xxx	xxx
Net growth (decrease) in cash and cash equals	xxx	xxx	xxx

Cash flow management needs to carry out three important classic tasks:

1. Monitor cash position: current income and expenditure assessment.
2. Management of cash balances: cash has turned to regional areas where a deficit area and investment of excess cash surplus from profit making activities.
3. Interest rate risk management practices and communication mobility

CASH MANAGEMENT CYCLE:



Importance of Statement of cash flows:

1. An organisation can learn about the operating activities, or the net difference between the net cash flow, through the cash flow statement.
2. Through its expanded operating activities, it assists the organisation in arranging additional funding for the company.
3. It helps the firm to find-out if there is any requirement of financial assistance from outside.
4. It helps to know the strength and weakness of the company.
5. It will reveal the size and sector in which the cash flow of the business with reference to different speeds.

CHAPTER-3

RESEARCH DESIGN

3.1 INTRODUCTION

The project is entitled as “A study on cash flow analysis at Tube Investments India Limited”. As this is a Company Based Finance project secondary data of the company that is available in the company’s website is used. The 5 Years balance sheet of the company is being used for this project.

3.2 RESEARCH DESIGN

The study will be descriptive type with a quantitative approach is employed for the analysis of the data collected.

Data sources and Sampling design:

To achieve the objective of Cash Flow analysis, data of Tube Investment India Limited have been gathered.

3.3 SOURCE OF DATA

Research methodological analysis applied for the purpose of studying the theme is mainly of two types

1. Primary
2. Secondary

PRIMARY:

1. In primary content we will use a fresh form of records which has been used for first time use and it indicates Germinal records of an institution.
2. In this project the primary data has been taken from the staffs of Tube Investment India Limited and guide of the project.
3. Information will be collected with the help of auditor of the firm.
4. Observation method was has been used for understanding various tools used in Logistic Management and their features.

SECONDARY:

The secondary contents will be majorly interpreted from various web site, publication, periodical, etc.

3.4 TOOLS FOR THE STUDY

The cash inflows and outflows within a given period are shown on the cash flow statement, which aids in determining the sources and uses of cash.

Total cash flow = Cash from Operations + Cash from investing + Cash from Financing

3.5 PERIOD OF STUDY

The project is completed within the time span of 10-12 weeks of study and also with the help of employees at Tube Investments India.

CHAPTER 4
ANALYSIS AND
INTERPRETATION

4.1 Data Analysis and Interpretation:

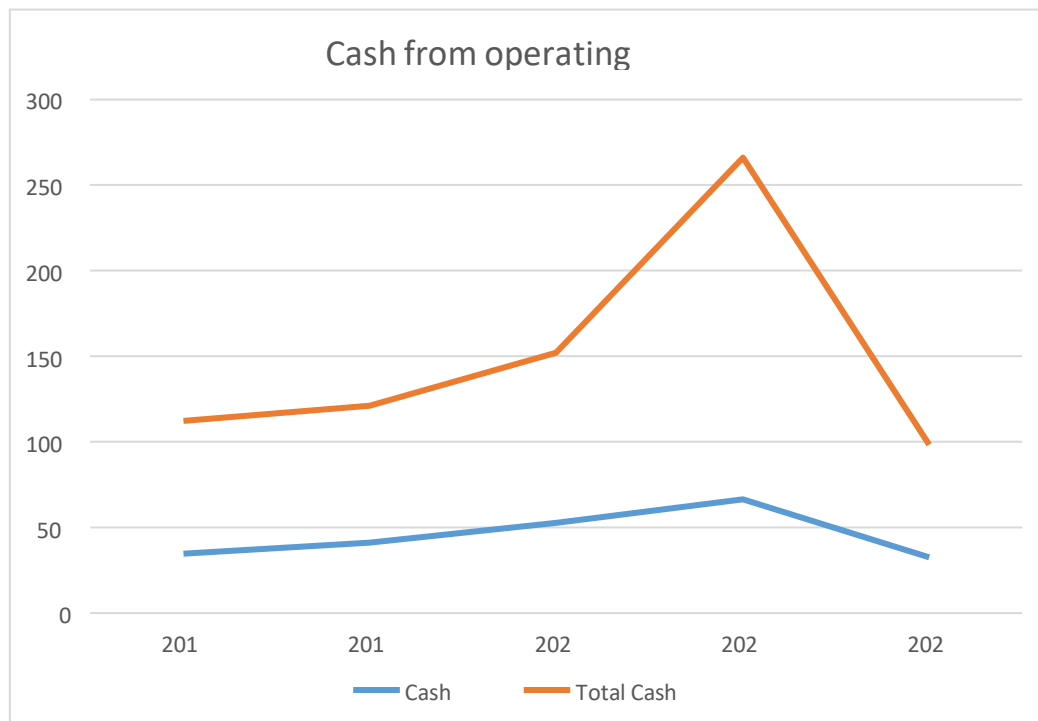
4.1.1 Table indicating cash flow from operating activities to total cash flow

YEAR	CASH FLOW	TOTAL CASH FLOW	PERCENTAGE
2018	347.41	774.18	44.87
2019	411.18	800.4	51.37
2020	527.72	994.67	53.05
2021	664.77	1996.38	33.24
2022	325.82	657.87	49.52

INTREPRATION:

From the above table and chart it is understood that the cash flow from operating activities of the firm is less in the year ending 31st March 2021 with 33.29%. Cash flow of 664.77 cr and total cash flow 1996.38 cr. the cash flow from operating activities is more for the year ending 31st March 2020 cash flow is 527.72 Cr cash flow and total cash flow 9 94.67 with 53.05%.

4.1.1 Chart indicating cash flow from operating activities to total cash flow



Inference:

The cash flow and total cash flow from operations is high in the year 2021

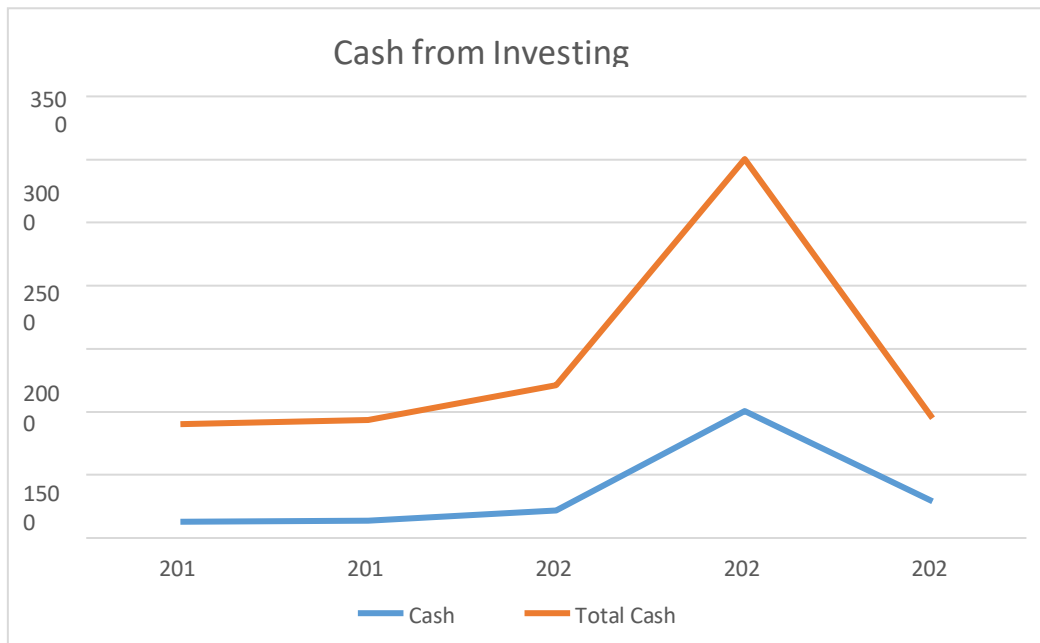
4.1.2 Table indicating cash flow from investing activities to total cash flow

YEAR	CASH FLOW	TOTAL CASH FLOW	PERCENTAGE
2018	127.66	774.18	16.48
2019	134.44	800.34	16.79
2020	217.54	994.67	21.87
2021	1005.51	1996.38	50.36
2022	290.40	657.87	44.14

INTERPRETATION:

From the book table and chart it is understood that the cash flow from investing activities of the firm is less in the year ending 31st March 2028 with 16.48% and Cash flow of 127.66 cr and total cash flow of 774.18 cr. the cash flow from investing activities is more for the year ending 31st March 2020 is 1005.51 Cr cash flow and total cash flow 1996.38 with 50.36%.

4.1.2 Chart indicating cash flow from investing activities to total cash flow.



Inference:

The cash flow and total cash flow from investing is high in the year 2021

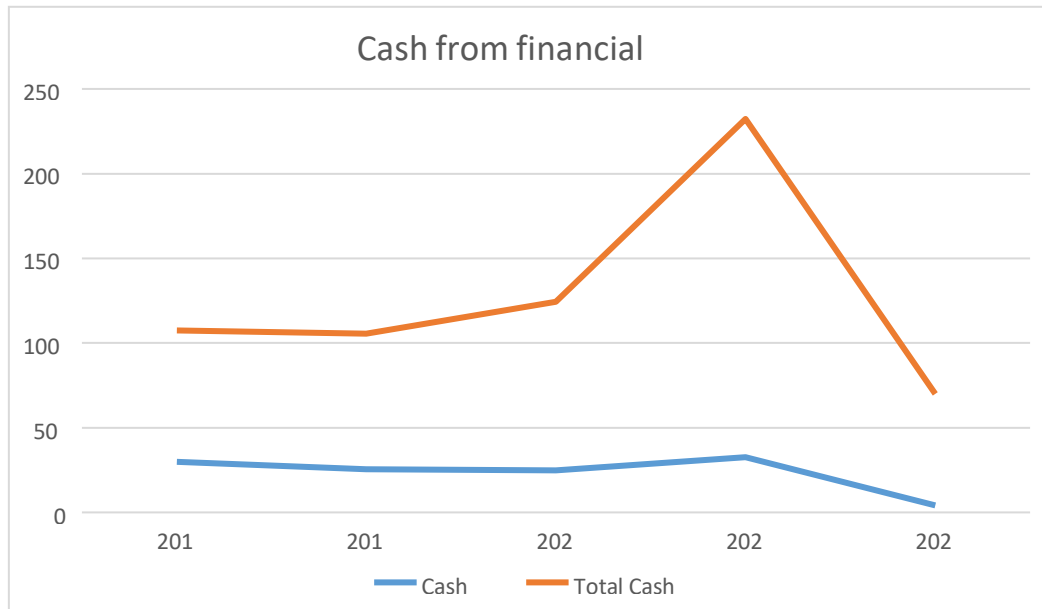
4.1.3 Table indicating cash flow from financial activities to total cash flow

YEAR	CASH FLOW	TOTAL CASH FLOW	PERCENTAGE
2018	299.11	774.18	38.64
2019	254.72	800.34	31.82
2020	249.41	994.67	25.07
2021	326.10	1996.38	16.33
2022	41.65	657.87	6.33

INTERPRETATION:

From about table and chart it is understood that the cash flow from financial activities is less in the year ended 31st March 2022 with 6.33%. The cash flow is 41.65 cr and total cash flow is 657.87 cr. The cash flow from financial activities is more in the year ended 31st March 2018 with 33.28 cr the cash flow is 290.81 and total cash flow is 873.79 cr.

4.1.3 Chart indicating cash flow from financial activities to total cash flow



Inference:

The cash flow and total cash flow from financial activities is high in the year 2021

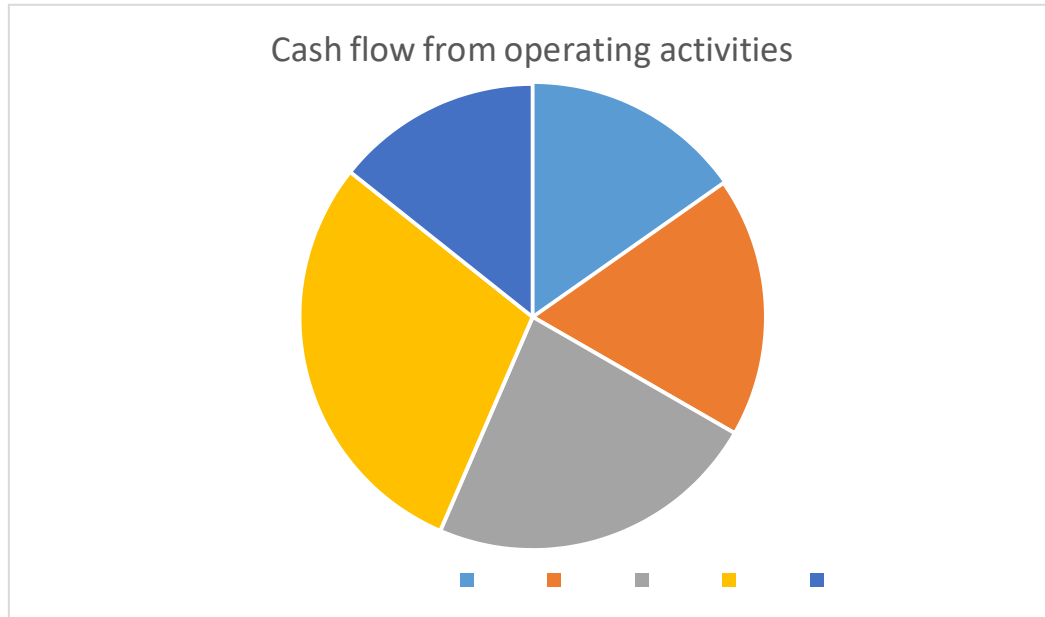
4.1.4 Table indicating cash flow from operating activities

YEAR	CASH FLOW
2018	347.41
2019	411.18
2020	527.72
2021	664.72
2022	325.82

INTERPRETATION:

From about table and chart it is understood that the cash flow from financial activities is less in the year ended 31st March 2022 with 6.33%. The cash flow is 41.65 cr and total cash flow is 657.87 cr. The cash flow from financial activities is more in the year ended 31st March 2018 with 33.28 cr the cash flow is 290.81 and total cash flow is 873.79 cr.

4.1.4 Chart indicating cash flow from operating activities



Inference:

The cash flow from operating activities is high in the year 2021 with 29%.

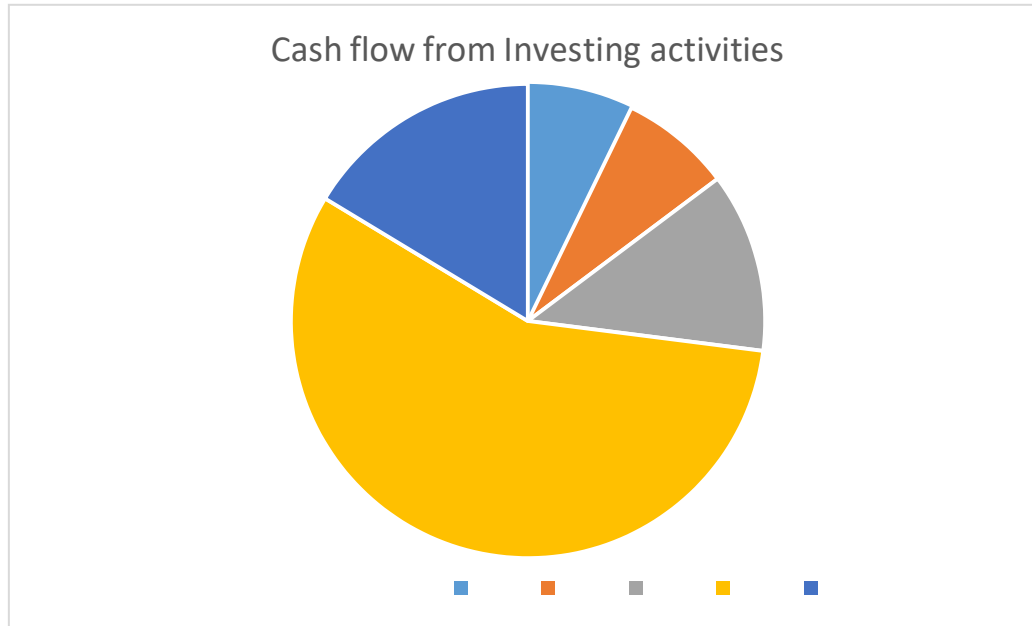
4.1.5 Table indicating cash flow from investing activities

YEAR	CASH FLOW
2018	127.66
2019	134.44
2020	217.54
2021	1005.51
2022	290.40

INTERPRETATION:

From the above table and chart we can say that the cash flow is increasing from the year 2020 March 31 and 2021 March 31. But due to covid and shut down the cash flow from investing activities has been decreased in the year 31st March 2022.

4.1.5 Chart indicating cash flow from investing activities



Inference:

The cash flow from investing activities is high in the year 2021 with 57%.

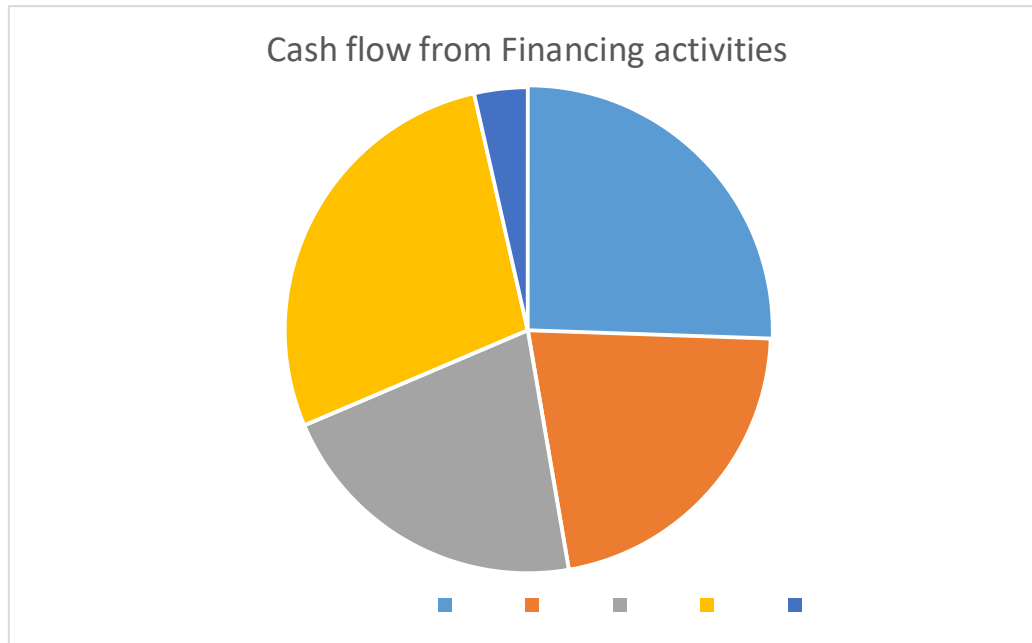
4.1.6 Table indicating cash flow from financial activities

YEAR	CASH FLOW
2018	299.11
2019	254.72
2020	249.41
2021	326.10
2022	41.65

INTERPRETATION:

From the above table, we can say that the cash flow financial activity has been decreased in the year 2019 from 2018 and further reduced by small margin in 2020 and saw a drastic increase in financial activities in the year 2021 and then there is sudden and large decrease in the year 2022.

4.1.6 Chart indicating cash flow from investing activities



Inference: The cash flow from financial activities is high in the year 2021 with 28%.

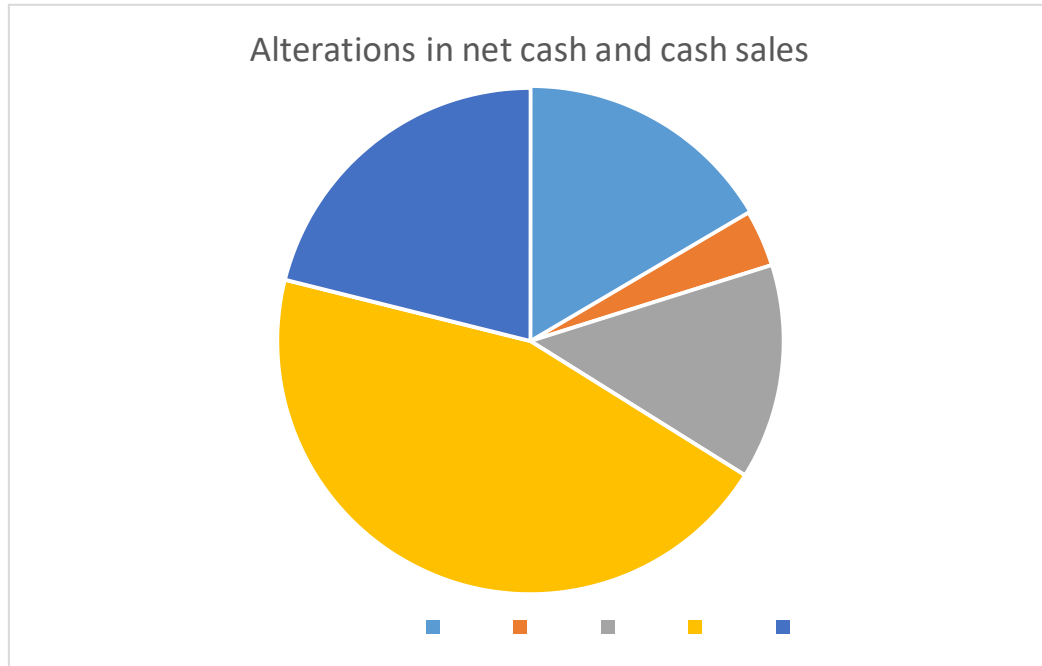
4.1.7 Table indicating alterations in net cash and cash sales

YEAR	CASH FLOW
2018	79.36
2019	17.38
2020	66.05
2021	216.06
2022	101.35

INTERPRETATION:

From the about table and chart we can say that the net cash and cash equals was 80.75 in the year 2018 March 31 but decrease to 22.02 in 2019 March 31. it is again increased in 2020 it has started to decline in 2021 and for the decrease to 6.23 in 2022.

4.1.7 Chart indicating alterations in net cash and cash sales



Inference:

The alterations in net cash and net cash sales is high in the year 2021 with 28%.

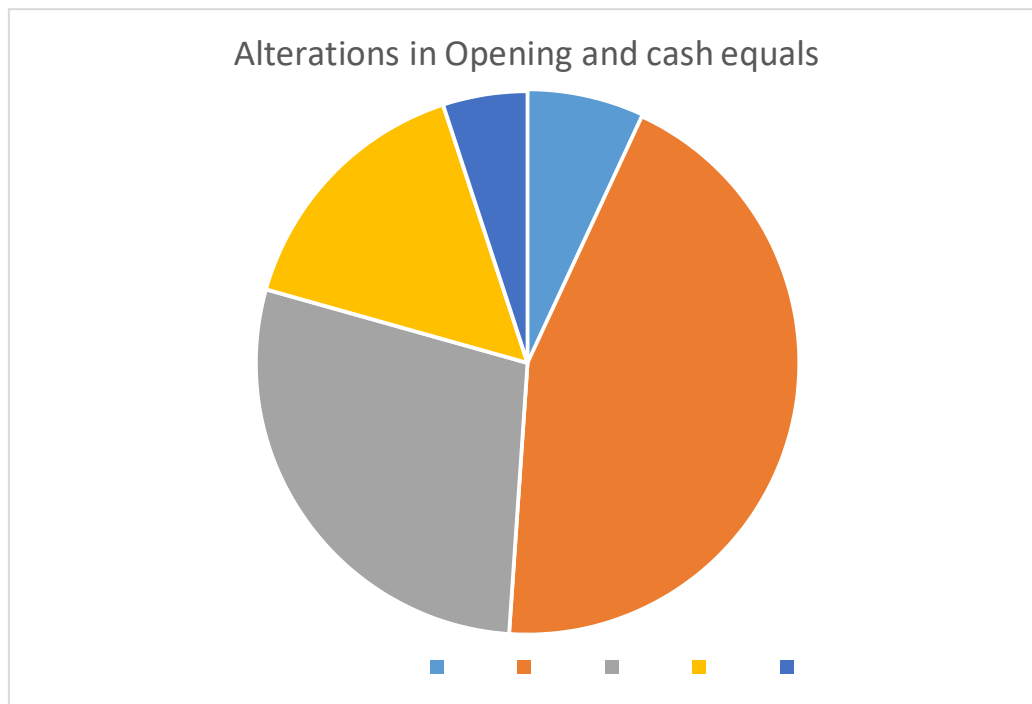
4.1.8 Table indicating alterations in opening cash and cash equals

YEAR	CASH FLOW
2018	9.57
2019	61.18
2020	39.16
2021	21.61
2022	6.97

INTERPRETATION:

In 31st March 2018 the cash and cash equals are 14.36 2019 it's a rapid increase to 61.18 and in 2020 it was reduced to 39.16 and reduced to further to 21.61 in 2021. It saw an all time low of 6.97 in 2022.

4.1.8 Chart indicating alterations in opening cash and cash equals



Inference:

The alterations in opening cash and cash equals is high in the year 2019 with 44%.

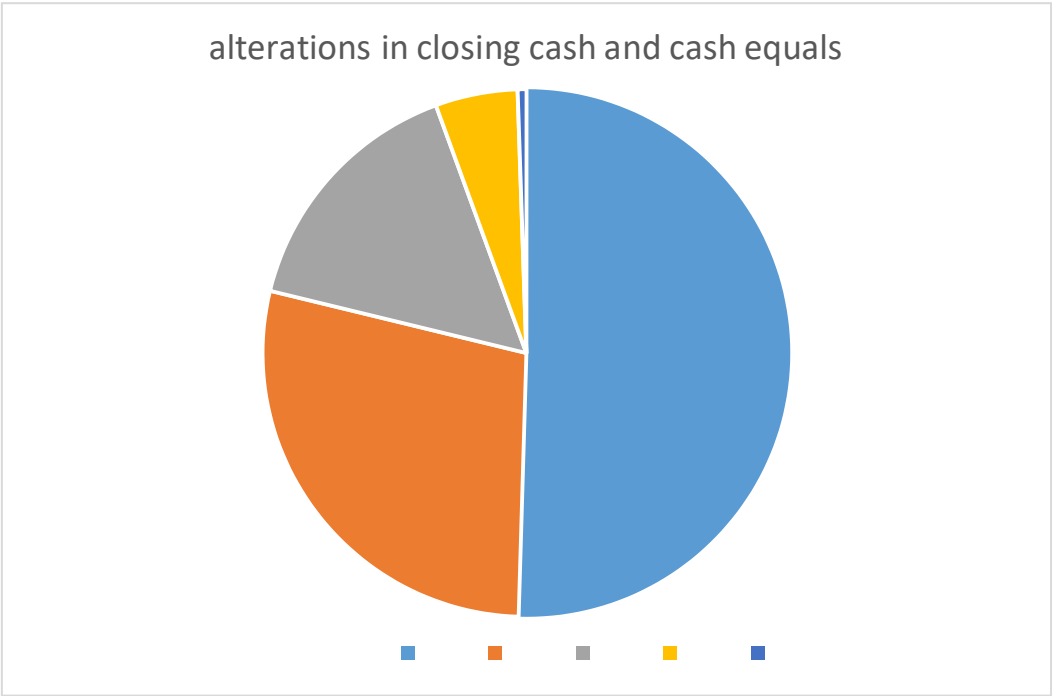
4.1.9 Table indicating alterations in closing cash and cash equals

YEAR	CASH FLOW
2018	69.79
2019	39.16
2020	21.61
2021	6.97
2022	0.74

INTERPRETATION:

In 2018 closing cash balance is 57.08 and there is for the decline in the value 39.16 in 2019, 21.61 in 2020 and 6.97 in 2021 and further it is reduced to 0.74 in 2022.

4.1.9 Table indicating alterations in closing cash and cash equals



Inference:

The alterations in closing cash and cash equals is high in the year 2022 with 50%.

CHAPTER 5
SUMMARY OF FINDINGS,
CONCLUSION AND SUGGESTIONS

5.1 Findings:

1. From the above table and chart it is understood that the cash flow from operating activities of the firm is less in the year ending 31st March 2021 with 33.29%. Cash flow of 664.77 cr and total cash flow 1996.38 cr. the cash flow from operating activities is more for the year ending 31st March 2020 cash flow is 527.72 Cr cash flow and total cash flow 9 94.67 with 53.05%.
2. From the above table and chart it is understood that the cash flow from investing activities of the firm is less in the year ending 31st March 2028 with 16.48% and Cash flow of 127.66 cr and total cash flow of 774.18 cr. the cash flow from investing activities is more for the year ending 31st March 2020 is 1005.51 Cr cash flow and total cash flow 1996.38 with 50.36%.
3. From above table and chart it is understood that the cash flow from financial activities is less in the year ended 31st March 2022 with 6.33%. The cash flow is 41.65 cr and total cash flow is 657.87 cr. The cash flow from financial activities is more in the year ended 31st March 2018 with 33.28 cr the cash flow is 290.81 and total cash flow is 873.79 cr.
4. From about table and chart it is understood that the cash flow from financial activities is less in the year ended 31st March 2022 with 6.33%. The cash flow is 41.65 cr and total cash flow is 657.87 cr. The cash flow from financial activities is more in the year ended 31st March 2018 with 33.28 cr the cash flow is 290.81 and total cash flow is 873.79 cr.
5. From the above table and chart we can say that the cash flow is increasing from the year 2020 March 31 and 2021 March 31. But due to covid and shut down the cash flow from investing activities has been decreased in the year 31st March 2022.
6. From above table we can say that the cash flow financial activity has been decreased in the year 2019 from 2018 and further reduced by small margin in 2020 and saw a drastic increase in financial activities in the year 2021 and then there is sudden and large decrease in the year 2022.
7. From the about table and chart we can say that the net cash and cash equals was 80.75 in the year 2018 March 31 but decrease to 22.02 in 2019 March 31. it is again increased in 2020 it has started to decline in 2021 and for the decrease to 6.23 in 2022.

8. In 31st March 2018 the cash and cash equivalents are 14.36 2019 it's a rapid increase to 61.18 and in 2020 it was reduced to 39.16 and reduced to further to 21.61 in 2021. It saw an all time low of 6.97 in 2022.

9. In 2018 closing cash balance is 57.08 and there is for the decline in the value 39.16 in 2019, 21.61 in 2020 and 6.97 in 2021 and further it is reduced to 0.74 in 2022.

5.2 Suggestions

As I found that the companies financial position is very good, but I found some areas during my analysis which gives a sharp alarm for the firm to have an effective cash management.

- In order to increase efficiency in the delivery of services and, in turn, increase profit, I advise the company to develop and implement an effective management strategy.
- For the increase of profit the firm must make an alternative plans.
- The company must diverge its plan into other areas such as EV's etc.
- The firm should make market research at an regular intervals which could help the firm in increasing the demand for the sales and services.
- It would be suggested to the firm to replace the fixed assets with the new and modern and improved technology which helps in reducing the idle capacity and increase the overall stability and which would help in earning high returns.
- The firm should try to decrease its liability through payback of all the debts which will results in high interest payment.
- The company should implement innovative advertising strategies to promote its sales and enhance its reach.

- The firm should form a research and development department to update with the recent trends in global competitive market.

- It is suggested to the firm to increase its fleet to give equal competition to its competitors.

5.3 Conclusion:

The process of managing financial risk has been going on for a while.

It is necessary to develop and improve new strategies in order to transform the market.

Changes in consumer expectations, charges in the corporate environment, or potential changes in the global environment can all be considered as reflections of refinement.

In general way the following will summarize the process.

- > Prioritizing and identifying the key financial risks.
- > Appropriate level of risk tolerance should be determined.
- > In accordance with the policy the risk management strategy should be implemented.

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ANNEXURE

BALANCE SHEET

Cash flow statement for the year ended 31-Mar-2018

Particulars	₹ in Crores	
	Year Ended 31-Mar-2018	Year Ended 31-Mar-2017
A. Cash Flow from Operating Activities:		
Profit Before Tax	226.91	228.55
Adjustments to reconcile Profit Before Tax to Net Cash Flows:		
Depreciation on Property, Plant and Equipment	153.37	150.51
Depreciation on Investment Properties	0.17	0.15
Share based payment expenses	5.43	-
Profit on Property, Plant and Equipment sold /discarded (Net)	(1.35)	(1.19)
Profit on Sale of Investments carried at FVTPL	(2.84)	(11.55)
Provision / (Reversal of Provision) for Trade Receivables (Net)	1.60	(4.52)
Bad debts written off	0.88	-
Net Foreign Exchange differences	0.30	(0.54)
Finance Income (including Fair Value changes in Financial Instruments)	(6.44)	(11.85)
Finance Costs	58.49	73.99
Liabilities / Provisions no longer payable written back	(1.47)	(1.22)
Provision for Impairment of Investments	3.26	-
Impact of Foreign Currency Translation	0.68	(0.36)
Dividend Income	(5.17)	(3.55)
Operating Profit before Working Capital / Other Changes	433.82	418.42
Adjustments for :		
Increase in Provisions and Government Grants	23.42	8.16
Increase in Trade and Other Payables	155.22	117.93
(Decrease) / Increase in Other Financial Liabilities	(55.71)	57.79
Increase / (Decrease) in Other Current Liabilities	(0.04)	(1.41)
Increase in Other Non-Current Assets	(5.88)	(2.23)
Increase in Other Financial and Current Assets	(3.95)	(9.98)
Increase in Trade and Other Receivables	(62.56)	(33.34)
Increase in Inventories	(18.61)	(133.29)
Cash Generated From Operations	465.71	422.05
Income Tax paid	(69.19)	(39.17)
Net Cash Flow from Operating Activities	396.52	382.88
B. Cash Flow from Investing Activities:		
Capital Expenditure (Including Capital Work In Progress and Capital Advances)	(230.70)	(164.52)
Proceeds from Sale of Property, Plant and Equipment	7.90	8.17
Sale / (Purchase) of Current Investments (Net)	56.50	(102.40)
Purchase of Non Current Investments	(31.20)	(16.17)
Interest Income received	5.87	8.02
Dividend received	5.17	3.55
Net Cash Used in Investing Activities	(186.46)	(263.35)

₹ in Crores		
Particulars	Year Ended 31-Mar-2018	Year Ended 31-Mar-2017
C. Cash Flow from Financing Activities:		
Proceeds from issue of shares	0.11	0.01
Proceeds from Long Term Borrowings	100.00	100.00
Repayment of Long Term Borrowings	(126.71)	(734.47)
Proceeds from Short Term Borrowings (Net)	(123.55)	58.24
Finance Costs Paid	(62.18)	(108.35)
Dividends Paid (Including Net Dividend Distribution Tax)	(78.48)	-
Net Cash Used in Financing Activities	(290.81)	(684.57)
Net Decrease in Cash and Cash Equivalents [A+B+C]	(80.75)	(565.04)
Cash and Cash Equivalents at the Beginning of the Year	14.36	0.05
Additions on acquisition of Subsidiaries	9.31	-
Transferred to the Company pursuant to Scheme of Arrangement (Refer Note 1.2)	-	579.35
Cash and Cash Equivalents as at End of the Year (Refer Note 11d)	(57.08)	14.36

Cash flow statement for the year ended 31-Mar-2019

Particulars	Year Ended 31-Mar-2019	Year Ended 31-Mar-2018
A. Cash Flow from Operating Activities:		
Profit Before Tax	377.64	213.83
Less : Share of Loss from Joint Ventures (net of tax)	(8.85)	(13.08)
Profit Before Tax	386.49	226.91
Adjustments to reconcile Profit Before Tax to Net Cash Flows:		
Depreciation on Property, Plant and Equipment	160.62	153.20
Depreciation on Investment Properties	0.19	0.17
Amortisation of Intangible assets	0.77	0.17
Share based payment expenses	4.93	5.43
Profit on Property Plant & Equipment sold / discarded (Net)	(7.62)	(1.35)
Profit on Sale of Investments carried at FVTPL	(3.94)	(2.84)
Impairment allowance for receivables and advances (Net) (includes bad debts written off) (Refer Note 27a)	2.18	2.48
Net Foreign Exchange differences	4.47	0.30
Finance Income (including Fair Value changes in Financial Instruments)	(5.69)	(6.44)
Finance Costs	52.82	58.49
Liabilities / Provisions no longer payable written back	(1.75)	(1.47)
Provision for Impairment of Investments	(3.26)	3.26
Impact of Foreign Currency Translation	3.35	4.62
Loss on sale of Joint Venture	0.26	-
Dividend Income	(7.56)	(5.17)
Operating Profit before Working Capital / Other Changes	586.26	437.76
Adjustments for :		
Increase in Long Term Liabilities	9.00	-
Increase in Provisions and Government Grants	0.76	23.42
Increase in Trade and Other Payables	16.30	166.26
Increase / (Decrease) in Other Financial Liabilities	1.70	(55.71)
(Decrease) in Other Current Liabilities	(2.74)	(2.47)
(Increase) in Other Non-Current Assets	(24.72)	(5.88)
Decrease / (Increase) in Other Financial and Current Assets	76.03	(3.95)
(Increase) in Trade and Other Receivables	(0.80)	(62.56)
(Increase) in Inventories	(50.56)	(18.61)
Cash Generated From Operations	611.23	478.26
Income Tax paid	(118.24)	(69.19)
Net Cash Flow from Operating Activities	492.99	409.07
B. Cash Flow from Investing Activities:		
Capital Expenditure (Including Capital Work In Progress and Capital Advances)	(194.19)	(234.79)
Proceeds from Sale of Property, Plant and Equipment	10.70	8.05
Sale / (Purchase) of Current Investments (Net) (Refer Note 11c)	(9.25)	56.50
Sale / (Purchase) of Non Current Investments	2.56	(31.20)
Amount Invested in deposits having a original maturity of more than 3 months (Net)	(21.17)	-
Receipt of Subsidy	0.32	-
Interest Income received	8.22	5.87
Dividend received	7.56	5.17
Net Cash Used in Investing Activities	(195.25)	(190.40)

Particulars	Year Ended 31-Mar-2019	Year Ended 31-Mar-2018
C. Cash Flow from Financing Activities: (Refer Note 11d)		
Proceeds from issue of shares	2.61	0.11
Proceeds from Long Term Borrowings	-	100.00
Repayment of Long Term Borrowings	(258.75)	(126.71)
Proceeds / (Repayment) from Short Term Borrowings (Net) (Refer Note 17a)	104.50	(123.55)
Finance Costs Paid	(63.08)	(62.18)
Dividends Paid (Including Net Dividend Distribution Tax)	(65.65)	(78.48)
Net Cash Used in Financing Activities	(280.37)	(290.81)
Net Decrease in Cash and Cash Equivalents [A+B+C]	17.38	(72.14)
Cash and Cash Equivalents at the Beginning of the Year	(48.47)	14.36
Additions on acquisition of Subsidiaries	-	9.31
Cash and Cash Equivalents as at End of the Year (Refer Note below)	(31.09)	(48.47)

(₹ in Crores)

Particulars	Year Ended 31-Mar-2019	Year Ended 31-Mar-2018
Cash and Cash Equivalents as per Note 11d	52.54	32.46
Cash Credit facility (Secured)	(64.56)	(79.94)
Balances in Unpaid Dividend Accounts	(1.57)	(0.99)
Deposit in Buyback Escrow account	(17.50)	-
Total Cash and Cash Equivalents as per Statement of Cash Flow	(31.09)	(48.47)

Cash flow statement for the year ended for the year ended 31-Mar-2020

Particulars	₹ in Crores	
	Year Ended 31-Mar-2020	Year Ended 31-Mar-2019
A. Cash Flow from Operating Activities:		
Profit Before Tax	403.21	377.64
Less : Share of Loss from Joint Ventures (net of tax)	-	(8.85)
Profit Before Tax	403.21	386.49
<u>Adjustments to reconcile Profit Before Tax to Net Cash Flows:</u>		
Depreciation on Property, Plant and Equipment	171.46	160.62
Depreciation on Right-of-use assets	12.64	-
Depreciation on Investment Properties	0.16	0.19
Amortisation of Intangible assets	1.01	0.77
Share based payment expenses	3.18	4.93
Profit on Property Plant and Equipment sold/discarded (Net)	(5.29)	(7.62)
Profit on Sale of Investments carried at FVTPL	(6.10)	(3.94)
Impairment allowance for receivables and advances (Net) (includes bad debts written off)	6.84	2.18
Net Foreign Exchange differences including impact of foreign currency translation	1.50	7.83
Finance Income (including Fair Value changes in Financial Instruments)	(2.23)	(5.69)
Finance Costs	30.37	52.82
Liabilities / Provisions no longer payable written back	(9.70)	(1.75)
Provision for Impairment of Investments	-	(3.26)
Loss on sale of joint venture	-	0.26
Dividend Income	(4.85)	(7.56)
Operating Profit before Working Capital / Other Changes	602.20	586.27
Adjustments for :		
(Decrease) / Increase in Long Term Liabilities	(7.62)	9.00
(Decrease) / Increase in Provisions and Government Grants	(34.22)	0.76
(Decrease) in Trade and Other Payables	(231.46)	(16.20)
(Decrease) / Increase in Other Financial Liabilities	(4.16)	2.09
(Decrease) in Other Current Liabilities	(5.68)	(2.74)
Decrease / (Increase) in Other Non-Current Assets	10.19	(24.72)
Decrease in Other Financial and Current Assets	6.44	76.03
Decrease in Trade and Other Receivables	126.18	31.70
Decrease / (Increase) in Inventories	256.53	(50.56)
Cash Generated From Operations	718.40	611.63
Income Tax paid (Net of refunds)	(122.34)	(118.24)
Net Cash Flow from Operating Activities	596.06	493.39

Particulars	₹ in Crores	
	Year Ended 31-Mar-2020	Year Ended 31-Mar-2019
B. Cash Flow from Investing Activities:		
Capital Expenditure (Including Capital Work In Progress and Capital Advances)	(221.90)	(194.19)
Proceeds from Sale of Property, Plant and Equipment	2.80	10.70
(Purchase) of Current Investments (Net) (Refer Note 11c)	(32.56)	(9.25)
Sale of Non Current Investments	-	2.56
(Purchase) of Non Current Investments	(21.78)	-
Proceeds / (Investment) in deposits having a original maturity of more than 3 months (Net)	19.96	(21.56)
Receipt of Subsidy	-	0.32
Interest Income received	2.74	8.22
Dividend received	4.85	7.56
Net Cash Used in Investing Activities	(245.89)	(195.64)
C. Cash Flow from Financing Activities: (Refer Note 11d)		
Proceeds from issue of shares	3.99	2.61
Repayment of Long Term Borrowings	(105.24)	(258.75)
Proceeds / (Repayment) from Short Term Borrowings (Net) (Refer Note 17a)	(69.20)	104.50
Buy back of equity shares in respect of Non-controlling interest in Subsidiary	(24.65)	-
Proceeds from sale of Treasury Shares	56.81	-
Payment of Lease Liabilities	(11.81)	-
Finance Costs Paid	(28.10)	(63.08)
Dividends Paid (Including Net Dividend Distribution Tax)	(105.92)	(65.65)
Net Cash Used in Financing Activities	(284.12)	(280.37)
Net Increase in Cash and Cash Equivalents [A+B+C]	66.05	17.38
Cash and Cash Equivalents at the Beginning of the Year	(31.09)	(48.47)
Cash and Cash Equivalents at the End of the Year (Refer Note 11d)	34.96	(31.09)

Cash flow Statement for the year ended 31-Mar-2021

₹ in Crores		
Particulars	Year Ended 31-Mar-2021	Year Ended 31-Mar-2020
A. Cash Flow from Operating Activities:		
Profit Before Tax	412.22	403.21
Adjustments to reconcile Profit Before Tax to Net Cash Flows:		
Depreciation on Property, Plant and Equipment	202.14	171.46
Amortisation of Right-of-use assets	16.81	12.64
Depreciation on Investment Properties	0.21	0.16
Amortisation of Intangible assets	32.14	1.01
Share based payment expenses	1.32	3.18
Profit on Property, Plant & Equipment sold/discarded (Net)	(45.62)	(5.29)
Profit on Sale of Investments carried at FVTPL	(9.02)	(6.10)
Impairment allowance for receivables and advances (Net) (includes bad debts written off)	45.49	6.84
Net Foreign Exchange differences including impact of Foreign Currency Translation	(0.93)	1.50
Finance Income (including Fair Value changes in Financial Instruments)	(16.72)	(2.23)
Finance Costs	40.90	30.37
Liabilities/Provisions no longer payable written back	(3.60)	(9.70)
Intangible assets written off	7.15	-
Dividend Income	(1.29)	(4.85)
Operating Profit before Working Capital / Other Changes	681.20	602.20
Adjustments for :		
(Decrease)/Increase in Long Term Liabilities	(44.20)	(7.62)
(Decrease)/Increase in Provisions and Government Grants	(7.40)	(34.22)
(Decrease)/Increase in Trade and Other Payables	240.91	(231.46)
(Decrease)/Increase in Other Financial Liabilities	(36.94)	(4.16)
(Decrease)/Increase in Other Current Liabilities	5.45	(5.68)
(Increase)/Decrease in Other Non-Current Assets	22.94	10.19
(Increase)/Decrease in Other Financial and Current Assets	7.51	6.44
(Increase)/Decrease in Trade and Other Receivables	(297.27)	126.18
(Increase)/Decrease in Inventories	(206.89)	256.53
Cash Generated From Operations	365.31	718.40
Income Tax paid (Net of refunds)	(100.39)	(122.34)
Non-Controlling Interest in Loss	2.07	-
Net Cash Flow used in discontinued operating activities	1.45	-
Net Cash Flow from Operating Activities	268.44	596.06
B. Cash Flow from Investing Activities:		
Capital Expenditure (Including Capital Work In Progress and Capital Advances)	(150.36)	(221.90)
Proceeds from Sale of Property, Plant and Equipment	7.14	2.80
(Purchase) of Current Investments (Net) (Refer Note 11c)	(311.09)	(32.56)
(Purchase) of Non Current Investments	-	(21.78)
Proceeds/(Investment) in deposits having a original maturity of more than 3 months (Net)	94.41	19.96
Unrealised Exchange gain on Consolidation (net)	6.15	-

₹ in Crores		
Particulars	Year Ended 31-Mar-2021	Year Ended 31-Mar-2020
Interest Income received	12.29	2.74
Dividend received	1.29	4.85
Net Cash Used in Investing Activities	(340.17)	(245.89)
C. Cash Flow from Financing Activities: (Refer Note 11d)		
Proceeds from Exercise of Share Options	4.17	3.99
Proceeds from Issue of Shares on Preferential basis, net of expenses relating to the issue	342.86	-
Proceeds from Long Term Borrowings	770.52	-
(Repayment) of Long Term Borrowings	(736.26)	(105.24)
(Repayment)/Proceeds from Short Term Borrowings (Net)	9.65	(69.20)
Buyback of equity shares in respect of Non-controlling interest in Subsidiary	-	(24.65)
Proceeds from sale of Treasury Shares	-	56.81
Payment of Lease Liabilities	(11.33)	(11.81)
Finance Costs Paid	(33.67)	(28.10)
Dividends Paid (Including Net Dividend Distribution Tax)	(42.25)	(105.92)
Unrealised Exchange (gain)/loss on Consolidation (net)	(13.83)	-
Changes in Non-controlling Interest	(4.15)	-
Net Cash Used in Financing Activities	285.71	(284.12)
Net Increase in Cash and Cash Equivalents [A+B+C]	213.98	66.05
Cash and Cash Equivalents at the Beginning of the Year	34.96	(31.09)
Additions on account of Business Combination (Refer Note 40.2)	277.22	-
Cash and Cash Equivalents at the End of the Year (Refer Note 11d)	526.16	34.96

Cash flow statement for the year ended 31-Mar-22

₹ in Crores		
Particulars	Year Ended 31-Mar-2021	Year Ended 31-Mar-2020
A. Cash Flow from Operating Activities:		
Profit Before Tax	412.22	403.21
Adjustments to reconcile Profit Before Tax to Net Cash Flows:		
Depreciation on Property, Plant and Equipment	202.14	171.46
Amortisation of Right-of-use assets	16.81	12.64
Depreciation on Investment Properties	0.21	0.16
Amortisation of Intangible assets	32.14	1.01
Share based payment expenses	1.32	3.18
Profit on Property, Plant & Equipment sold/discarded (Net)	(45.62)	(5.29)
Profit on Sale of Investments carried at FVTPL	(9.02)	(6.10)
Impairment allowance for receivables and advances (Net) (includes bad debts written off)	45.49	6.84
Net Foreign Exchange differences including impact of Foreign Currency Translation	(0.93)	1.50
Finance Income (including Fair Value changes in Financial Instruments)	(16.72)	(2.23)
Finance Costs	40.90	30.37
Liabilities/Provisions no longer payable written back	(3.60)	(9.70)
Intangible assets written off	7.15	-
Dividend Income	(1.29)	(4.85)
Operating Profit before Working Capital / Other Changes	681.20	602.20
Adjustments for :		
(Decrease)/Increase in Long Term Liabilities	(44.20)	(7.62)
(Decrease)/Increase in Provisions and Government Grants	(7.40)	(34.22)
(Decrease)/Increase in Trade and Other Payables	240.91	(231.46)
(Decrease)/Increase in Other Financial Liabilities	(36.94)	(4.16)
(Decrease)/Increase in Other Current Liabilities	5.45	(5.68)
(Increase)/Decrease in Other Non-Current Assets	22.94	10.19
(Increase)/Decrease in Other Financial and Current Assets	7.51	6.44
(Increase)/Decrease in Trade and Other Receivables	(297.27)	126.18
(Increase)/Decrease in Inventories	(206.89)	256.53
Cash Generated From Operations	365.31	718.40
Income Tax paid (Net of refunds)	(100.39)	(122.34)
Non-Controlling Interest in Loss	2.07	-
Net Cash Flow used in discontinued operating activities	1.45	-
Net Cash Flow from Operating Activities	268.44	596.06
B. Cash Flow from Investing Activities:		
Capital Expenditure (Including Capital Work In Progress and Capital Advances)	(150.36)	(221.90)
Proceeds from Sale of Property, Plant and Equipment	7.14	2.80
(Purchase) of Current Investments (Net) (Refer Note 11c)	(311.09)	(32.56)
(Purchase) of Non Current Investments	-	(21.78)
Proceeds/(Investment) in deposits having a original maturity of more than 3 months (Net)	94.41	19.96
Unrealised Exchange gain on Consolidation (net)	6.15	-

₹ in Crores		
Particulars	Year Ended 31-Mar-2021	Year Ended 31-Mar-2020
Interest Income received	12.29	2.74
Dividend received	1.29	4.85
Net Cash Used in Investing Activities	(340.17)	(245.89)
C. Cash Flow from Financing Activities: (Refer Note 11d)		
Proceeds from Exercise of Share Options	4.17	3.99
Proceeds from Issue of Shares on Preferential basis, net of expenses relating to the issue	342.86	-
Proceeds from Long Term Borrowings	770.52	-
(Repayment) of Long Term Borrowings	(736.26)	(105.24)
(Repayment)/Proceeds from Short Term Borrowings (Net)	9.65	(69.20)
Buyback of equity shares in respect of Non-controlling interest in Subsidiary	-	(24.65)
Proceeds from sale of Treasury Shares	-	56.81
Payment of Lease Liabilities	(11.33)	(11.81)
Finance Costs Paid	(33.67)	(28.10)
Dividends Paid (Including Net Dividend Distribution Tax)	(42.25)	(105.92)
Unrealised Exchange (gain)/loss on Consolidation (net)	(13.83)	-
Changes in Non-controlling Interest	(4.15)	-
Net Cash Used in Financing Activities	285.71	(284.12)
Net Increase in Cash and Cash Equivalents [A+B+C]	213.98	66.05
Cash and Cash Equivalents at the Beginning of the Year	34.96	(31.09)
Additions on account of Business Combination (Refer Note 40.2)	277.22	-
Cash and Cash Equivalents at the End of the Year (Refer Note 11d)	526.16	34.96

