Department of Mathematics and Computer Science

Anantapur Campus

Case Study

A STUDY ON FINANCIAL ANALYSIS OF TOP FIVE E-COMMERCE COMPANIES IN INDIA.

Paper Code: PMAT-401

Paper title: Mathematical Modelling

Submitted to: DR.(Mrs) Rita Gupta

Submitted by: 20277

Table of Contents

1. Introduction

- The term Electronic Commerce(E-commerce) refers to a business model that allows companies and individuals to buy and sell goods and services over the internet.

- Although the internet appeared in the late 1960s, e-commerce took off with the arrival of the World Wide Web and browsers in the early 1990s. This emergence of e-commerce has brought tremendous changes in how companies compete in today's new economy.

- There is an urgent need to resort to e-commerce utilisation as it can provide substantial benefits to the enterprises via improved efficiencies and raised revenues

- The Government of India announced various initiatives, namely Digital India, Make in India, Start-up India, Skill India and Innovation Fund.

- Managing an online storefront is far cheaper than an offline store because less staff are required to manage an online shop as web-based management systems enable owners to automate inventory management and warehousing is not necessarily required.

- Unlike many offline stores, consumers can access e-commerce websites 24 hours a day. Customers can read about services, browse products and place orders whenever they wish.

- Furthermore, those living in more remote areas are able to order from their homes saving their time travelling to a shopping centre.

2. Objectives of the Case study

- The study is intended to understand the financial and profitability positions of the top 5 performing e-commerce companies.

- We Compare the Company's performance on the basis of Liquidity ratio, Solvency ratio, profitability ratio, activity ratio, Market test ratio.

3. Nature of the study : The study is analytical and descriptive in nature.

3.1 Nature of the data : Secondary data is used and it uses financial variables and accounting information.

3.2 Source of data : The secondary data is acquired from annual reports and from various company's website.

3.3 Tools of the study : We use ratio analysis

3.4 Period of the study : 2020 – 2021

4. Conceptual review:

Meaning:

Financial analysis is the process of evaluating a company's financial statements for determining the performance and the decision-making purposes. External stakeholders use it to understand the overall health of an organization as well as to evaluate financial performance and business value. Internal constituents use it as a monitoring tool for managing the finances.

5. Companies Profile :

5.1 MYNTRA : Myntra is an Indian fashion e-commerce company headquartered in Bengaluru, Karnataka, India. The company was founded in 2007 to sell personalized gift items. Established by Mukesh Bansal along with Ashutosh Lawania and VineetSaxena. It mainly operated on the B2B (business-to-business) model during its initial years. Between 2007 and 2010, the site allowed customers to personalize products. By 2012 Myntra offered products from 350 Indian and International brands. In 2014 Myntra was acquired by Flipkart in a deal valued at ₹2,000 crores. But Myntra functions and operates independently as a standalone brand under Flipkart ownership, focusing primarily on "fashion-conscious" consumers.

Nandita Sinha is the appointed as a new CEO of Myntra in

2022.

5.2 India MART

India MART Inter MESH Ltd. is an Indian e-commerce company that providesB2C, B2B and customer to customer sales services through its web portal. The group began in 1996 when Dinesh Agarwal and Brijesh Agrawal founded the website IndiaMART.com, a business-to-business portal to connect Indian manufacturers with buyers. The company is headquartered in Noida, Uttar Pradesh, India. Over the last 10 years, India MART has become the largest e-commerce platform for businesses with about 60% market share.

5.3 Reliance Digital

Reliance Digital is a consumer durables and information technology concept from Reliance Retail. It is a subsidiary of Reliance Retail, which is a whollyowned subsidiary of Reliance Industries. Reliance Digital is a consumer electronics company in India. The first RelianceDigital Store was opened on 24 April 2007 in Delhi. Currently there are around1000 Reliance Digital and Reliance Digital Xpress Mini Stores in around 100 cities in

India. Mukesh Ambani had been planning his entry in the telecom sector all along, even before his daughter complained about the poor connectivity. In 2013, RIL renamed Infotel Broadband Services as Reliance Jio Info comm, which then became the only company to have a pan-India broadband spectrum, which it later used to roll out 4G services. To be sure, it took Reliance about six years tolaunch commercial mobile network services. But once it commercially launched in September 2016, it took the market by storm.

5.4 Snapdeal

Snapdeal is one of India's leading e-commerce companies with its headquarters located in New Delhi. Snapdeal was launched in 2010, a time when the e-commerce market in India was at a nascent stage. The company was co-founded by Kunal Bahl and Rohit Bansal. Snapdeal was founded on 4 February 2010 as a daily deals platform, and expanded in September 2011 to become an online marketplace. Snapdeal has grown to become one of the largest online market place in India. The company has more than 3 lakh sellers on its e-commerce platform that cater to millions of users. Snapdeal has a wide logistics network and it delivers to more than 6000 cities and towns in India.

5.5 Just Dail

Just Dial Limited is India's No. 1 Local Search engine that

provides local search related services to users across India through multiple platforms such aswebsite, mobile website, Apps (Android, iOS, Windows), over the telephone and text (SMS). Justdial has also initiated ‘Search Plus’ services for its users. These services aim at making several day-to-day tasks conveniently actionableand accessible to users through one App. The organization also aims to make communication between users and businesses seamless through its Real Time Chat Messenger.

6. Data Analysis

Data analysis is the science of analyzing raw data in order to make conclusions about that information. Many of the techniques and processes of data analysis have been automated into mechanical processes algorithm that work over raw data for human consumption.

Data analytics techniques can reveal trends and metrics that would otherwise belost in the mass of information. This information can then be used to optimize processes to increase the overall efficiency of a business or system.

6.1 Liquidity ratio

The term liquidity refers to the firm’s ability to pay its current liabilities out of its current assets. This ratio is highly

useful to creditors and commercial banks that provide short term credit.

6.1.1 Current ratio

It is a type of financial ratio that is used to determine company's ability to pay it' s short-term debt obligations within one year. It tells investors and analysts how a company can maximize the current assets on it' s balance sheets to satisfy current debts and other payables.

The current ratio compares all of a company's current assets to it' s current liabilities.

Formula: Current ratio = current assets / current liabilities

Table 6.1 showing current ratios for the year

2020-2021

Company	**Current Asset (in Cr)**	**Current Liability (in Cr)**	**Ratio**
Myntra	502	411	1.22
India MART	710.3	418.64	1.69
Reliance Digital	232053	317322	0.73
Snapdeal	833	818	1

Justdial	125	496	0.25

Generally, the current ratio of 2:1 is considered as ideal. From table 4.1 it is clear that the following above companies has failed to meet the standard ratio. Out of the 5 companies, India MART has better current ratio.

6.1.2 Quick ratio

It measures a company's capacity to pay it' s current liabilities Without needing to sell it' s inventory or obtain additional financing.

Formula: Quick ratio = Quick assets / Current liability

Table 6.2 showing quick ratio for the year 2020-2021

Company	**Quick Asset (in Cr)**	**Current Liability (in Cr)**	**Ratio**
Myntra	214	411	0.52
India MART	327	418.64	0.78
Reliance Digital	164526	317322	0.51
Snapdeal	701	818	0.85
Justdial	102	496	0.2

Generally the quick ratio 1:1 is considered as ideal. From table 6.2 is clear that quick ratio of the above companies has failed to meet the standard ratio. Of the above companies, Snapdeal is

having a better quick ratio.

6.2 Solvency ratio

It measures how well a Company's cash flow can cover it' s long term debt. It assess the financial health of a company and indicates whether a company's cashflow is sufficient to meet it' s long-term liabilities. The term solvency means long term solvency.

They are mainly used to analyze the long-term financial position of a business

6.2.1 Total debt equity ratio

Formula: Total debt equity ratio = total debt/total equity

Table 6.3 showing Total debt equity ratio for the year 2020-2021

Company	**Total Debt (inCr)**	**Total Equity (inCr)**	**Ratio**
Myntra	418.5	245	1.48
India MART	658.1	659.89	0.99
Reliance Digital	607014	387112	1.56
Snapdeal	926	341	2.71
Justdial	550.05	998.8	0.55

The debt equity ratio is to take a Company's total liabilities and divide them by it' s total shareholder's equity.

Generally debt equity ratio of 1:1 is considered as standard.

This means that funds provided by outsiders and shareholders must be equal. From the table 6.3 it is clear that above companies have not attained the ideal ratio except India Mart.

6.2.2 Proprietary ratio

It measures the amount of funds that investors have contributed towards the capital of a firm in relation to the total capital that is required by the firm to conduct operations.

Formula - Proprietary ratio = shareholders' funds / total assets

Table 6.4 showing Proprietary ratio for the year 2020-2021

Company	**Shareholders' funds (in Cr)**	**Total assets (in Cr)**	**Ratio**
Myntra	245	664	0.3
India MART	659.89	818.78	0.8
Reliance digital	387112	1002406	0.3
Snapdeal	341	1669	0.2
Justdial	998.8	1548	0.6

Generally proprietary ratio of 0.5 (or above 0.5) is considered as ideal. Table 6.4 shows that from the above companies, India MART and Justdial have met the standards.

6.2.3 Solvency ratio

It is a key metric used to measure the company's ability to meet it' s long-term obligations. A solvency ratio indicates whether a company's cash flow is sufficient to meet it' s long -term liabilities and thus is a measure of it' s financial health.

Formula : Solvency ratio= total asset/total debt

Table 6.5 showing total asset to total debt ratio for the year 2020-21

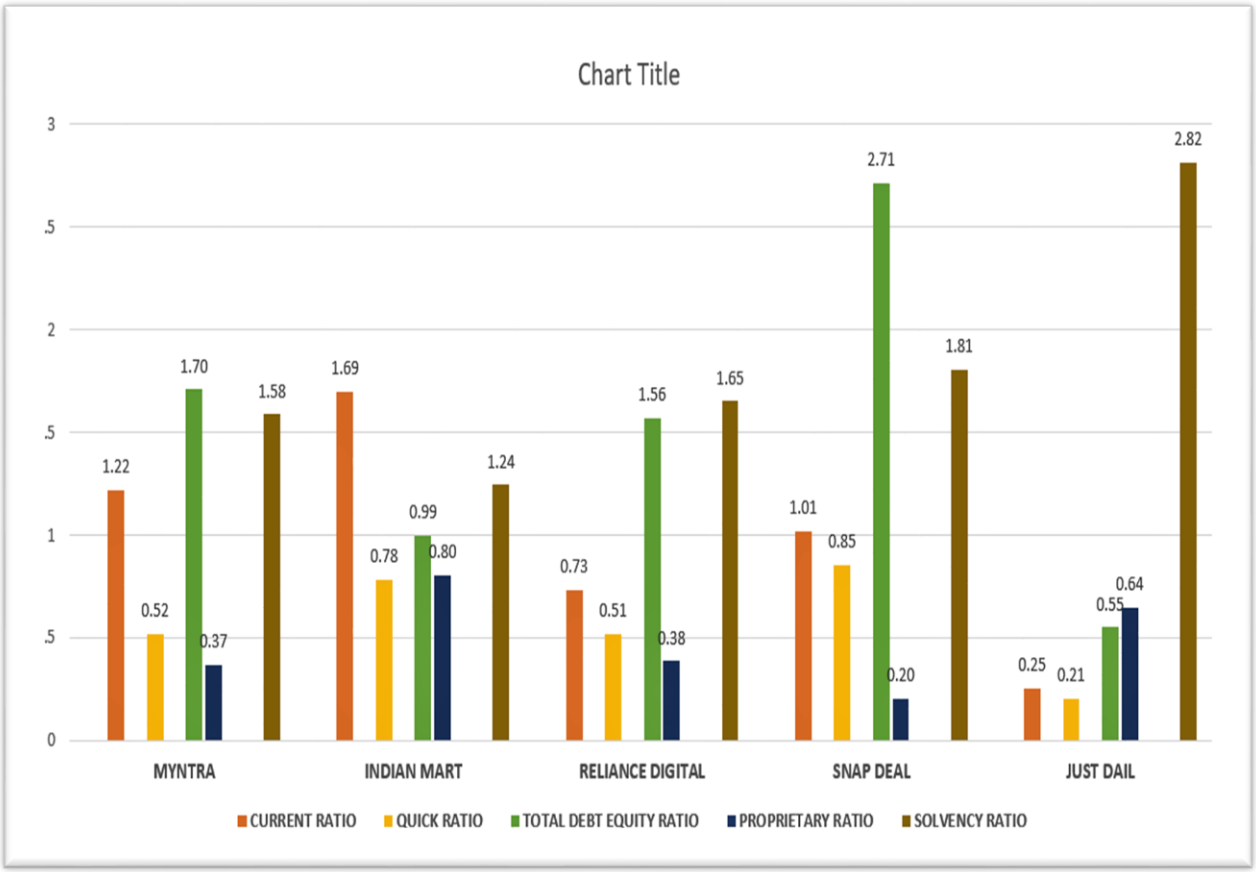
Company	**Total asset (in Cr)**	**Total liability(in Cr)**	**Ratio**
Myntra	664	418.5	1.58
India MART	818.78	658.1	1.24
Reliance digital	1002406	607014	1.65
Snapdeal	1669	1358	1.22
Justdial	1548	550.05	2.8

The solvency ratio indicates the degree of solvency of a business. A higher solvency ratio indicates that the solvency and the financial position are strong.A lower ratio indicates that the solvency and financial position are weak. From the above table, we can see that all 5 companies have achieved ideal solvency ratio. Here Justdial is having the best Solvency ratio.

Data to calculate Current ratio, quick ratio, total debt equity ratio, proprietary ratio, and Solvency ratio of all the five Companies.

COMPANY	CURRENT ASSETS(in Cr)	CURRENT LIABILITIES(in Cr)	QUICK ASSETS	TOTAL DEBT(in cr)	TOTAL EQUITY(in Cr)	TOTAL ASSETS(in Cr)	CURRENT RATIO	QUICK RATIO	TOTAL DEBT EQUITY RATIO	PROPRIETARY RATIO	SOLVENCY RATIO
MYNTRA	502	411	214	418.5	245	664	1.221411	0.520681	1.708163	0.368976	1.586619
INDIAN MART	710.3	418.64	327	658.1	659.89	818.78	1.696685	0.781101	0.997287	0.805943	1.244157
RELIANCE DIGITAL	232053	317322	164526	607014	387112	1002406	0.731286	0.518483	1.568058	0.386183	1.651372
SNAP DEAL	833	818	701	926	341	1669	1.018337	0.856968	2.715543	0.204314	1.802376
JUST DAIL	125	496	102	550.05	998.8	1548	0.252016	0.205645	0.550711	0.64522	2.81429

Graph showing Current ratio, quick ratio, total debt equity ratio, proprietary ratio, and Solvency ratio of all the five Companies.



6.3 Profitability ratio

The ultimate aim of any business enterprise is to earn maximum profit. The term profitability means the ability of a firm to earn income. Profitability ratios are a class of financial metrics that are used to assess Company's ability to generate earnings relative to its revenue, operating costs, balance sheet assets, or shareholder's equity over time.

6.3.1 Net profit ratio

It is a ratio of net profits to revenues for a company. It measures the residual income that an organization is left with after paying off all it's expenses for a financial period. This is a true profit that a company can use to make business decisions for it' s development.

Net profit ratio = net profit / net sales x 100

Table 6.6 showing net profit ratio for the year 2020-21

Company	Net profit (in Cr)	Net sales (in Cr)	Percentage
Myntra	50.43	1032	4.88%
India MART	46.33	529.66	8.74%
Reliance digital	47367	371616	12.74%
Snapdeal	237.3	1767	13.41%
Justdial	288.11	1891.50	15.23%

In general, businesses should aim for profit ratios between 5% to 10% while paying attention to their industry's average. Most industries usually consider 10% to be the average, whereas 20% is high, or above average. Higher the ratio, better is the profitability. Here just Dial is having the highest net profit ratio.

6.3.2 Gross profit ratio

The gross profit ratio establishes the relationship of gross profit on sales to net sales of a Company.
Gross profit is the leftover profit after deducting all the direct expenses from the manufacturing process.

Formula: Gross profit ratio = gross profit / net sales x100

Table 6.7 showing gross profit ratio for the year 2020-21

Company	Gross profit (in Cr)	Net sales (in Cr)	percentage
Myntra	167.54	1032	16.23%
India MART	148.25	529.66	27.98%
Reliance digital	99582	371616	26.79%
Snapdeal	458.86	1767	27.43%

Justdial	908.62	1891.50	48.03%

Ideal gross profit ratio is 20% to 25%. It indicates the efficiency of production.This ratio measures the margin of profit available for sales. The table 6.7 shows the gross profit ratio of five companies. Just Dail is having the highest grossprofit ratio.

6.3.4 Return on share-holders fund

Return on share-holders funds indicates the profitability of a company in relation to the funds supplied by the share-holders or owners. This ratio is very important in the owner's point of view as it helps the Company to know whether the Company has earned enough returns to repay it's Share-holders or not.

Formula: Return on shareholders fund = net profit / equity x100

Table 6.8 showing return on shareholders fund for the year 2020-21

Company	**Net profit (in Cr)**	**Equity (in Cr)**	**Percentage**
Myntra	50.43	245	20.58%
India MART	46.33	659.89	07.02%
Reliance digital	47367	387112	12.23%
Snapdeal	237.3	341	69.58%

Justdial	288.11	998.8	28.84%

A higher ratio indicates better utilisation of owner's funds and higher productivity. Here snap Deal has the highest ratio than the rest of the Companies.

6.4 Activity ratio

Activity ratios are used to determine the efficiency of the organization in utilizing its assets for generating cash and revenue. They show how effectively a firm use its available resources or assets. These ratios indicate efficiency in asset management. They are also known as efficiency ratio. They indicate the speed with which the resources are turned over or converted into cash. That is why these ratios are called as turnover ratios. Higher turnover ratios means better use of resources. This means higher profitability.

6.4.1 Total asset turnover ratio

It measures the efficiency with which a company uses its assets to produce sales. A company with high total asset turnover ratio operates more efficiently than the companies

with lower ratio.

Formula: Total asset turnover ratio = net sales / total asset

Table 6.9 showing total asset turnover ratio for the year 2020-21

Company	**Net sales (in Cr)**	**Total assets (in Cr)**	**ratio**
Myntra	1032	664	1.55
India MART	529.66	818.78	0.64
Reliance digital	371616	1002406	0.37
Snapdeal	1767	1669	1.05
Justdial	1891.50	1548	1.22

The ideal ratio is 2.5 or more. In the table 6.9, none of the above companies have attained the ideal standard. Here Myntra has achieved the highest total asset turnover ratio.

6.4.2 Fixed asset turnover ratio

It measures the company's ability to generate sales using fixed assets. It assesses the ability of a company to generate net sales from it' s machines and equipment efficiently.

Formula: Fixed asset turnover ratio = net sales / working capital

Table 6.10 showing fixed asset turnover ratio for the year 2020-21

Company	**Net sales (in Cr)**	**Working capital (in Cr)**	**ratio**
Myntra	1032	873.7	1.18

India MART	529.66	95.87	5.52
Reliance digital	371616	58456	6.3
Snapdeal	1767	864.2	2.04
Justdial	1891.50	568.58	3.32

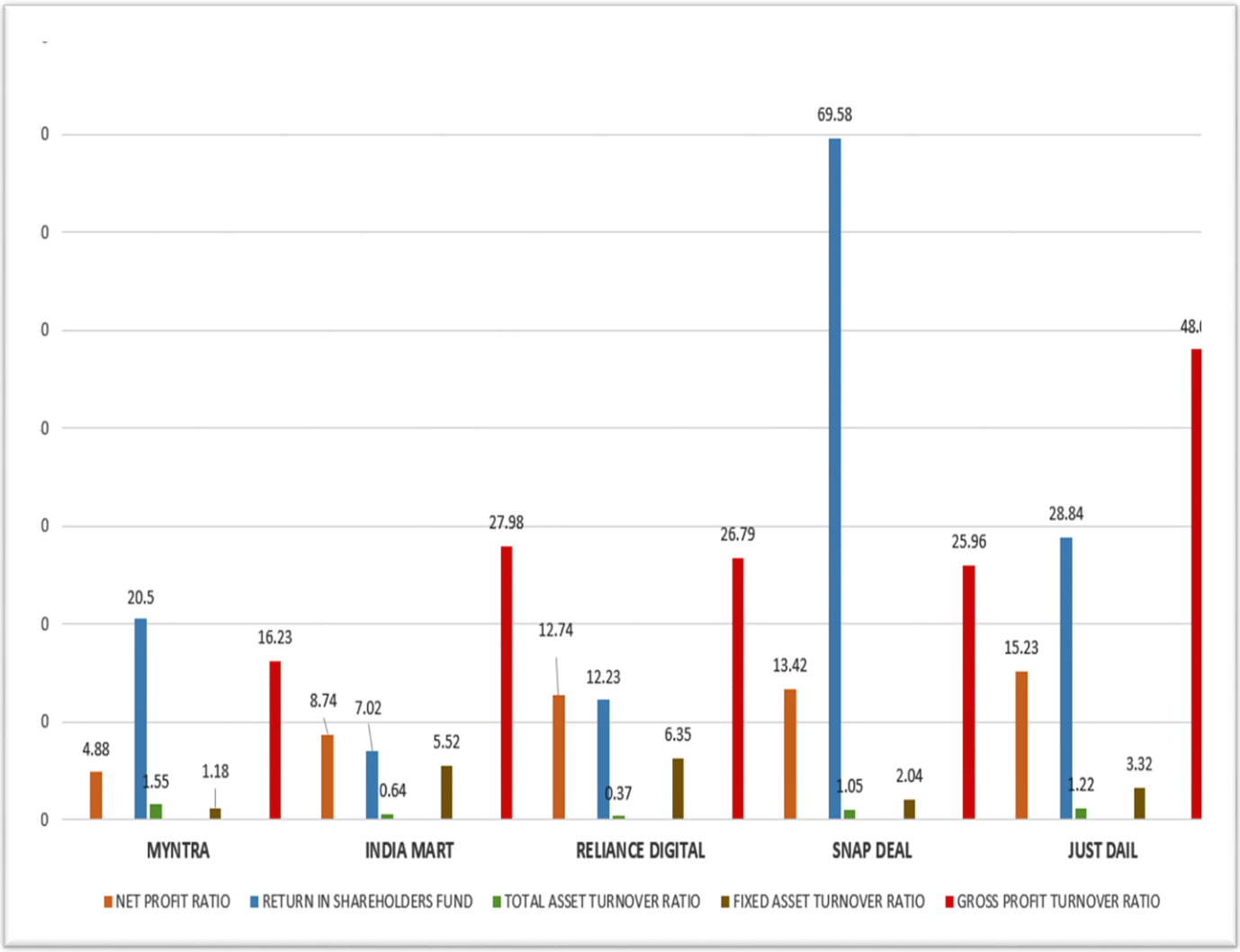
The idealworking capital turnover ratio is 7 or 8. India Mart has achieved thehighest working capital turnover ratio.

Data for calculating net profit ratio, return on shareholders fund, Total asset turnover ratio, Fixed asset turnover ratio and Gross profit ratio of all 5 companies

NTRA	50.43	1032	167.54	245	664	873.7	4.886628	20.58367
IA MART	46.33	529.66	148.25	659.89	818.78	95.87	8.747121	7.020867
IANCE DIGITAL	47367	371616	99582	387112	1002406	58456	12.74622	12.23599
P DEAL	237.3	1767	458.86	341	1669	864.2	13.42954	69.58944
T DAIL	288.11	1891.5	908.62	998.8	1548	568.58	15.23183	28.84561

TOTAL ASSET TURNOVER RATIO	FIXED ASSET TURNOVER RATIO	GROSS PROFIT RATIO(%)
1.554217	1.181183	16.2345
0.646889	5.524773	27.98965
0.370724	6.357192	26.79702
1.058718	2.044666	25.96831
1.221899	3.326709	48.03701

Graph of net profit ratio, return on shareholders fund, Total asset turnover ratio, Fixed asset turnover ratio and Gross profit ratio of all 5 companies.



6.4.3 Stock turnover ratio

It is a measure of how many times the stock is sold and replaced over a given period of time.

This ratio strikes a good balance between having enough inventory on hand and not having to reorder too frequently.

Formula: Stock turnover ratio = cost of goods sold / average inventory.

Table 6.11 showing stock turnover ratio for the

year 2020-21.

Company	Cost of goods sold (in Cr)	Average inventory (in Cr)	ratio
Myntra	867.75	97.69	8.8
India MART	173.57	36.88	4.7
Reliance digital	75872	9678	7.8
Snapdeal	958.41	99.45	9.63
Justdial	696.30	87.82	7.92

A good stock turnover ratio is between 5 and 10 for most industries which indicates that you sell and restock your inventory every 1 to 2 months. High stock turnover ratio indicates that you are selling your product in a timely manner and low turnover ratio indicates weak sales which is over stocking. From the above table except India Mart rest all are having a good stock turnover ratio.

6.5 Market test ratio:

This ratio relates the firms share price to its earnings. It indicates the feelings, anticipations and thoughts of investors with the company's past performance and future prospects. If the company's profitability, solvency and activity ratios are good, then the market based ratios will be high and share price is expected to be high.

6.5.1 Earnings per share

EPS is the net earnings of a company earned on one share. It expresses the earning capacity of a company, if divided by value of one share.

Formula: Earnings per share = net profit to equity shareholders / number ofshares.

Table 6.12 showing earnings per share ratio for the year 2020-21

Company	**Net profit to equity shareholders (in Cr)**	**Number of shares(L)**	**ratio(in 100 of Rs.)**
Myntra	112.78	21.96	5.10
India MART	368.87	24.37	15.36
Reliance digital	8761.2	592.8	14.79
Snapdeal	138.37	26.85	5.30
Justdial	462.42	37.45	12.48

If Equity per share is higher, market value of equity share will be higher in thestock exchange. Thus it is a good measure of profitability for investors. From 6.12 table we can see that India MART has performed the best.

6.5.2 Dividend per share

It is all the dividends that a company has paid out for each of

it’s outstanding shares during a certain period of time.

Dividend per share ratio = dividend paid to equity shareholders/ number ofshares

Table 6.13 showing dividend per share ratio for the year 2020-21

Company	**Dividend paid to equity shareholders (in Cr)**	**Number of equity shares(L)**	**ratio(in 100 of Rs.)**
Myntra	101.6	21.96	4.69
India MART	248.2	24.37	10.18
Reliance digital	2745	592.8	4.63
Snapdeal	136.9	26.85	5.1
Justdial	249.1	37.45	6.6

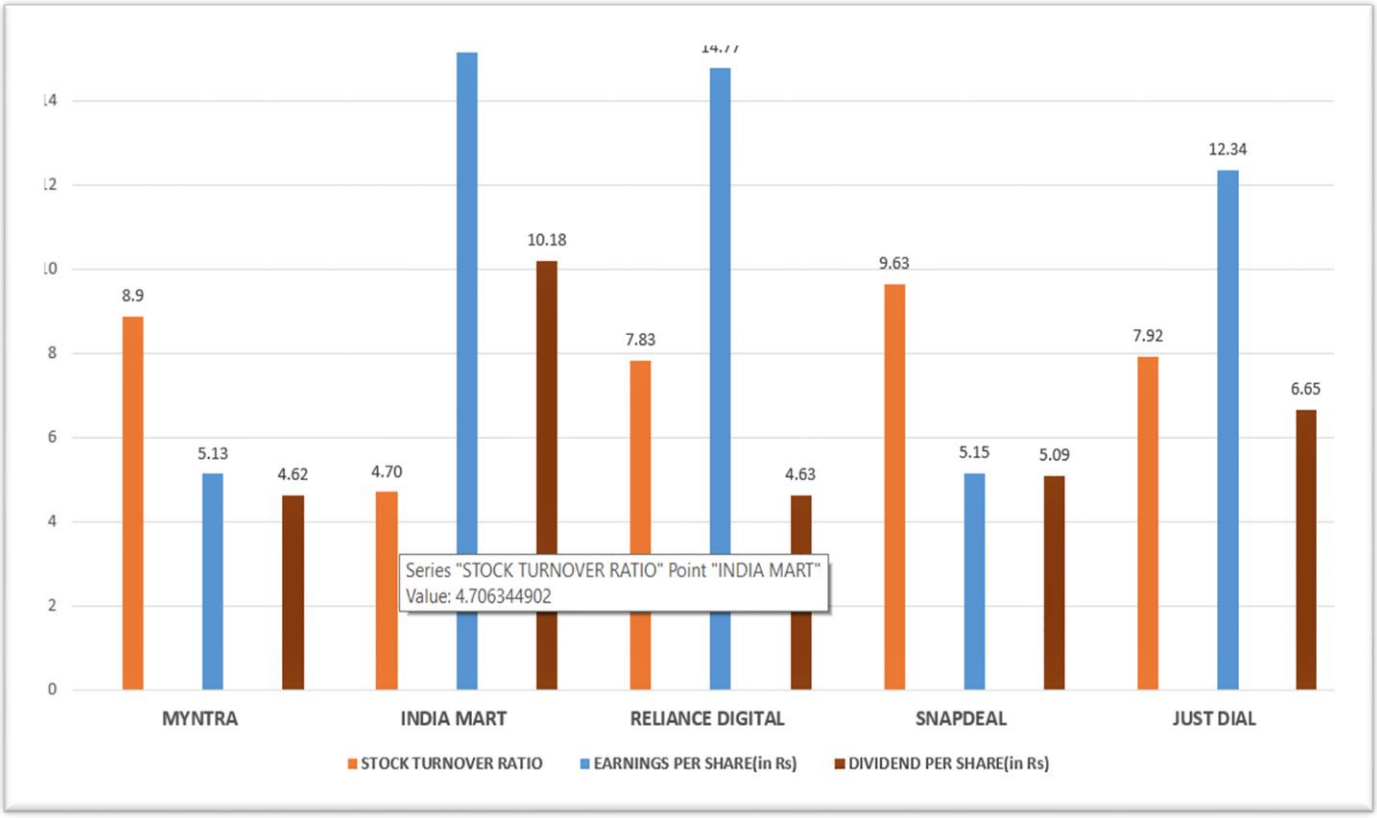
From the table 6.13 we can see that India MART is having a better dividend pershare ratio than the rest of the companies.

Data for calculating stock turnover ratio, Earnings per share, dividend per share of all the five companies

COMPANY	COST OF GOODS SOLD(in cr)	AVARAGE INVENTORY(in cr)	NET PROFIT TO EQUITY SHARE HOLDERS(in cr)	NUMBER OF SHARES(in L)	DIVIDEND PAID TO EQUITY SHARE HOLDERS(i
MYNTRA	867.75	97.69	112.78	21.96	101.6
INDIA MART	173.57	36.88	368.87	24.37	248.2
RELIANCE DIGITAL	75872	9678	8761.2	592.8	2745
SNAPDEAL	958.41	99.45	138.37	26.85	136.9
JUST DIAL	696.3	87.82	462.42	37.45	249.1

STOCK TURNOVER RATIO	EARNINGS PER SHARE(in Rs)	DIVIDEND PER SHARE(in Rs)
8.88269	5.135701	4.626594
4.706345	15.13623	10.18465
7.839636	14.77935	4.630567
9.637104	5.153445	5.098696
7.928718	12.34766	6.651535

Graph of calculating stock turnover ratio, Earnings per share, dividend per share of all the five companies



7. Conclusions

- Out of the 5 companies India MART is having a better current ratio.
- Quick ratio of the 5 companies has not met the ideal standard. Out of 5 Companies Snap deal is having a better quick ratio.
- Companies have not attained the standard goal except India Mart. It has achieved close enough

and has better debt equity ratio.

- From the 5 companies, India MART and Just dial has met the standard forproprietary ratio.
- A solvency ratio indicates the degree of solvency of a business. Just dial has thebest solvency ratio.
- Most of the industries usually consider 10% to be the average, whereas 20% is high,or above average. Here net profit ratio is highest in Just dial.
- Ideal gross profit ratio is 20% to 25%. Here Just dial has attained the ideal Standard.
- Here Snap deal has a better return on shareholders fund than the rest.
- The ideal ratio is 2.5 or more. In the above companies Just dial have attained the highest for total asset turnover ratio.
- Generally stock turnover ratio between 5 and 10 is considered as ideal. Here we can see that Snapdeal has the best ratio.
- As a general rule, the higher a company's EPS, the more profitable it's likely tobe, though a higher EPS isn't a guarantee of future performance.

  Here we can see that IndiaMART has performed the best.
- we can see that IndiaMART is having a better dividend per share than the restof the companies.

8.Program:

```
#include<iostream>
#include<math.h>
using namespace std;
int main()
{
        int ratio,i,n;
        cout<<"menu:\n";
        cout<<"1.Curreny ratio\n2.Quick ratio\n3.Total debt equity ratio\n4.Proprietary ratio\n5.Solvency ratio\n6.Net profit ratio\n7.Gross profit ratio\n";
        cout<<"8.Return on share holders fund\n9.Total asset turnover ratio\n10.Fixed asset turnover ratio\n11.Stock turnover ratio\n12.Earnings per share\n13.Dividend per share ratio ";
        do
        {
        cout<<"\nenter which ratio you want to find:";
        cin>>ratio;
   switch(ratio)
        {
                case 1: float current_ratio;
                float A[10],B[10];
                char name1[15];
                cout<<"enter current assets of the company:\n";
                for(i=0;i<5;i++)
                 {cin>>A[i];}
                 cout<<"current assets are:\n";
                for(i=0;i<5;i++)
                  {cout<<A[i]<<"\n";}
                cout<<"Enter current liabilities of the company:\n";
            for(i=0;i<5;i++)
                 {cin>>B[i];}
                 cout<<"current liabilities are:\n";
```

```
            for(i=0;i<5;i++)
             {cout<<B[i]<<"\n";}
      cout<<"current ratio = (current assets/current liabilities)\n";
      for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
        cin>>name1;
        current_ratio = A[i]/B[i];
        cout<<"Current ratio of "<<name1<<" is "<<current_ratio<<"\n";
             }
             break;
             case 2: float quick_ratio;
            float C[10],D[10];
            char name2[15];
            cout<<"enter quick assets of the company:\n";
            for(i=0;i<5;i++)
             {cin>>C[i];}
             cout<<"quick assets are:\n";
            for(i=0;i<5;i++)
             {cout<<C[i]<<"\n";}
            cout<<"Enter current liabilities of the company:\n";
       for(i=0;i<5;i++)
             {cin>>D[i];}
             cout<<"current liabilities are:\n";
            for(i=0;i<5;i++)
             {cout<<D[i]<<"\n";}
      cout<<"quick ratio = (quick assets/current liabilities)\n";
      for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
        cin>>name2;
        quick_ratio = C[i]/D[i];
        cout<<"quick ratio of "<<name2<<" is "<<quick_ratio<<"\n";
```

```
 }
 break;
 case 3: float total_debt_equity_ratio;
float E[10],F[10];
char name3[15];
cout<<"enter total debt of the company:\n";
for(i=0;i<5;i++)
 {cin>>E[i];}
 cout<<"total debts are:\n";
for(i=0;i<5;i++)
 {cout<<E[i]<<"\n";}
cout<<"Enter total equity of the company:\n";
 for(i=0;i<5;i++)
 {cin>>F[i];}
 cout<<"total equity are:\n";
for(i=0;i<5;i++)
 {cout<<F[i]<<"\n";}
cout<<"Total debt equity ratio = (total debt/total equity)\n";
for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
  cin>>name3;
  quick_ratio = E[i]/F[i];
  cout<<"Total debt equity ratio of "<<name3<<" is "<<total_debt_equity_ratio<<"\n";
 }
 break;
 case 4: float proprietary_ratio;
float G[10],H[10];
char name4[15];
cout<<"enter shareholder's fund of the company:\n";
for(i=0;i<5;i++)
 {cin>>G[i];}
```

```
                cout<<"shareholder's funds are:\n";
               for(i=0;i<5;i++)
                {cout<<G[i]<<"\n";}
               cout<<"Enter total assets of the company:\n";
         for(i=0;i<5;i++)
                {cin>>H[i];}
                cout<<"total assets are:\n";
               for(i=0;i<5;i++)
                {cout<<H[i]<<"\n";}
        cout<<"proprietary ratio = (shareholder's funds/total assets)\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name4;
          quick_ratio = G[i]/H[i];
          cout<<"proprietary ratio of "<<name4<<" is "<<proprietary_ratio<<"\n";
                }
                break;
                case 5: float solvency_ratio;
               float I[10],J[10];
               char name5[15];
               cout<<"enter total assets of the company:\n";
               for(i=0;i<5;i++)
                {cin>>I[i];}
                cout<<"total assets are:\n";
               for(i=0;i<5;i++)
                {cout<<I[i]<<"\n";}
               cout<<"Enter total liability of the company:\n";
         for(i=0;i<5;i++)
                {cin>>J[i];}
                cout<<"total liabilities are:\n";
               for(i=0;i<5;i++)
```

```
                {cout<<J[i]<<"\n";}
        cout<<"solvency ratio = (total assets/total debt)\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name5;
          quick_ratio = G[i]/H[i];
          cout<<"solvency ratio of "<<name5<<" is "<<solvency_ratio<<"\n";
                }
                break;
                case 6: float net_profit_ratio;
               float K[10],L[10];
               char name6[15];
               cout<<"enter net profit of the company:\n";
               for(i=0;i<5;i++)
                {cin>>K[i];}
                cout<<"net profits are:\n";
               for(i=0;i<5;i++)
                {cout<<K[i]<<"\n";}
               cout<<"Enter net sales of the company:\n";
        for(i=0;i<5;i++)
                {cin>>L[i];}
                cout<<"net sales are:\n";
               for(i=0;i<5;i++)
                {cout<<L[i]<<"\n";}
        cout<<"net profit ratio = (net profit/net sales)*100\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name6;
          quick_ratio = (K[i]/L[i])*100;
          cout<<"net profit ratio of "<<name6<<" is "<<net_profit_ratio<<"\n";
                }
```

```
                break;
                case 7: float gross_profit_ratio;
               float M[10],N[10];
               char name7[15];
               cout<<"enter gross profit of the company:\n";
               for(i=0;i<5;i++)
                {cin>>M[i];}
                cout<<"gross profits are:\n";
               for(i=0;i<5;i++)
                 {cout<<M[i]<<"\n";}
               cout<<"Enter net sales of the company:\n";
        for(i=0;i<5;i++)
                {cin>>N[i];}
                cout<<"net sales are:\n";
               for(i=0;i<5;i++)
                 {cout<<N[i]<<"\n";}
       cout<<"gross profit ratio = (gross profit/net sales)*100\n";
       for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name7;
          gross_profit_ratio = (M[i]/N[i])*100;
          cout<<"gross profit ratio of "<<name7<<" is "<<gross_profit_ratio<<"\n";
                 }
                break;
                case 8: float return_on_shareholders_fund;
               float O[10],P[10];
               char name8[15];
               cout<<"enter net profit of the company:\n";
               for(i=0;i<5;i++)
                {cin>>O[i];}
                cout<<"net profits are:\n";
```

```
            for(i=0;i<5;i++)
              {cout<<O[i]<<"\n";}
            cout<<"Enter equity of the company:\n";
         for(i=0;i<5;i++)
            {cin>>P[i];}
            cout<<"equities are:\n";
            for(i=0;i<5;i++)
             {cout<<P[i]<<"\n";}
        cout<<"return on shareholders fund = (net profit/equity)*100\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name8;
          return_on_shareholders_fund = (O[i]/P[i])*100;
          cout<<"return on shareholders fund of "<<name8<<" is "<<return_on_shareholders_fund<<"\n";
             }
            break;
            case 9: float Total_asset_turnover_ratio;
           float Q[10],R[10];
           char name9[15];
           cout<<"enter net sales of the company:\n";
           for(i=0;i<5;i++)
            {cin>>Q[i];}
            cout<<"net sales are:\n";
           for(i=0;i<5;i++)
             {cout<<Q[i]<<"\n";}
           cout<<"Enter total assets of the company:\n";
         for(i=0;i<5;i++)
            {cin>>R[i];}
            cout<<"total assets are:\n";
           for(i=0;i<5;i++)
             {cout<<R[i]<<"\n";}
```

```
        cout<<"Total asset turnover ratio = (net sales/total asset)\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name9;
          Total_asset_turnover_ratio= (Q[i]/R[i]);
          cout<<"Total asset turnover ratio of"<<name9<<" is "<<Total_asset_turnover_ratio<<"\n";
                }
                break;
                case 10: float Fixed_asset_turnover_ratio;
               float S[10],T[10];
               char name10[15];
               cout<<"enter net sales of the company:\n";
               for(i=0;i<5;i++)
                {cin>>S[i];}
                cout<<"net sales are:\n";
               for(i=0;i<5;i++)
                {cout<<S[i]<<"\n";}
               cout<<"Enter working capital of the company:\n";
        for(i=0;i<5;i++)
                {cin>>T[i];}
                cout<<"working capitals are:\n";
               for(i=0;i<5;i++)
                {cout<<T[i]<<"\n";}
        cout<<"fixed asset turnover ratio = (net sales/working capital)\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name10;
          Fixed_asset_turnover_ratio= (S[i]/T[i]);
          cout<<"fixed asset turnover ratio of "<<name10<<" is "<<Fixed_asset_turnover_ratio<<"\n";
                }
                break;
```

```
    case 11: float Stock_asset_turnover_ratio;
                float U[10],V[10];
                char name11[15];
                cout<<"enter cost of goods sold:\n";
                for(i=0;i<5;i++)
                 {cin>>U[i];}
                 cout<<"cost of goods sold are:\n";
                for(i=0;i<5;i++)
                  {cout<<U[i]<<"\n";}
                cout<<"Enter average inventory of the company:\n";
         for(i=0;i<5;i++)
                 {cin>>V[i];}
                 cout<<"average inventories are:\n";
                for(i=0;i<5;i++)
                  {cout<<V[i]<<"\n";}
        cout<<"stock asset turnover ratio = (cost of goods sold/average inventory)\n";
        for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
          cin>>name11;
          Stock_asset_turnover_ratio= (U[i]/V[i]);
          cout<<"stock asset turnover ratio of "<<name11<<" is "<<Stock_asset_turnover_ratio<<"\n";
                  }
                 break;
    case 12: float Earnings_per_share;
                float W[10],X[10];
                char name12[15];
                cout<<"enter net profit to equity shareholders:\n";
                for(i=0;i<5;i++)
                 {cin>>W[i];}
                 cout<<"net profit to equity shareholders are:\n";
                for(i=0;i<5;i++)
```

```
{cout<<W[i]<<"\n";}
cout<<"Enter number of shares of the company:\n";
for(i=0;i<5;i++)
{cin>>X[i];}
cout<<"number of shares of the company are:\n";
for(i=0;i<5;i++)
{cout<<X[i]<<"\n";}
cout<<"Earnings per share = (net profit to equity shareholders/number of shares)\n";
for(i=0;i<5;i++)
{cout<<"Enter the name of company "<<(i+1)<<"\n";
cin>>name12;
Earnings_per_share= (W[i]/X[i]);
cout<<"Earnings per share of "<<name12<<" is "<<Earnings_per_share<<"\n";
}
break;
case 13: float dividend_per_share;
float Y[10],Z[10];
char name13[15];
cout<<"enter dividend paid to to equity shareholders:\n";
for(i=0;i<5;i++)
{cin>>Y[i];}
cout<<"dividend paid to equity shareholders are:\n";
for(i=0;i<5;i++)
{cout<<Y[i]<<"\n";}
cout<<"Enter number of equity shares of the company:\n";
for(i=0;i<5;i++)
{cin>>Z[i];}
cout<<"number of equity shares of the company are:\n";
for(i=0;i<5;i++)
{cout<<Z[i]<<"\n";}
cout<<"dividend per share = (dividend paid to equity shareholders/number of equity shares)\n";
```

```
            for(i=0;i<5;i++)
        {cout<<"Enter the name of company "<<(i+1)<<"\n";
              cin>>name13;
              Earnings_per_share= (Y[i]/Z[i]);
              cout<<"dividend per share of "<<name13<<" is "<<dividend_per_share<<"\n";
                    }
                   break;
          }


          }
          while(ratio!=0);
}
```

Output:

menu:
1.Current ratio
2.Quick ratio
3.Total debt equity ratio
4.Proprietary ratio
5.Solvency ratio
6.Net profit ratio
7.Gross profit ratio
8.Return on share holders fund
9.Total asset turnover ratio
10.Fixed asset turnover ratio
11.Stock turnover ratio
12.Earnings per share
13.Dividend per share ratio
enter which ratio you want to find:1
enter current assets of the company:
502
710.3
232053
833
125
current assets are:
502
710.3
232053
833
125
Enter current liabilities of the company:

411
418.64
317322
818
496
current liabilities are:
411
418.64
317322
818
496
current ratio = (current assets/current liabilities)
Enter the name of company 1
myntra
Current ratio of myntra is 1.22141
Enter the name of company 2
indiamart
Current ratio of indiamart is 1.69668
Enter the name of company 3
reliancedigital
Current ratio of reliancedigital is 0.731286
Enter the name of company 4
snapdeal
Current ratio of snapdeal is 1.01834
Enter the name of company 5
justdial
Current ratio of justdial is 0.252016

enter which ratio you want to find:2
enter quick assets of the company:
214
327
164
526
701
quick assets are:
214
327
164
526
701
Enter current liabilities of the company:
411
418.64
317322
818
496
current liabilities are:
411
418.64

317322
818
496
quick ratio = (quick assets/current liabilities)
Enter the name of company 1
myntr
quick ratio of myntr is 0.520681
Enter the name of company 2
indiamart
quick ratio of indiamart is 0.781101
Enter the name of company 3
reliancedigital
quick ratio of reliancedigital is 0.000516825
Enter the name of company 4
sanpdeal
quick ratio of sanpdeal is 0.643032
Enter the name of company 5
justdial
quick ratio of justdial is 1.41331

enter which ratio you want to find:4
enter shareholder's fund of the company:
245
659.89
387112
341
998.8
shareholder's funds are:
245
659.89
387112
341
998.8
Enter total assets of the company:
664
818.78
1002406
1669
1548
total assets are:
664
818.78
1.00241e+006
1669
1548
proprietary ratio = (shareholder's funds/total assets)
Enter the name of company 1
myntra
proprietary ratio of myntra is 0.368976
Enter the name of company 2

indiamart
proprietary ratio of indiamart is 0.805943
Enter the name of company 3
reliancedigital
proprietary ratio of reliancedigital is 0.386183
Enter the name of company 4
sanpdeal
proprietary ratio of sanpdeal is 0.204314
Enter the name of company 5
justdial
proprietary ratio of justdial is 0.64522

enter which ratio you want to find:6
enter net profit of the company:
50.43
46.33
47367
237.3
288.11
net profits are:
50.43
46.33
47367
237.3
288.11
Enter net sales of the company:
1032
529.66
371616
1767
1891.50
net sales are:
1032
529.66
371616
1767
1891.5
net profit ratio = (net profit/net sales)*100
Enter the name of company 1
myntra
net profit ratio of myntra is 0
Enter the name of company 2
indiamart
net profit ratio of indiamart is 0
Enter the name of company 3
reliancedigital
net profit ratio of reliancedigital is 0
Enter the name of company 4
snapdeal
net profit ratio of snapdeal is 0

Enter the name of company 5
justdial
net profit ratio of justdial is 0

enter which ratio you want to find:0

9.Suggestions:

- Companies have to concentrate on debt capital to have smooth running of company.
- Companies have to increase net sales for increasing profitability of the company and higher profitability will attract more shareholders.
- The debt makes an impact on the profitability of the organisation. The company should enlarge its capital base immediately by adopting longterm sources of finance.

10.Limitations of the study:

- It is not possible to show the lifetime performance of the companies since the study is conducted for one year.
- The limitations of financial statements may affect the study.

11.References:

1. www.myntra.com
2. www.justdial.com
3. www.snapdeal.com
4. www.reliancedigital.in
5. www.indiamart.com

6. www.shodhganga.com
7. www.moneycontrol.com