

# Financial Management (ECON F315)

## Assignment-1

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### Q-1) Assess Objective Function - Shareholders Wealth Maximization vs. Share Price Maximization vs. Business Value Maximization.

#### **Introduction:**

Any company has three objectives which govern the business. They are to be fulfilled to retain stakeholders and to attract new investors. They are:

- Business Value Maximization
- Shareholders Wealth Maximization
- Share Price Maximization

Of all these objectives, **Business Value Maximization** is the least constrained one, which is in the hands of the company. So, at least each company must try to maximize their business value and then try to attain the other objectives.

When a company has good value, it has to try to **Maximize Its Shareholders Wealth** which will help in retaining the existing investors.

When the above two objectives are fulfilled then automatically it attracts new investors to invest their money in the company thereby increasing demand for the stocks/ fin. Instruments issued by company ultimately leading to **Share Price Maximization** (though it is also determined by some other factors like the company's C.S.R. activities, timely repayment of its debts etc.)

**So, in this part of question, we are going to compare to companies, namely Infosys Limited and Persistent Systems Limited and see what the objectives of both companies are (over the span of 3 financial years from 2016 March to 2019 April).**

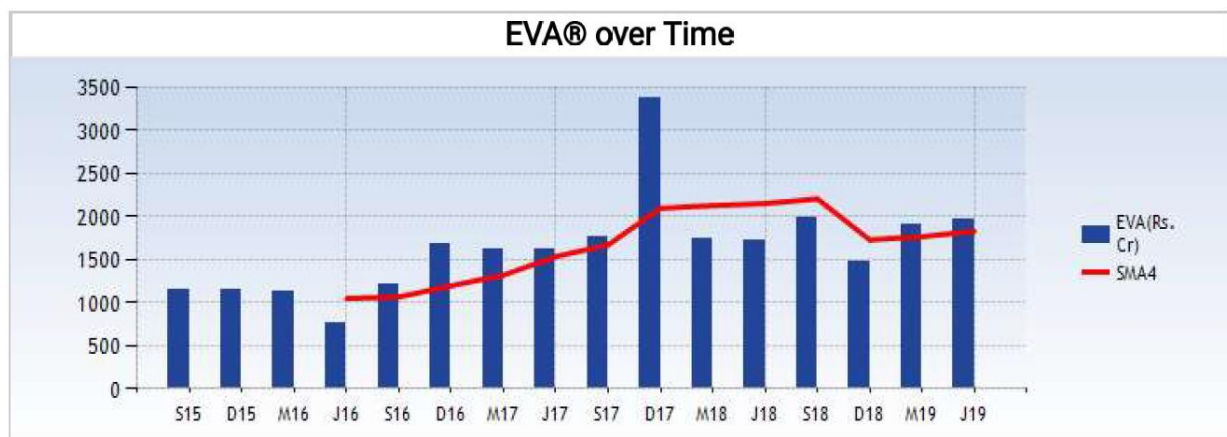
## 1) Infosys:

**Infosys Limited** is an Indian multinational corporation that provides business consulting, information technology and outsourcing services. It has its headquarters in Bangalore, Karnataka, India.

Infosys is the second-largest Indian IT Company and 596th largest Public Company in the world based on revenue. On March 29, 2019, its market capitalization stood at \$46.52 billion.

**Listing:** Its Initial Public Offering (IPO) was launched in February 1993 with the offer price of ₹95 (₹510 in 2018 Inflation adjusted). It was bailed out by US Investment Bank Morgan Stanley after it was undersubscribed.

### A) Is Business Value Maximization, an objective of Infosys Limited?



(Fig. showing E.V.A. of Infosys over a span of 3 years per Fin. Year Quarter)

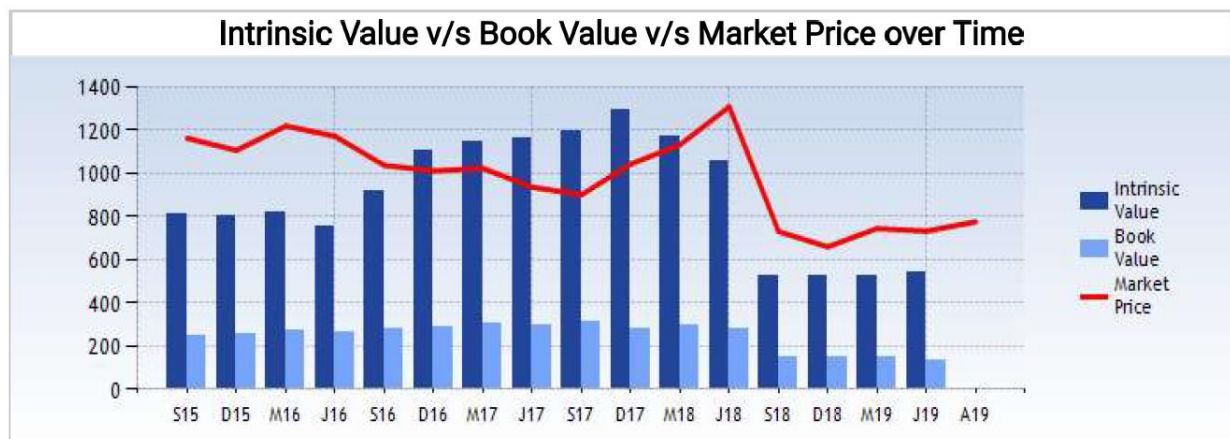
**Observations:** This clearly shows that “BUSINESS IS GENERATING ENOUGH PROFITS TO COVER ITS COST OF CAPITAL” and company, at the least maintained its value during these 3 years. **So, the Company has clearly achieved the objective of Maximizing Its Business Value.**

## B) Does Infosys Limited have Shareholder Wealth Maximization as their objective?

Now let us find out this using M.V.A. (Market Value Added) and T.S.R. (Total Share Holders Return) of the Company.

### 1) Market Value Added:

Observing the figure below,



(Fig. showing the M.V.A. of Infosys Limited)

Market price of Infosys is always higher than Intrinsic Value and Book Value of the Company during every Quarter throughout the time. These factors account for high MVA. Companies with a high MVA are attractive to investors not only because of they will more likely to produce positive returns but also because it is a good indication they have strong leadership and sound governance. So, it is clear that Infosys has better MVA throughout the period.

### 2) Total Shareholder's Return:

**TSA= Dividend Yield + Capital Gain**

**= 2.77% + 0.83%** (According to Share Prices on 14<sup>th</sup> August 2019)

**= 3.6%**

Infosys Limited has Total Shareholder's Return value of 3.6%.

From these above value, it is clear that the Company is trying to improve the shareholder's wealth, thereby it even has share price maximization as its objective.

### C) Does Infosys have Share Price Maximization as their objective?

During the three years period, the company had rewarded its shareholders with:

Announcement Date	Ex Dividend Date	Dividend (%)	Dividend Type
12-Apr-19	13-Jun-18	210	Final
11-Jan-19	24-Jan-19	80	Special
16-Oct-18	25-Oct-18	140	Interim
13-Apr-18	14-Jun-18	410	Final
13-Apr-18	14-Jun-18	200	Special
24-Oct-17	31-Oct-17	260	Interim
13-Apr-17	1-Jun-17	295	Final
14-Oct-16	21-Oct-16	220	Interim

And in addition to these, the company has rewarded its shareholders with bonus shares at 1:1 ratio on 5 September, 2018. This gives us a clear picture that the company is trying its best to perform well, and reward the stock holders in time and shows that the company is even rewarding the residual claim customers in a good way and this leads to conclusion among new investors that the company works well for the investors and thereby demand for the stocks of Infosys increase and thereby share price increases. This can be clearly seen on graph in the figure below. So this says that Infosys Limited has even the objective of share price maximization.

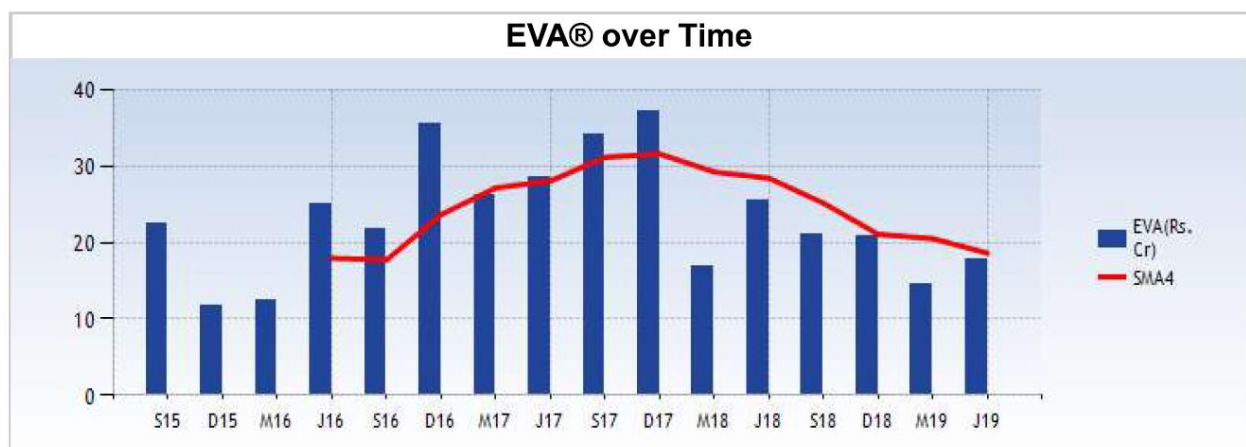


(Fig. showing stock price trend of Infosys over past 3 years where Yellow bubble indicates the day where bonus shares were declared and blue ones indicates the day(s) where dividends were announced)

### 3) Persistent Systems Limited:

**Persistent Systems** is a technology services company which was incorporated on 16 May 1990 as Persistent Systems Private Limited in Pune. A new Certificate of Incorporation was issued and it was subsequently converted into a Public Limited company on 17 September 2010 with the name Persistent Systems Limited. Shares in the company were listed on the National Stock Exchange of India in March 2010.

#### 1) Is Business Value Maximization, an objective of Persistent Systems Limited?



(Fig. showing E.V.A. of Persistent Systems Limited over a span of 3 years per Fin. Year Quarter)

**Observations:** This clearly shows that “BUSINESS IS GENERATING ENOUGH PROFITS TO COVER ITS COST OF CAPITAL” and the Company, at the least maintained its value during these 3 years. So, the Company has tried its best and just achieved the objective of Maximizing Its Business Value.

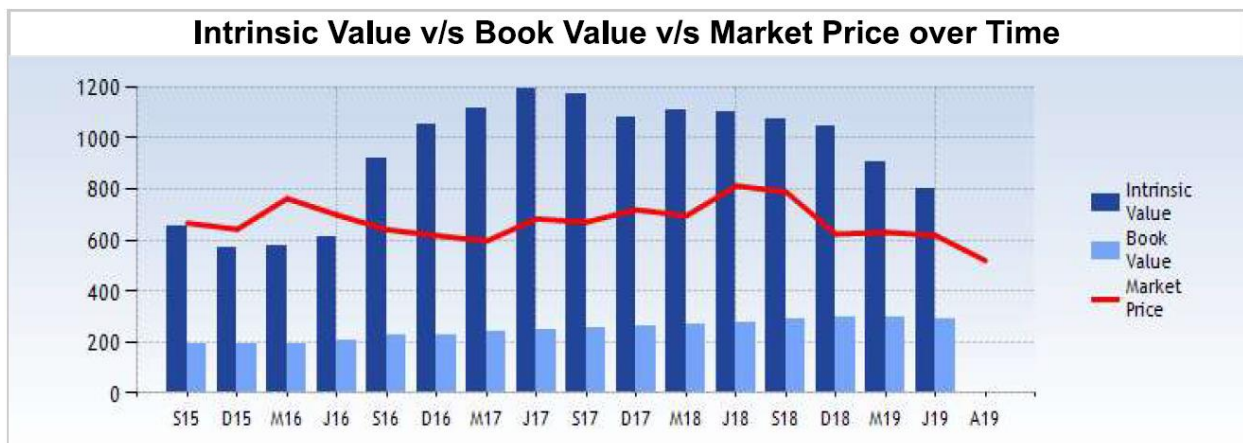
#### 2) Do Persistent Systems Limited have Shareholder Wealth Maximization as their objective?

Now let us find out this using M.V.A. (Market Value Added) and T.S.R. (Total Share Holders Return) of company.

##### 1) Market Value Added :

Market price of Persistent systems is always lower than intrinsic value and higher than book value of company during every quarter throughout the time. Companies with low MVA are not attractive to investors because they are unable to meet their investor’s expectations in future properly. So it is clear that Persistent Systems Limited have lower MVA throughout the period.

Observing the figure below,



(Fig. showing the M.V.A. of Persistent Systems Limited)

Market price of Persistent systems is always lower than intrinsic value and higher than book value of company during every quarter throughout the time. Companies with low MVA are not attractive to investors because they are unable to meet their investor's expectations in future properly. So it is clear that Persistent systems have lower MVA throughout the period.

## 2) Total Shareholder's Return

**TSA= Dividend Yield + Capital Gain**

= 2.04% + (-2.26%) (As on 14<sup>th</sup> August 2019 )

= -0.22%

Persistent Systems Limited has total Shareholder's Return Value of -0.22%.

From these above values, it is clear that though the company is trying to improve the shareholder's wealth by functioning, it has a negative total shareholder's return value, therefore it cannot have shareholder's wealth maximization as its objective.

## C) Does Persistent Systems Limited have Share Price Maximization as their objective? :

As the company is unable to attain the objective of share holders wealth maximization, the company, must try to first attain that objective and then later they can try to maximize their share price value. This is clear from their dividend issuing pattern and percentage of dividend issued. They couldn't even announce bonus shares, which clearly imply that the Company has to focus on many objectives before Share Price Maximization.



During the three years period, the company had rewarded its shareholders with:

Announcement Date	Ex Dividend Date	Dividend (%)	Dividend Type
27-Apr-19	11-Jul-19	30	Final
28-Jan-19	6-Feb-19	80	Interim
24-Apr-18	19-Jul-18	30	Final
27-Jan-18	2-Feb-18	70	Interim
25-Apr-17	12-Jul-17	30	Final
21-Jan-17	31-Jan-17	60	Interim
9-Mar-16	17-Mar-16	30	Interim
23-Jan-16	2-Feb-16	50	Interim

This could be clearly found out from the trends in stock prices of Persistent Systems Limited during the period.



(Fig. showing stock price trend of Persistent Systems Limited over past 3 years where blue bubbles indicate the day(s) where dividends were announced).

## **Conclusion:**

- ⇒ Infosys Limited is relatively focusing more Wealth Maximization and this is leading to Share Price Maximization.
- ⇒ Persistent systems has achieved only Business Value Maximization objective
- ⇒ With a declining share price, with EVA being positive in the past few years, we can conclude that Persistent Systems is trying to focus on Business Value Maximization.
- ⇒ Persistent systems can try maximizing their shareholders wealth, before trying to maximize the share price.