

**Class 11<sup>th</sup> | ECONOMICS**



# **MEANING, SCOPE AND IMPORTANCE OF STATISTICS**

**LECTURE - 3**

## IMPORTANCE OF STATISTICS

Statistics is widely used in modern times. Initially, it was employed by the Government to collect information on public affairs. But, gradually, its use was extended to all fields. We shall discuss briefly, the importance of statistics in the following major areas:

- Importance to the Government ✓
- Importance in Economics ✓
- Importance in Economic Planning ✓
- Importance in Business ✓





# IMPORTANCE OF STATISTICS

- Importance of Statistics to the Government

The subject of statistics was initially used by the ancient rulers in assessment of their military and economic strength. Gradually, its scope was enlarged to tackle other problems relating to political activities of the economy.

- In the present scenario, Government collects the largest amount of statistics for various purposes.
- The role of government has increased and requires much greater information in the form of numerical figures, to fulfill the welfare objectives in addition to the efficient running of their administration.



## IMPORTANCE OF STATISTICS

- Popular statistical methods such as time-series analysis, index numbers, forecasting and demand analysis are extensively used in formulating economic policies.)

**For example**, statistical investigations provide data about paying capacity of the people, which helps the government in deciding the rates of direct and indirect taxes.

*Purchasing  
Power*





# IMPORTANCE OF STATISTICS

voting → Data

- In a democratic country like India, various political groups are also guided by the statistical analysis regarding their popularity in the masses.
- So, it can be concluded that it is impossible to think about functioning of the modern government, in the absence of statistics.



# IMPORTANCE OF STATISTICS

- **Importance of Statistics in Economics**

Statistics is an indispensable tool for a proper understanding of various economic problems.

- Every branch of economics takes support from statistics in order to prove various economic theories in it.
- Statistics provides important guidelines for the formulation of various economic policies.





## IMPORTANCE OF STATISTICS

For example, output of agriculture, volume of exports, prices of commodities, etc. In each case, the data is affected by a multiplicity of factors. Further, it can be shown that the other conditions prescribed for statistical data are also satisfied.

Thus, we can say that the study of various economic problems is essentially the one of a statistical nature.



# IMPORTANCE OF STATISTICS

Price  $\uparrow$   
Demand  $\downarrow$

Some of the uses of statistics in economics are as follows:

- **Formulation of Economic Laws:** The famous 'Law of Demand' and the concept of 'Elasticity of Demand' have been developed by the Inductive method of generalisation, which is also based on statistical principles.
- **Helps in understanding and solving an economic problem:** Statistical data and statistical methods play a vital role in understanding and solving economic problems such as poverty, unemployment, disparities in the distribution of income and wealth, etc.)





## IMPORTANCE OF STATISTICS

Airlines

kirane ki dukaan

Railways

- **Study of market structures:** Study of perfect competition, oligopoly, monopoly, etc. requires statistical comparison of market prices, cost and profits of individual firms. Statistics also facilitates inter-sectoral and inter-temporal comparison.
- **Helps in establishing mathematical relation:** Statistical methods can also be used to estimate mathematical relation and cause and effect relationship between various economic variables. For example, effect of change in prices on quantities demanded of a commodity, shows the mathematical form of demand relationship between the two variables.

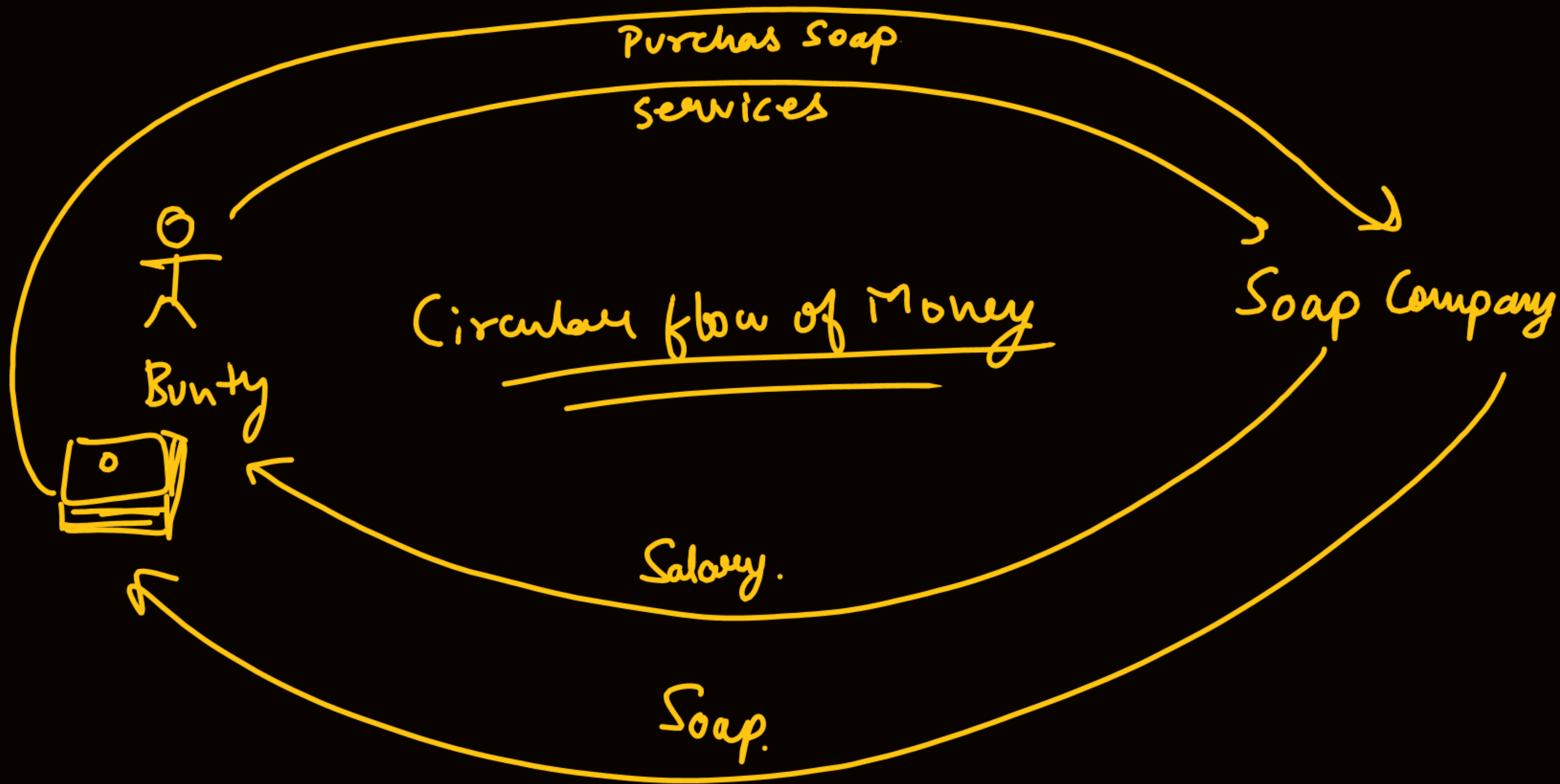


# IMPORTANCE OF STATISTICS

- **Useful to study behaviour of different economic concepts:** Trend-series analysis is used to study the behaviour of prices, production and consumption of commodities, money in circulation, and bank deposits and clearings.
- **Price Analysis:** Statistical surveys of prices help in studying the theories of prices, pricing policy and price trends as well as their relationship to the general problem of inflation.







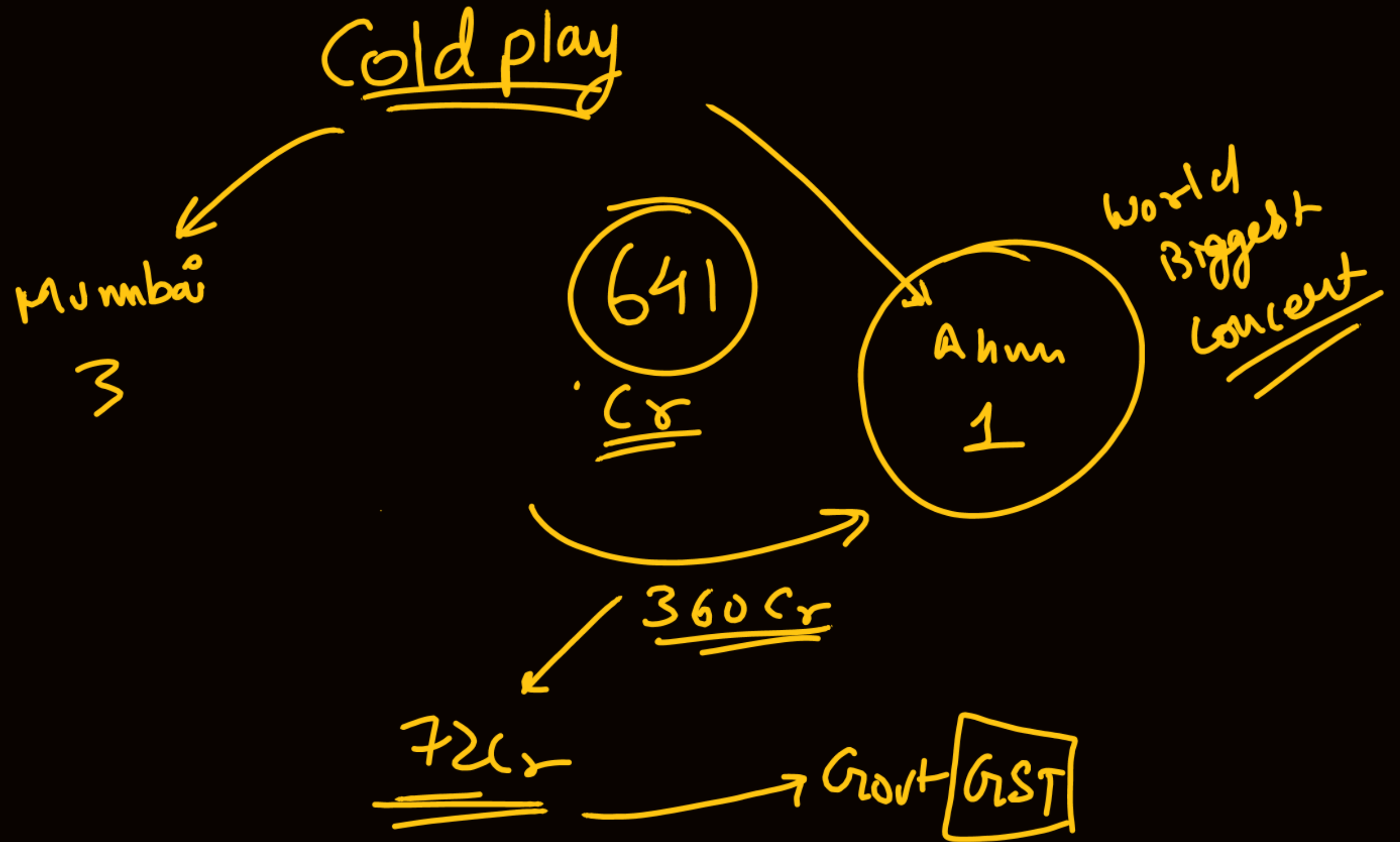
# IMPORTANCE OF STATISTICS

Statistics is of great significance considering the various Economic Activities:

- **In the study of 'Consumption':** Statistics help to find out the ways in which different groups of people spend their income on necessities, comforts and luxuries. Such statistics is very helpful for determining standard of living and taxable capacity of the people.
- **In the study of 'Production':** Statistics help to measure and compare productivity of different factors of production (land, labour, capital and enterprise). Statistics also helps to adjust the supply according to demand.







~~50~~ 10log

~~100~~ People

Demand ↑



1 car → 2 car.

Supply ↓

3.5 car



# IMPORTANCE OF STATISTICS

- **In the study of 'Exchange':** In exchange, price determination through market forces of demand and supply is studied. Statistics help to study the theory of price determination.
- **In the study of 'Distribution':** In distribution, we study how national income generated is distributed among different factors of production. Statistical data helps in solving various problems that arise due to unequal distribution of national income and wealth.



2030

# IMPORTANCE OF STATISTICS .

## Importance of Statistics in Economic Planning

Economic Planning is indispensable for achieving faster rate of growth through the best use

- At every stage of economic planning, there is a need for figures and statistical methods. .
- Using statistical techniques, it is possible to assess the amounts of various resources available in the economy and accordingly determine whether the specified rate of growth is sustainable or not.





## IMPORTANCE OF STATISTICS

- Statistical analysis of data regarding an economy may reveal certain crucial areas, like increasing rate of inflation, which may require immediate attention.

So, it is rather impossible to think of a situation where economic planning can be done without the use of statistical techniques.



# IMPORTANCE OF STATISTICS

## Importance of Statistics in Business

Statistics is important in the business due to following reasons:

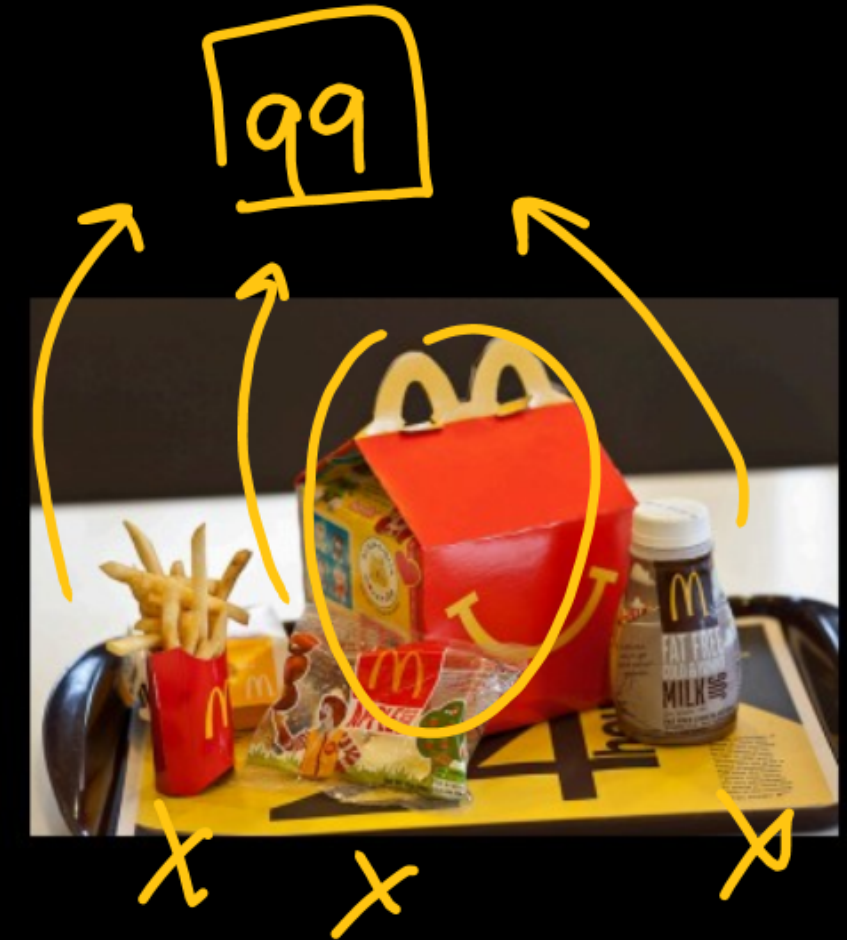
- **For Establishing a Business Unit:** Before starting a business, it is necessary to know its feasibility. It involves detailed information about location, size of output, availability of inputs, taxes, size of market share, turnover, etc. Statistics provide guidelines, which may prove to be helpful in making key decisions.





## IMPORTANCE OF STATISTICS

- **For Making Marketing Strategy:** Before a product is launched, market research team makes use of various statistical techniques (like pilot survey), to analyse data on population, purchasing power, habits of the consumers, competitors, pricing, etc. Such studies reveal the possible market potential for the product.
- **For Estimating the demand of product:** After launching of the business, the next step is to estimate the present as well as the future demand of the product. Statistical methods are extremely helpful in preparing trend lines leading to reliable forecasting.



150-180

## IMPORTANCE OF STATISTICS

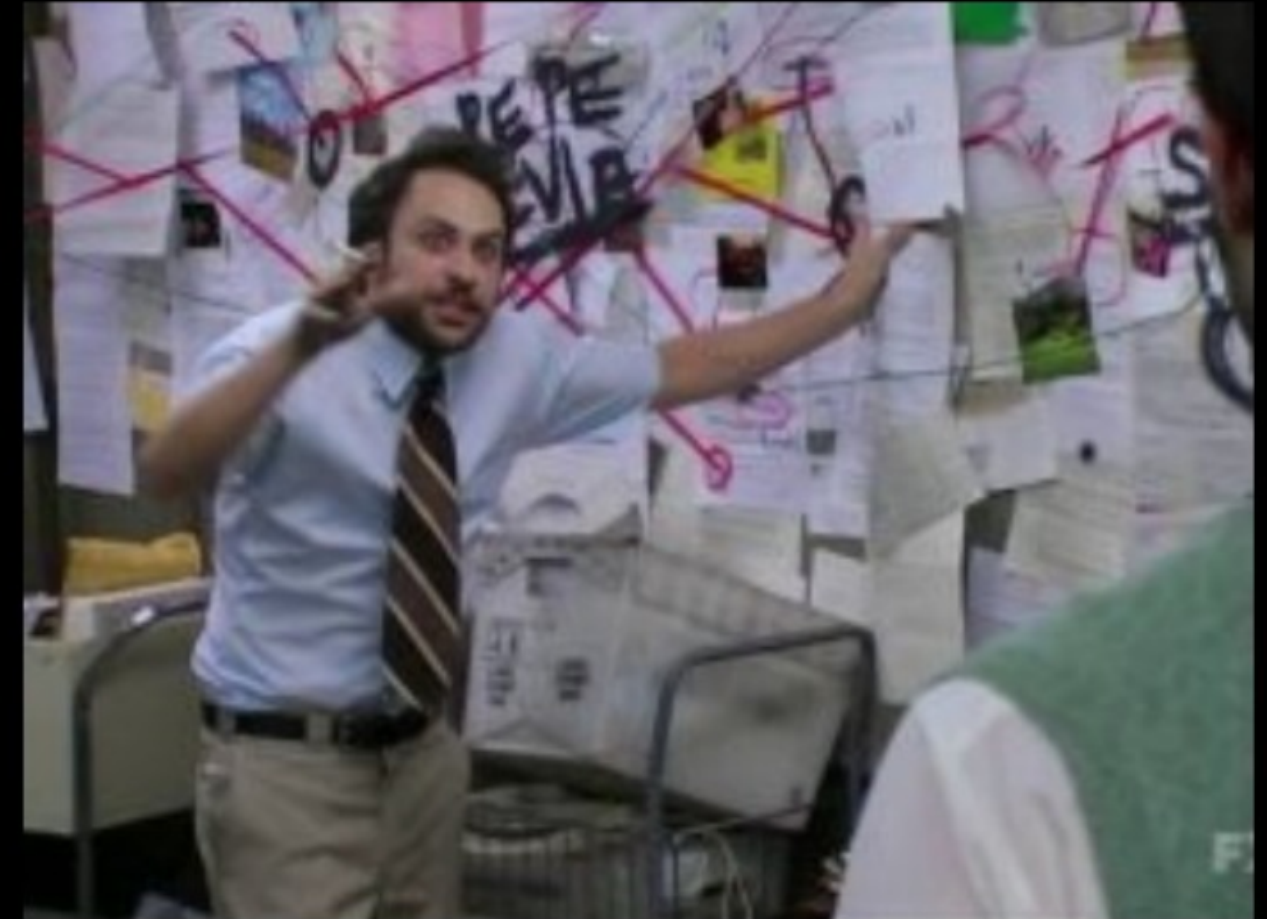
$$\text{Demand} = 100$$

$$\uparrow 100$$

$$250 \times$$

$$10 \times$$

- **For Production Planning:** The businessman has to plan its production so that he is able to meet the demand of its product and incurs minimum losses on account of over or under production. Careful production planning is essential for maintaining a balance between demand and supply.
- **For Making Quality Control:** Statistical techniques (like preparation of control charts) can also be used to control the quality of the product manufactured by a firm.





# IMPORTANCE OF STATISTICS

- **Accounts writing and auditing:** Every business firm keeps accounts of its revenue and expenditure.
  - For taking certain decisions in a business, these accounts are required to be summarized in a statistical way.
  - This may consist of the calculation of typical measures like average production per unit of labour, average production per hour, average rate of return on investment, etc.
  - Statistical methods may also be helpful in generalizing relationships between two or more of such variables.

Accounts students - Jab mera  
balancesheet match nahi hota







# BYE KABOOTARS!!



KYA YAAR  
BHAIYA

**STAY CONNECTED  
& KEEP LEARNING!!**

**"Together We can, we will!"**

