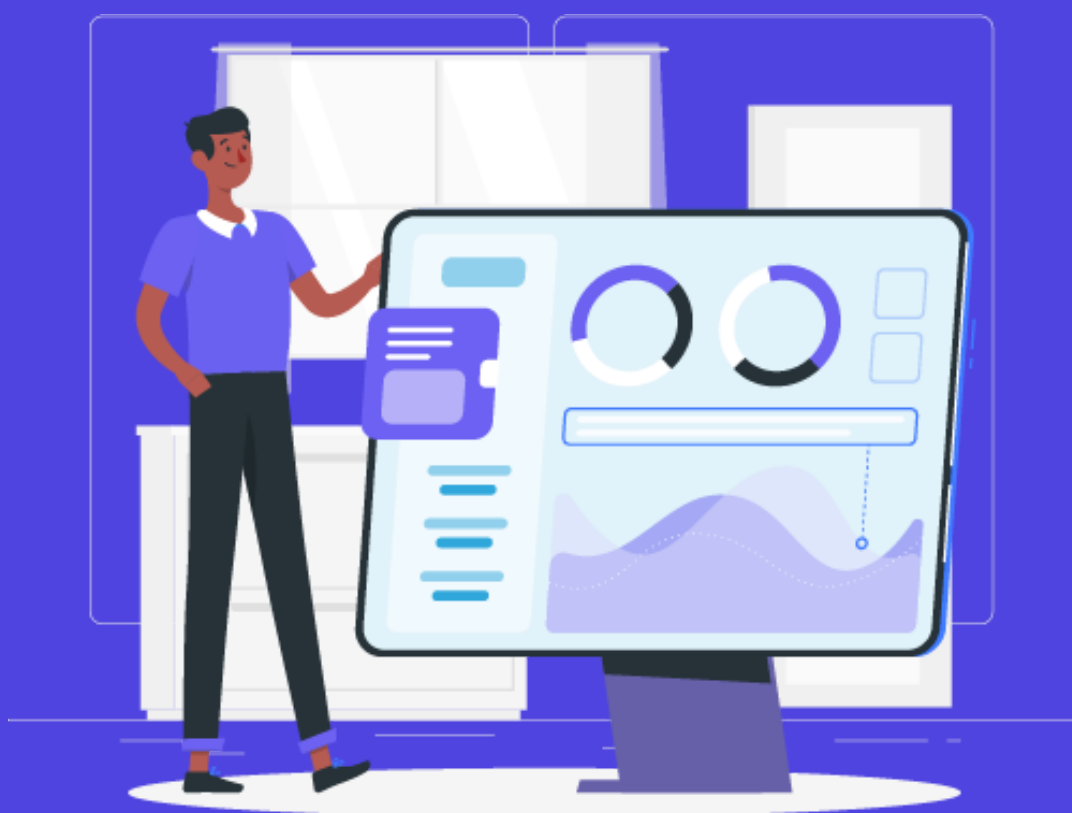


“Caselets and Tables”

Pre Read



Relevel
by Unacademy

What is Data Analysis/Interpretation?

In simple terms, data interpretation is related to calculations or operations upon the given data to arrive at meaningful conclusions. The conclusions can either be quantitative or qualitative. In a few cases, it may be sufficient to merely organize or reorganize the given data without the necessity of performing any actual calculations on it. The method of analysis depends upon the nature, volume, and complexity of the data and also upon the kind of conclusions that need to be drawn.

Why Data Interpretation?

A business manager constantly deals with decisions that must be made, usually within considerably less time available on hand. Since effective decisions cannot be made without background information and analysis, anyone who is not comfortable with data and data interpretation will find it very difficult to cope up with his or her work.

Methods of Presenting Data:

Data Tables: It is one of the easiest and the most accurate ways of presenting data in a non-graphical manner. It correlates two variables at a time. The difficulty associated with this type of data representation is that it requires much closer reading as compared to other forms of data representation. Hence, it is comparatively complicated and time-consuming to interpret. The calculations based on a data table to draw inferences are easy in terms of formulae but are lengthy

City	Arrival time (hours)	Departure time (hours)	Cumulative distance (Km)
A	--	09:00	0
B	11:00	11:02	80
C	14:50	14:55	281
D	17:10	17:12	391
E	22:40	22:45	730
F	00:05	00:15	800
G	01:00	01:02	845
H	04:15	04:28	995
I	06:25	--	1100

From the above table, one can obtain-

1. Distance between any two stations.

Question: Find the distance between stations C and D.

Ans: Distance between stations C and D is $391 - 281 = 110$ km

2. The average speed between the stations. (Average speed = $\frac{\text{Total distance travelled}}{\text{total time taken}}$)

Question: Find the average speed of the bus between stations A and B.

Ans: Distance travelled = $80 - 0 = 80$ km

Time taken = $11:00 - 09:00 = 2$ hrs

Average speed between A and B = $80/2 = 40$ km/hr

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S.N.	Category	2019-2020		2020-2021	
		Demand	Availability	Demand	Availability
1	Shapes	6960	5725	9745	9360
2	Flats	4360	5020	6300	660
3	Railway Materials	400	550	450	560

Question 1: In 2019-2020, approximately, what percent of the total demand for Steel is the demand for flats?

Solution: In 2019-2020, demand for flats = 4360

In 2019-2020, total demand = 6960 + 4360 + 400 = 11720

Required percentage = $\frac{4360}{11720} \times 100 = 37.2\%$ (approx.)

Question 2: The percentage growth in the demand for Railway Material over the period from 2019-2020 to 2020-2021 is:

Solution:

Percentage growth in demand = $\frac{(\text{demand in 2020-2021}) - (\text{demand in 2019-2020})}{\text{demand in 2019-2020}} \times 100$

$$= \frac{450-400}{400} \times 100 = 50/4 = 12.5\%$$

Question 3: Which of the following statement(s) is necessarily true?

- (1) The demand for Shapes as a percentage of the total demand for Steel was almost the same for 2019-2020 and 2020-2021.
- (2) The shortage of Shapes is only due to excess availability of Flats and Railway Materials.
- (3) The growth rate in demand for Shapes is greater than the growth rate in the supply of Shapes. (Assume all the available material is supplied)
- (4) The total demand as a percentage of total availability of Steel (all categories) in 2019-2020 is expected to be 125%.

Solution:

Statement (1).

For 2020-2021, required ratio for Shapes = $\frac{9745}{9745+6300+450} \times 100 = 59\%$

For 2019-2020, required ratio for Shapes = $\frac{6960}{6960+4360+400} \times 100 = 59\%$

Hence, statement (1) is true.

Statement (2).

There is no information available on the reason for the shortage of Shapes, and one cannot deduce the statement. Hence, incorrect.

Statement (3).

$$\text{The growth rate of demand for Shapes} = \frac{9745-6960}{6960} \times 100 = 40\%$$

$$\text{The growth rate of supply for Shapes} = \frac{9360-5725}{5725} \times 100 = 63.5\%$$

Hence, incorrect.

Statement (4).

$$\text{In 2020-2021, Total demand} = 9745 + 6300 + 450 = 16495$$

$$\text{Total availability} = 9360 + 6600 + 560 = 16520$$

$$\text{Total demand as a percentage of total availability} = \frac{16495}{16520} \times 100 = 99.8\%.$$

Hence, incorrect.

Caselet Form:

In this form of data representation, the data is given in a case (paragraph) form. It is for the reader to read the given case or section and cull out the required data and arrange it in a suitable form to interpret it meaningfully.

Example: Anil Ambani invested 30% of the amount with him in shares, 25% of the amount in NSCs, 50% of the remaining amount in F.D.s, and the rest inland. At the end of the first year, the value of his shares increased by 20%, NSCs gave him a tax-free return of 5%, F.D.s gave him a return of 5%, but he had to pay a tax of 10% on the interest while the land prices appreciated by 15%. In the second year, as there was a slowdown in the market, the value of his shares decreased by 10%, while NSCs gave him an interest-free return of 4%. F.D.s too gave him a return of 4%, but he had to pay a tax of 20% on the interest, and the land prices appreciated by 4% and became Rs.8,61,120.

Question 1. What is the value of his amount invested in F.D.s at the end of the first year?

- A. Rs. 7,26,200
- B. Rs.7,52,400
- C. Rs.7,84,600
- D. Rs.18,800

Question 2. What were the total returns obtained by him from NSCs by the end of the second year?

- A. Rs.73,600
- B. Rs.75,800
- C. Rs.77,400
- D. Rs.79,200

Question 3: In which of the schemes did he get the highest return by the end of the first year?

- A. Shares
- B. NSC
- C. FDs
- D. Land

Question 4: What is the ratio of total return in shares by the end of the second year compared to the increase in the price of land from the beginning of the first year to the end of the second year?

- A. 20 : 87
- B. 40 : 107
- C. 60 : 127
- D. 80 : 147

Question 5: Had there been no slowdown in the market, and his investment in shares had appreciated from the end of the first year to the end of the second year by 15%, then what would be the value of his investment in shares at the end of the second year?

- (A) Rs.13,24,800
 (B) Rs.14,56,600
 (C) Rs.15,72,400
 (D) Rs.16,84,400

Solution:

Let us restructure the given data first.

Let his total investment in shares, NSCs, FDs, and land be $100x$. The following table shows his invested amount and their respective values at the end of the first year and the second year.

Amount	Shares	NCS	FDs	Land
Invested	$30x$	$25x$	$22.5x$	$22.5x$
At the end of the first year	$36x$	$26.25x$	$23.5125x$	$22.875x$
At the end of the second year	$32.4x$	$27.3x$	$24.2649x$	$26.91x$

$$\Rightarrow 26.91x = \text{Rs. } 8,61,120$$

$$x = \text{Rs. } 32,000$$

Now, we can answer the given questions very easily.

Ans 1. The value of the amount invested by him in F.D.s
 $= (23.125) (32,000) = \text{Rs. } 7,52,400$. Hence, choice (B)

Ans 2. The total return obtained by him from NSC by the end of the second year
 $= (27.3 - 25) (\text{Rs. } 32,000) = \text{Rs. } 73,600$. Hence, choice (A)

Ans 3. Clearly from the table, the return from shares were the highest by the end of the first year. Hence, choice (A)

Ans 4. The required ratio of return from shares to the increase in the price of the land
 $= (32.4x - 30x) : (26.91x - 22.5x)$
 $= 2.4x : 4.41x$
 $= 80 : 147$. Hence, choice (D)

Ans 5. Value of his investment in shares by the end of the second year $= (1.15) (36) (\text{Rs. } 32,000) = \text{Rs. } 13,24,800$. Hence, choice (A)