

→ Demerits of Arithmetic Mean.

Arithmetic Mean suffers from following demerits:

(1) Effect of Extreme Value:-

The main defect of arithmetic mean is that it gets distorted by extreme value of the series. Therefore, it is not always an accurate measure.

(2) Mean Value may not figure in the series at all:-

The mean value may sometimes be that value which does not figure in the series at all.

The average of 2, 3 and 7 is $\frac{2+3+7}{3} = 4$ which is not there in a series. It further erodes its representative character.

3. Laughable Conclusions:-

Arithmetic mean sometimes offers laughable conclusions. If there are 50 students in class 6

and 51 student in class 7, the average strength of these two classes would come to $\frac{50+51}{2} = 25.5$ student, which is indeed very funny because there cannot be half student.

④ Unsuitability: $\rightarrow$

Arithmetic mean is not a suitable measure in case of percentage or proportionate values.

⑤ Misleading Conclusions: $\rightarrow$

Arithmetic Mean sometimes offers misleading conclusions. following example illustrates this point.

Income of Two individual A and B for the year 2011-13.

Year	Income	
	A	B
2011	1000	3000
2012	2000	2000
2013	3000	1000
	$\bar{x} = \frac{1000 + 2000 + 3000}{3} = 2000$	$\bar{y} = \frac{3000 + 2000 + 1000}{3} = 2000$

In the table, average income of both A and B is same suggesting that A and B have been equally rich during the years that while the income of A is increasing over years, that of B is decreasing. Thus, arithmetic mean offers misleading conclusions.

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Thank you.