

Frequently Asked Questions

1. What do you mean by seasonal variation?
Answer: Seasonal variations can be attributed to periodic movements in business activity. Seasonal does not necessarily align to the different seasons in a year but to certain kind of variations that are periodic in nature and where the cycles repeat.
2. Which kind of data exhibits seasonal variation?
Answer: When data are expressed annually there is no seasonal variation. However monthly or quarterly data frequently exhibit strong seasonal movements and considerable interest attaches to devising a pattern of average seasonal variation.
3. What is the preliminary decision made in a seasonal variation?
Answer: Before attempting to measure seasonal variations, certain preliminary decisions must be made. For example it is necessary to decide whether weekly quarterly or monthly indices are required. This will be decided in the light of the nature of problem and the type of data available. To obtain the statistical description of a pattern of seasonal variation it will be desirable to first free the data from the effects of the trend cycles and irregular variations.
4. What is a specific & typical seasonal index?
Answer: A specific seasonal index refers to the seasonal changes during a particular year. A typical seasonal index is obtained by averaging a number of specific seasonals. It is thus a generalized expression of seasonal variations for a series.
5. What are the different methods of measuring seasonal index?
Answer: There are several methods of measuring seasonal variations; however the most popular amongst them used in practice are Method of Simple Average, Ratio to Trend method, Ratio to Moving Average method and Link Relative method.
6. What do we understand by the method of simple average?
Answer: This is the simplest method of obtaining the seasonal index. Seasonal index for a month is equal to monthly average divided by average of monthly average into 100. If instead of monthly data, we are given weekly or quarterly data, we will compute the weekly or quarterly averages.
7. What is ratio to trend method?
Answer: This is a method of calculating a seasonal index assuming that a seasonal variation for a given month is a constant fraction of trend. It is also known as the Percentage to Trend method. It is relatively a simple method and an improvement over the method of simple averages.
8. What is ratio to moving average method?
Answer: Ratio to Moving Average Method: also known as the percentage of moving averages is the most widely method of measuring Seasonal variations. Thus the ratio to the moving average represents irregular and seasonal influences. If the ratio for each work over a period of years is averaged, most random influences will be eliminated.
9. Which method is best for calculation of the seasonal variation?
Answer: Ratio-to-Moving Average outweighs Ratio-to-Trend method due to the various advantages, flexibility and coverage of all aspects of the data and variations that makes it the popular choice amongst the statisticians to adopt this method.

10. What is important in selecting the period of computing in seasonal index?
Answer: It is important to take into consideration the number of years that are used for arriving at seasonal index since using a short period is affected by conditions prevailing during one phase of the business cycle or random influences.
11. Can we use mean in averaging computing in seasonal index?
Answer: Arithmetic mean is affected by every item in the series; it is used only when the number of years is large.
12. Can we use the median in averaging computing in seasonal index?
Answer: When the period is shorter, it is better to use the median instead of arithmetic mean since usage of mean would imply that the cyclical factors or the random factors would distort the value. Median is a positional average and is not influenced by the inclusion or exclusion of a year or two.
13. How do we eliminate seasonal index?
Answer: The seasonal influences can be removed from time series data by dividing the actual values for each month by the seasonal index. $T \times S \times C \times I / S = T \times C \times I$
14. How is seasonal index used analytically?
Answer: Analytically a Seasonal Index is used to adjust original data in order to yield de-seasonalized data that permits study of short run fluctuations of a series not associated with seasonal variations. Divide each of the original observations by appropriate seasonal index for that month, which is $T \times C \times I = T \times S \times C \times I / S$
15. How is seasonal index used synthetically?
Answer: Synthetically seasonal index is useful in planning sales or production for specific periods. For e.g. if a firm expects to sell Rs. 36 Lakhs worth of goods during the coming year, average monthly sales of Rs. 3 Lakhs is expected. If the volume of sales is subjected to seasonal variations, the actual monthly values will deviate from the average.