**Example 02**: Monthly employees wholesales

1. An increasing seasonal variation with an upward trend
2. This is a slowly dice down pattern. Therefore, the series is non-stationary

There are trend components.

After first non-seasonal difference the data:

* + This is a seasonal pattern. This is non-stationary

Most T values are greater than 2 in stationary and non-stationary areas.

The suitable differencing method is seasonal difference.

After first seasonal differenced the data:

* + ACF cuts off at non-seasonal lag 1 in non-seasonal area and ACF cuts off at seasonal lag 1 in seasonal area.
  + PACF cuts off at non-seasonal lag 1 in non-seasonal area and it cuts off at seasonal lag 2 in seasonal area.

Tentative model

* + p = 1 = cuts off at lag value in PACF in non-seasonal PACF

d = 1 = no of trend difference

q = 1 = cuts off lag value in ACF in non-seasonal

P = 2 = cuts off at lag value in PACF in seasonal

D = 1 = no of seasonal differences

Q = 1 = cuts off at lag value in ACF in seasonal

S = 12 = seasonal length

SARIMA (1,1,1) (2,1,1)12