

The purpose of this thesis was to find guiding principles for spare part optimization in Ericsson THW division. The goal was to reduce inventories but in the same time not to impact customer service level. The problem was that spare parts were ordered without a system and that can cause stock outs and overstock at the same time.

End products demand forecast was investigated and analysed. Actually produced items are linked to the forecasts. Calculating the forecast's accuracy gives the basis to use that information in the following developments. ABC analysis was conducted in order to get the focus point on which items emphasis has to be put on. Correlation and regression analysis were conducted to find out whether there is dependence with time lags between end product production and delivered spare parts.

It was discovered that end product forecast and actually produced production are on the needed level of accuracy for using that information further. ABC analysis reveals that 10% unique items of all the made shipments represent 90% of all the items shipped. Correlation and regression analysis gives both negative and positive results, which is explained by the fluctuating demand and short time series.

Several guidelines how to enhance inventory management e.g. improvements in supplier and customer management and ordering parts in sequences according with the lead times for the new test systems were developed.