Correlation coefficient and confidence intervals

Finance

As we can see most of the variables have relationships with the price of the apartments. The price of the apartments is most strongly related to the number of bedrooms. The lower limit of the 95% confidence interval of the correlation between price and the number of the bedroom is 0. 30 whereas the upper limit for the same is 0. 61. The positive value of r indicates that the price increases as the number of bedrooms increase in the flat.

As expected from intuition, the price is inversely related to the distance of the apartment from the town. As the distance from the town increases, the price of real estate decreases. Both the lower limit and the upper limit of 95% confidence interval of r is in the negative region.

The number of pools is also inversely related to the price of real estate. The upper limit and lower limit of the correlation coefficient are both in the negative region which implies that in 95% of the samples, the two variables will have a negative relationship amongst them.

The variable Township is positively related to the price of the real estate for the data set given. But, the lower limit of the correlation coefficient between the two variables is negative indicating that in certain data sets, the relationship between the two variables might be negative indicating that the price of the real estate decreases as the number of township increases. The possible reason for the same might be the increase in the congestion levels which may result in an increased number of townships.

Generally, the Pearsons r coefficient is significant when it is higher than 0. 2 with degrees of freedom 103 and $p < 0.05$. As we can see from the table, all the variables except township are having a significant relationship with the price of the real estate. Based on this inference, we can say that all the

variables except township have a significant relationship with the price of real estate.