

I used R, python, and QGIS for analyzing. I attached some related code picture below. If you want more information about my using code. Just contact me by '[youthmoreee@gmail.com](mailto:youthmoreee@gmail.com)'! Thank you :) have a nice day!

```
> (m <- lm(매출액~.,data=dfs))

Call:
lm(formula = 매출액 ~ ., data = dfs)

Coefficients:
(Intercept)      카페수      업무시설      문화시설      외국단기
-2.253e+05      2.441e+03      9.540e+02      6.153e+02      3.286e+00

> summary(m)

Call:
lm(formula = 매출액 ~ ., data = dfs)

Residuals:
    Min       1Q   Median       3Q      Max
-195990  -75098   -8697    70988   275934

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -2.253e+05  7.983e+04  -2.823  0.01052 *
카페수       2.441e+03  2.746e+02   8.890  2.2e-08 ***
업무시설     9.540e+02  2.566e+02   3.718  0.00136 **
문화시설     6.153e+02  5.190e+02   1.186  0.24964
외국단기     3.286e+00  3.731e+00   0.881  0.38894
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 127000 on 20 degrees of freedom
Multiple R-squared:  0.9903,    Adjusted R-squared:  0.9883
F-statistic: 509.6 on 4 and 20 DF,  p-value: < 2.2e-16
```

```
In [19]: 1 youth_corr = significantCorr(building, living.loc[:, '인구
2         2030'])
3         len(economical_corr)
```

Out[19]: 4

```
In [20]: 1 sorted(youth_corr.items(), key = sortKey)[:10]
```

```
Out[20]: [('문화및집회시설', (0.6440459764431613, 0.0005123332051450738)),
          ('운동시설', (-0.6078706219061539, 0.00126728628402651)),
          ('위락시설', (0.5807894385534255, 0.002333055870255279)),
          ('위험물저장및처리시설', (-0.4886121400960679, 0.013199160340580222))]
```

### ▼ 1.2.1 카페 매출액

```
In [51]: 1 building.index
```

```
Out[51]: Index(['강남구', '강동구', '강북구', '강서구', '관악구', '광진구',  
              '구로구', '금천구', '노원구', '도봉구', '동대문구', '동작구',  
              '마포구', '서대문구', '서초구', '성동구', '성북구', '송파구',  
              '양천구', '영등포구', '용산구', '은평구', '종로구', '중구',  
              '중랑구'],  
              dtype='object', name='구')
```

```
In [59]: 1 revenue_corr = significantCorr(building, revenue.loc[:, '월평균  
2         매출(만 원)'])  
         2 len(revenue_corr)
```

```
Out[59]: 6
```

```
In [60]: 1 sorted(revenue_corr.items(), key = sortKey)[:10]
```

```
Out[60]: [('업무시설', (0.8550995467263773, 1.0260073250528493e-07)),  
          ('제2종근린생활시설', (0.6897763742468835, 0.00019206773593667066)),  
          ('숙박시설', (0.5580247225602755, 0.004602860085370192)),  
          ('위락시설', (0.5268724231744356, 0.00816277466469603)),  
          ('판매시설', (0.5166220188074153, 0.009744964377370442)),  
          ('노유자시설', (-0.4111293875965087, 0.0459505216335057))]
```