

Interaction

MP

2015-06-05

```
> setwd("D:/Dropbox/R/2015-NUS/Session-2/(b) Data modelling - Flexible/Gender Discrimination/3.Interaction")
```

```
> Dataset <-
+ read.table("D:/Dropbox/R/2015-NUS/Session-2/(b) Data modelling - Flexible/Gender Discrimination/3.Interaction/Table 4.1 Gender
+ header=TRUE, sep=",", na.strings="NA", dec=".", strip.white=TRUE)
```

```
> summary(Dataset)
```

```

Gender      Experience      Salary      Gender.Male
Female:140  Min.   : 2.00   Min.   : 53400   Min.   :0.0000
Male   : 68  1st Qu.: 7.00   1st Qu.: 66000   1st Qu.:0.0000
          Median :10.00  Median : 74000   Median :0.0000
          Mean   :12.05   Mean   : 79844   Mean   :0.3269
          3rd Qu.:16.00   3rd Qu.: 88000   3rd Qu.:1.0000
          Max.   :39.00   Max.   :194000   Max.   :1.0000

Gender.Exp.Int
Min.   : 0.000
1st Qu.: 0.000
Median : 0.000
Mean   : 3.885
3rd Qu.: 5.000
Max.   :39.000
```

```
> RegModel.1 <- lm(Salary~Experience+Gender.Exp.Int+Gender.Male, data=Dataset)
> summary(RegModel.1)
```

```
Call:
lm(formula = Salary ~ Experience + Gender.Exp.Int + Gender.Male,
    data = Dataset)

Residuals:
    Min     1Q  Median     3Q     Max
-71048  -9278  -1701   9166  47932

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  66333.6    2811.7   23.592 < 2e-16 ***
Experience    666.7      206.5    3.228  0.00145 **
Gender.Exp.Int 2086.2     287.3    7.261 7.95e-12 ***
Gender.Male   -8034.3    4110.6   -1.955  0.05201 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 15110 on 204 degrees of freedom
Multiple R-squared:  0.5561, Adjusted R-squared:  0.5495
F-statistic: 85.18 on 3 and 204 DF, p-value: < 2.2e-16
```