더미변수

Credit card의 효과는 절편인 2790+1044=3834

Electronic check의 효과는 절편인 2709+(-1196)=1513

Credit card의 회귀계수는 기준 범주인 bank transfer와의 종속변수평균값의 차이를 나타냄. 예를 들어서 credit card의 회귀계수는 credit card의 평균totalcharges에서 banktransfer의 평균 totalcharges를 뺀 값임. 이런 차이에 대한 통계적 유의성이 옆에 p값으로 나오는거.

Ex) 종속변수가 살아남은 해충개수고 spray A, B, C, D가 있을 때(A가 기준더미일 때) C의 P<0.05면 살충제C와 살충제A간 유의한 살충효과의 차이가 존재한다.

바로 돌린 경우:

**Results**

**Linear Regression**

| Model Fit Measures | | | | | |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **Model** | | **R** | | **R²** | |
| 1 |  | 0.515 |  | 0.266 |  |
|  | | | | | |

| Model Coefficients - TotalCharges | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| **Predictor** | | **Estimate** | | **SE** | | **t** | | **p** | |
| Intercept ᵃ |  | 2790 |  | 655 |  | 4.26 |  | < .001 |  |
| PaymentMethod: |  |  |  |  |  |  |  |  |  |
| Credit card (automatic) – Bank transfer (automatic) |  | 1044 |  | 858 |  | 1.22 |  | 0.230 |  |
| Electronic check – Bank transfer (automatic) |  | -1196 |  | 858 |  | -1.39 |  | 0.170 |  |
| Mailed check – Bank transfer (automatic) |  | -2073 |  | 905 |  | -2.29 |  | 0.027 |  |
| ᵃ Represents reference level | | | | | | | | | |
|  | | | | | | | | | |

더미 직접 만들어 돌린 경우(똑같음):

**Linear Regression**

| Model Fit Measures | | | | | |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **Model** | | **R** | | **R²** | |
| 1 |  | 0.515 |  | 0.266 |  |
|  | | | | | |

| Model Coefficients - TotalCharges | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| **Predictor** | | **Estimate** | | **SE** | | **t** | | **p** | |
| Intercept |  | 2790 |  | 655 |  | 4.26 |  | < .001 |  |
| Credit Card (Automatic) |  | 1044 |  | 858 |  | 1.22 |  | 0.230 |  |
| Electronic Check |  | -1196 |  | 858 |  | -1.39 |  | 0.170 |  |
| Mailed Check |  | -2073 |  | 905 |  | -2.29 |  | 0.027 |  |
|  | | | | | | | | | |

**References**

**[1]** The jamovi project (2021). *jamovi*. (Version 1.6) [Computer Software]. Retrieved from <https://www.jamovi.org>.

**[2]** R Core Team (2020). *R: A Language and environment for statistical computing*. (Version 4.0) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from MRAN snapshot 2020-08-24).