SUMMER SEASON – MODEL1

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-29.663 -7.862 -3.992 5.183 45.683

Coefficients: (1 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 22.2350 6.4484 3.448 0.00124 \*\*

x1 16.3211 4.9577 3.292 0.00194 \*\*

x2 1578.8489 1056.5255 1.494 0.14206

x3 39.3226 11.7521 3.346 0.00166 \*\*

x4 37.7414 10.8220 3.487 0.00110 \*\*

x5 NA NA NA NA

x6 -0.1630 0.1609 -1.013 0.31653

x7 0.3318 0.3873 0.857 0.39610

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 15.07 on 45 degrees of freedom

Multiple R-squared: 0.8768, Adjusted R-squared: 0.8603

F-statistic: 53.37 on 6 and 45 DF, p-value: < 2.2e-16

Shapiro-Wilk normality test

data: y

W = 0.88894, p-value = 0.0001593

WINTER SEASON – MODEL2

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Coefficients:

(Intercept) x1 x2 x3 x4 x5

31.95657 33.58471 NA 5.97102 25.84841 NA

x6 x7

0.18210 -0.03651

> summary(model2)

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-35.627 -14.458 -3.284 14.149 48.425

Coefficients: (2 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 31.95657 9.35822 3.415 0.00134 \*\*

x1 33.58471 10.25881 3.274 0.00202 \*\*

x2 NA NA NA NA

x3 5.97102 9.81244 0.609 0.54584

x4 25.84841 8.75628 2.952 0.00496 \*\*

x5 NA NA NA NA

x6 0.18210 0.33437 0.545 0.58866

x7 -0.03651 0.77493 -0.047 0.96262

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 22.52 on 46 degrees of freedom

Multiple R-squared: 0.6891, Adjusted R-squared: 0.6553

F-statistic: 20.39 on 5 and 46 DF, p-value: 1.133e-10

Shapiro-Wilk normality test

data: y

W = 0.92677, p-value = 0.003368

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Coefficients:

(Intercept) x1 x2 x3 x4 x5

31.8494 27.2094 NA -31.6247 8.2509 NA

x6 x7

-0.1127 0.2468

> summary(model3)

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-21.705 -5.919 -0.201 5.362 36.795

Coefficients: (2 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 31.8494 4.4979 7.081 1.27e-08 \*\*\*

x1 27.2094 13.2405 2.055 0.0463 \*

x2 NA NA NA NA

x3 -31.6247 27.3252 -1.157 0.2538

x4 8.2509 42.0782 0.196 0.8455

x5 NA NA NA NA

x6 -0.1127 0.2204 -0.511 0.6118

x7 0.2468 0.3588 0.688 0.4954

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 11.73 on 41 degrees of freedom

Multiple R-squared: 0.1172, Adjusted R-squared: 0.009493

F-statistic: 1.088 on 5 and 41 DF, p-value: 0.3814

> shapiro.test(y)

Shapiro-Wilk normality test

data: y

W = 0.93553, p-value = 0.01211

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Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Coefficients:

(Intercept) x1 x2 x3 x4 x5

13.46176 20.17008 NA 41.82778 13.34864 NA

x6 x7

*-0.04181 0.33744*

> shapiro.test(y)

Shapiro-Wilk normality test

data: y

W = 0.87383, p-value = 8.528e-05

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-25.7199 -4.9340 0.1082 4.5306 20.7456

Coefficients: (2 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 13.46176 4.30683 3.126 0.003175 \*\*

x1 20.17008 4.51394 4.468 5.65e-05 \*\*\*

x2 NA NA NA NA

x3 41.82778 9.92588 4.214 0.000126 \*\*\*

x4 13.34864 15.83011 0.843 0.403759

x5 NA NA NA NA

x6 -0.04181 0.11460 -0.365 0.717030

x7 0.33744 0.30519 1.106 0.275014

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 8.439 on 43 degrees of freedom

Multiple R-squared: 0.9555, Adjusted R-squared: 0.9503

F-statistic: 184.7 on 5 and 43 DF, p-value: < 2.2e-16

Model2

Mand

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Coefficients:

(Intercept) x1 x2 x3 x4 x5

11.4624 18.0020 -1154.6562 25.7194 1.8950 NA

x6 x7

1.0807 -0.3926

> shapiro.test(y)

Shapiro-Wilk normality test

data: y

W = 0.92941, p-value = 0.004257

> summary(model2)

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-33.114 -9.263 -2.400 9.360 36.064

Coefficients: (1 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 11.4624 4.6544 2.463 0.01768 \*

x1 18.0020 5.4269 3.317 0.00181 \*\*

x2 -1154.6562 886.6250 -1.302 0.19944

x3 25.7194 11.9648 2.150 0.03700 \*

x4 1.8950 8.5298 0.222 0.82520

x5 NA NA NA NA

x6 1.0807 0.3358 3.218 0.00240 \*\*

x7 -0.3926 0.6071 -0.647 0.52118

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 15.5 on 45 degrees of freedom

Multiple R-squared: 0.8495, Adjusted R-squared: 0.8294

F-statistic: 42.32 on 6 and 45 DF, p-value: < 2.2e-16

Bora

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Coefficients:

(Intercept) x1 x2 x3 x4 x5

11.4624 18.0020 -1154.6562 25.7194 1.8950 NA

x6 x7

1.0807 -0.3926

> shapiro.test(y)

Shapiro-Wilk normality test

data: y

W = 0.85621, p-value = 2.289e-05

> summary(model3)

Call:

lm(formula = y ~ (x1 + x2 + x3 + x4 + x5 + x6 + x7))

Residuals:

Min 1Q Median 3Q Max

-27.729 -9.779 -0.017 6.416 35.118

Coefficients: (2 not defined because of singularities)

Estimate Std. Error t value Pr(>|t|)

(Intercept) 41.1800 6.1098 6.740 2.75e-08 \*\*\*

x1 64.1832 12.8217 5.006 9.46e-06 \*\*\*

x2 NA NA NA NA

x3 38.3551 11.0223 3.480 0.00114 \*\*

x4 -9.5186 11.1614 -0.853 0.39838

x5 NA NA NA NA

x6 0.2155 0.2196 0.981 0.33197

x7 -0.8919 0.4079 -2.186 0.03414 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 14.34 on 44 degrees of freedom

Multiple R-squared: 0.914, Adjusted R-squared: 0.9042

F-statistic: 93.49 on 5 and 44 DF, p-value: < 2.2e-16