Regression analysis results\_Urban Features---Sentiment Ranking

**Jan- April 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 0.97 | 0.05 | 19.13 | ***p* <.05** | 0.87 | 1.07 | 0.00 |
| Enclosure | Sky | -1.18 | 0.05 | -23.17 | -0.57\*\*\* | -1.28 | -1.08 | -0.49 |
| Wall | -0.35 | 0.08 | -4.34 | -0.41\*\*\* | -0.51 | -0.19 | -0.09 |
| Building | -0.11 | 0.04 | -2.54 | 0.22\* | -0.20 | -0.03 | -0.05 |
| Fence | -0.07 | 0.08 | -0.88 | -0.04 | -0.24 | 0.09 | -0.02 |
| Tree | 0.19 | 0.05 | 3.77 | 0.26\*\*\* | 0.09 | 0.28 | 0.07 |
| Human Scale | Road | -0.17 | 0.05 | -3.37 | -0.48\*\*\* | -0.26 | -0.07 | -0.07 |
| Sidewalk | 0.37 | 0.04 | 9.37 | 0.39\*\*\* | 0.29 | 0.45 | 0.18 |
| Complexity | Streetlight | -0.47 | 0.05 | -9.05 | -0.12\*\*\* | -0.57 | -0.37 | -0.15 |
| Signboard | 0.76 | 0.37 | 2.07 | -0.03\* | 0.04 | 1.49 | 0.03 |
| Person | 0.27 | 0.04 | 6.43 | 0.32\*\*\* | 0.19 | 0.35 | 0.12 |
| Bicycle | 0.24 | 0.03 | 7.08 | 0.26\*\*\* | 0.17 | 0.30 | 0.13 |
| Motor Vehicle | -0.07 | 0.07 | -1.08 | -0.11 | -0.20 | 0.06 | -0.02 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 2120) *=* 191.1, *p<* .001 *and represented a large effect (R2adj* = 0.52*)*

*AIC =* 1344.05, *BIC =* 1423.16

a 95% confidence interval

**May- August 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 0.89 | 0.04 | 23.11 | ***p* <.05** | 0.81 | 0.96 | 0.00 |
| Enclosure | Sky | -1.45 | 0.04 | -34.59 | -0.66\*\*\* | -1.53 | -1.36 | -0.66 |
| Wall | 0.10 | 0.06 | 1.81 | -0.41 | -0.01 | 0.21 | 0.03 |
| Building | -0.18 | 0.04 | -5.06 | 0.33\*\*\* | -0.25 | -0.11 | -0.08 |
| Fence | -0.57 | 0.08 | -7.28 | -0.05\*\*\* | -0.73 | -0.42 | -0.11 |
| Tree | 0.22 | 0.04 | 6.09 | 0.32\*\*\* | 0.15 | 0.29 | 0.10 |
| Human Scale | Road | 0.03 | 0.04 | 0.88 | -0.53 | -0.04 | 0.11 | 0.02 |
| Sidewalk | 0.56 | 0.03 | 18.87 | 0.37\*\*\* | 0.50 | 0.62 | 0.29 |
| Complexity | Streetlight | -0.24 | 0.04 | -6.05 | -0.20\*\*\* | -0.31 | -0.16 | -0.08 |
| Signboard | 0.15 | 0.31 | 0.49 | 0.03 | -0.46 | 0.76 | 0.01 |
| Person | 0.21 | 0.03 | 6.35 | 0.27\*\*\* | 0.14 | 0.27 | 0.09 |
| Bicycle | 0.35 | 0.03 | 10.59 | 0.18\*\*\* | 0.28 | 0.41 | 0.17 |
| Motor Vehicle | 0.14 | 0.06 | 2.57 | -0.10\* | 0.03 | 0.25 | 0.04 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 2067) *=* 329.7, *p<* .001 *and represented a large effect (R2adj* = 0.60*)*

*AIC =* 1042.07, *BIC =* 1124.32

a 95% confidence interval

**Sep- Dec 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 0.92 | 0.05 | 20.29 | ***p* <.05** | 0.83 | 1.01 | 0.00 |
| Enclosure | Sky | -1.42 | 0.05 | -29.46 | -0.64\*\*\* | -1.51 | -1.32 | -0.60 |
| Wall | -0.07 | 0.07 | -1.07 | -0.39 | -0.20 | 0.06 | -0.02 |
| Building | -0.06 | 0.04 | -1.35 | 0.31 | -0.14 | 0.03 | -0.03 |
| Fence | -0.57 | 0.08 | -6.85 | -0.12\*\*\* | -0.73 | -0.40 | -0.12 |
| Tree | 0.20 | 0.05 | 4.05 | 0.31\*\*\* | 0.10 | 0.30 | 0.07 |
| Human Scale | Road | 0.03 | 0.04 | 0.75 | -0.49\* | -0.05 | 0.12 | 0.02 |
| Sidewalk | 0.44 | 0.04 | 12.04 | 0.39\*\*\* | 0.37 | 0.52 | 0.22 |
| Complexity | Streetlight | -0.42 | 0.05 | -9.04 | -0.12\*\*\* | -0.51 | -0.33 | -0.14 |
| Signboard | 0.94 | 0.35 | 2.71 | 0.02\*\* | 0.26 | 1.62 | 0.05 |
| Person | 0.21 | 0.04 | 5.16 | 0.32\*\*\* | 0.13 | 0.29 | 0.09 |
| Bicycle | 0.32 | 0.03 | 9.63 | 0.23\*\*\* | 0.26 | 0.39 | 0.17 |
| Motor Vehicle | -0.04 | 0.07 | -0.61 | -0.10 | -0.17 | 0.09 | -0.01 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 2648) *=* 329.7, *p<* .001 *and represented a large effect (R2adj* = 0.58*)*

*AIC =* 1066.33, *BIC =* 1145.09

a 95% confidence interval

**Jan- April 2020**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 0.93 | 0.06 | 15.62 | ***p* <.05** | 0.82 | 1.05 | 0.00 |
| Enclosure | Sky | -1.19 | 0.05 | -21.84 | -0.48\*\*\* | -1.29 | -1.08 | -0.51 |
| Wall | 0.05 | 0.09 | 0.62 | -0.28 | -0.11 | 0.22 | 0.01 |
| Building | -0.13 | 0.05 | -2.67 | -0.53\*\* | -0.23 | -0.03 | -0.06 |
| Fence | -0.62 | 0.10 | -5.94 | -0.02\*\*\* | -0.83 | -0.42 | -0.14 |
| Tree | 0.19 | 0.06 | 3.28 | -0.59\*\* | 0.08 | 0.30 | 0.07 |
| Human Scale | Road | -0.18 | 0.05 | -3.45 | -0.38\*\*\* | -0.28 | -0.08 | -0.08 |
| Sidewalk | 0.43 | 0.05 | 9.45 | -0.23\*\*\* | 0.34 | 0.52 | 0.19 |
| Complexity | Streetlight | -0.35 | 0.05 | -7.06 | -0.11 | -0.44 | -0.25 | -0.13 |
| Signboard | -0.25 | 0.56 | -0.45 | 0.28\*\*\* | -1.36 | 0.85 | -0.01 |
| Person | 0.31 | 0.04 | 7.20 | -0.41\*\*\* | 0.22 | 0.39 | 0.15 |
| Bicycle | 0.30 | 0.05 | 6.56 | -0.35 | 0.21 | 0.39 | 0.17 |
| Motor Vehicle | 0.07 | 0.08 | 0.80 | -0.54 | -0.10 | 0.23 | 0.02 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 1671) *=* 142.30, *p<* .001 *and represented a large effect (R2adj* = 0.51*)*

*AIC =* 1136.84, *BIC =* 1212.60

a 95% confidence interval

**May- August 2020**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 1.00 | 0.06 | 16.30 | ***p* <.05** | 0.88 | 1.12 | 0.00 |
| Enclosure | Sky | -1.34 | 0.06 | -23.93 | -0.42\*\*\* | -1.45 | -1.23 | -0.61 |
| Wall | 0.08 | 0.08 | 0.97 | -0.20 | -0.08 | 0.24 | 0.02 |
| Building | -0.23 | 0.05 | -4.71 | -0.67\*\*\* | -0.33 | -0.14 | -0.08 |
| Fence | -0.72 | 0.12 | -6.17 | -0.10\*\*\* | -0.95 | -0.49 | -0.14 |
| Tree | 0.20 | 0.05 | 3.96 | -0.58\*\*\* | 0.10 | 0.30 | 0.09 |
| Human Scale | Road | 0.04 | 0.05 | 0.71 | -0.38 | -0.07 | 0.14 | 0.02 |
| Sidewalk | 0.54 | 0.05 | 11.46 | -0.37\*\*\* | 0.45 | 0.64 | 0.24 |
| Complexity | Streetlight | -0.44 | 0.05 | -8.01 | -0.03\*\*\* | -0.55 | -0.33 | -0.15 |
| Signboard | 0.25 | 0.37 | 0.66 | 0.00 | -0.49 | 0.98 | 0.01 |
| Person | 0.14 | 0.04 | 3.61 | -0.39\*\*\* | 0.07 | 0.22 | 0.07 |
| Bicycle | 0.33 | 0.05 | 6.60 | -0.12\*\*\* | 0.23 | 0.43 | 0.15 |
| Motor Vehicle | -0.10 | 0.08 | -1.29 | -0.53 | -0.26 | 0.05 | -0.03 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 1687) *=* 137.09, *p<* .001 *and represented a large effect (R2adj* = 0.49*)*

*AIC =* 1167.78, *BIC =* 1243.67

a 95% confidence interval

**Sep- Dec 2020**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 1.18 | 0.06 | 21.11 | ***p* <.05** | 1.07 | 1.29 | 0.00 |
| Enclosure | Sky | -1.35 | 0.05 | -26.81 | -0.30 | -1.45 | -1.25 | -0.58 |
| Wall | -0.42 | 0.09 | -4.78 | -0.35 | -0.59 | -0.25 | -0.10 |
| Building | -0.15 | 0.05 | -3.07 | -0.58 | -0.24 | -0.05 | -0.07 |
| Fence | -0.17 | 0.09 | -1.84 | 0.10 | -0.35 | 0.01 | -0.04 |
| Tree | -0.07 | 0.05 | -1.30 | -0.48 | -0.17 | 0.04 | 0.02 |
| Human Scale | Road | -0.21 | 0.05 | -3.84 | -0.49 | -0.32 | -0.10 | 0.09 |
| Sidewalk | 0.37 | 0.05 | 7.44 | -0.30 | 0.27 | 0.46 | 0.15 |
| Complexity | Streetlight | -0.38 | 0.05 | -7.21 | 0.01 | -0.48 | -0.28 | -0.13 |
| Signboard | 1.39 | 0.35 | 3.92 | 0.07 | 0.69 | 2.08 | 0.08 |
| Person | 0.21 | 0.04 | 4.80 | -0.37 | 0.13 | 0.30 | 0.09 |
| Bicycle | 0.16 | 0.04 | 3.63 | -0.28 | 0.07 | 0.24 | 0.07 |
| Motor Vehicle | -0.15 | 0.07 | -2.26 | -0.52 | -0.28 | -0.02 | -0.04 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*12, 1975) *=* 154.71, *p<* .001 *and represented a large effect (R2adj* = 0.48*)*

*AIC =* 1434.6, *BIC =* 1512.72

a 95% confidence interval

**Jan- April 2019**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 1.02 | 0.05 | 21.16 | ***p* <.05** | 0.93 | 1.11 | 0.00 |
| Enclosure | Sky | -1.00 | 0.05 | -21.54 | -0.48\*\*\* | -1.09 | -0.91 | -0.44 |
| Wall | -0.22 | 0.07 | -2.99 | -0.16\*\* | -0.36 | -0.07 | -0.05 |
| Building | -0.03 | 0.04 | -0.81 | -0.53 | -0.12 | 0.05 | -0.02 |
| Fence | -0.45 | 0.09 | -4.91 | -0.04\*\*\* | -0.63 | -0.27 | -0.09 |
| Tree | 0.16 | 0.05 | 3.48 | -0.56\*\*\* | 0.07 | 0.25 | 0.06 |
| Human Scale | Road | -0.22 | 0.05 | -4.78 | -0.44\*\*\* | -0.30 | -0.13 | -0.09 |
| Sidewalk | 0.38 | 0.04 | 10.64 | -0.23\*\*\* | 0.31 | 0.45 | 0.17 |
| Complexity | Streetlight | -0.45 | 0.04 | -11.87 | -0.06\*\*\* | -0.52 | -0.38 | -0.19 |
| Signboard | -0.98 | 0.51 | -1.90 | 0.24 | -1.98 | 0.03 | -0.03 |
| Person | 0.24 | 0.03 | 6.94 | -0.37\*\*\* | 0.17 | 0.31 | 0.12 |
| Bicycle | 0.30 | 0.04 | 8.08 | -0.33\*\*\* | 0.22 | 0.37 | 0.17 |
| Motor Vehicle | -0.32 | 0.06 | -5.01 | -0.49\*\*\* | -0.44 | -0.19 | -0.08 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*51, 2533) *=* 43.82, *p<* .001 *and represented a large effect (R2adj* = 0.52*)*

*AIC =* 1699.31, *BIC =* 1781.21

a 95% confidence interval

**May- August 2019**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 0.93 | 0.04 | 20.86 | ***p* <.05** | 0.84 | 1.02 | 0.00 |
| Enclosure | Sky | -1.08 | 0.04 | -25.58 | -0.48 | -1.16 | -1.00 | -0.51 |
| Wall | 0.06 | 0.06 | 0.97 | -0.17 | -0.06 | 0.18 | 0.02 |
| Building | -0.01 | 0.04 | -0.35 | -0.59 | -0.10 | 0.07 | -0.01 |
| Fence | -0.66 | 0.10 | -6.38 | -0.12 | -0.86 | -0.46 | -0.10 |
| Tree | 0.08 | 0.04 | 1.83 | -0.53 | -0.01 | 0.16 | 0.03 |
| Human Scale | Road | -0.14 | 0.04 | -3.33 | -0.35 | -0.22 | -0.06 | -0.06 |
| Sidewalk | 0.42 | 0.04 | 11.66 | -0.30 | 0.35 | 0.49 | 0.17 |
| Complexity | Streetlight | -0.32 | 0.04 | -8.14 | -0.03 | -0.39 | -0.24 | -0.13 |
| Signboard | -1.56 | 0.43 | -3.61 | 0.07 | -2.41 | -0.71 | -0.06 |
| Person | 0.36 | 0.03 | 12.41 | -0.36 | 0.30 | 0.42 | 0.18 |
| Bicycle | 0.35 | 0.04 | 9.57 | -0.07 | 0.28 | 0.42 | 0.16 |
| Motor Vehicle | -0.17 | 0.06 | -2.68 | -0.51 | -0.29 | -0.04 | -0.04 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*53, 2467) *=* 58.13, *p<* .001 *and represented a large effect (R2adj* = 0.55*)*

*AIC =* 1440.39, *BIC =* 1522.48

a 95% confidence interval

**Sep- Dec 2019**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Metrics** | **Urban Features** | ***b*** | ***SEb*** | ***t*** | **Cor. & Sig.** | **Lower Bound** a | **Upper Bound** a | ***β*** |
| Results | Intercept | 1.01 | 0.05 | 21.53 | ***p* <.05** | 0.92 | 1.10 | 0.00 |
| Enclosure | Sky | -1.06 | 0.04 | -24.94 | -0.40 | -1.14 | -0.97 | -0.48 |
| Wall | -0.04 | 0.06 | -0.65 | -0.32 | -0.17 | 0.09 | -0.01 |
| Building | -0.19 | 0.04 | -4.61 | -0.52 | -0.26 | -0.11 | -0.08 |
| Fence | -0.33 | 0.08 | -3.90 | -0.08 | -0.49 | -0.16 | -0.08 |
| Tree | 0.17 | 0.05 | 3.67 | -0.58 | 0.08 | 0.26 | 0.07 |
| Human Scale | Road | -0.24 | 0.04 | -6.05 | -0.37 | -0.32 | -0.17 | -0.11 |
| Sidewalk | 0.45 | 0.04 | 11.96 | -0.25 | 0.38 | 0.52 | 0.20 |
| Complexity | Streetlight | -0.35 | 0.04 | -9.16 | -0.05 | -0.43 | -0.28 | -0.15 |
| Signboard | -0.63 | 0.51 | -1.24 | 0.22 | -1.63 | 0.37 | 0.02 |
| Person | 0.33 | 0.03 | 9.49 | -0.43 | 0.26 | 0.39 | 0.16 |
| Bicycle | 0.26 | 0.03 | 7.42 | -0.32 | 0.19 | 0.33 | 0.15 |
| Motor Vehicle | -0.17 | 0.07 | -2.30 | -0.56 | -0.31 | -0.02 | -0.04 |

\*\*\**p* < .001, \*\**p* <.01, \**p* <.05

*F(*55, 2257) *=* 35.70, *p<* .001 *and represented a large effect (R2adj* = 0.52*)*

*AIC =* 1399.99, *BIC =* 1480.34

a 95% confidence interval

**Facilities:**

Amenities: Bar, Marketplace, fast food, café, restaurant, town hall, art center

Leisure: Stadium, Swimming pool, sports center, playground

Recreation: park

Business Establishments: Commercial

Correlation plots

Graphical user interface, chart

Description automatically generated

Percentage of the features for positive and negative rankings (different times)

A picture containing text, screenshot, electronics, display

Description automatically generated