# Example of gulf real estate properties critical thinking

**Business** 



# **Gulf Real Estate Properties**

Introduction:

The following is a discussion of the various characteristics of Gulf View condominiums (GVC) and non- Gulf View condominiums (Non-GVC). Various descriptive statistics including the mean and standard deviation are explored. An analysis of differences using two-sample t test is undertaken to determine differences in selling prices and days to sell. The confidence intervals are determined and the sample size required to achieve desired margin of errors is determined. GVC refers to Gulf View condominiums while non-GVC refers to non-Gulf View condominiums.

### **Gulf Real Estate Properties characteristics:**

Descriptive statistics for GVC indicate that the mean list price is 474, the mean sale price is 452. 2 and the average day to sell is 106. The list price standard deviation is 197. 3, the sale price standard deviation is 193. 4 and the day to sell standard deviation is 52. 2. The mode is 975, 305 and 85 for the list price, sale price and days to sell respectively.

The minimum list price is 169, the minimum sale price is 165 and the minimum day to sell is 28. The maximum list price is 975, the maximum sale price is 975 and the maximum day to sell is 282. These statistics are summarized below:

list price

sale price

days to sell

# **Standard Deviation**

Standard Deviation

Standard Deviation

Descriptive statistics for No-GVC indicate that the mean list price is 208. 4, the mean sale price is 203. 2 and the average day to sell is 135. The list price standard deviation is 53. 6, the sale price standard deviation is 43. 9 and the day to sell standard deviation is 76. 3. The mode is 279 and 179 for the list price and sale price respectively.

The minimum list price is 119. 8, the minimum sale price is 135. 5 and the minimum day to sell is 48. The maximum list price is 322, the maximum sale price is 292 and the maximum day to sell is 338. These statistics are summarized below:

list price

sale price

days to sell

### **Standard Deviation**

Standard Deviation

Standard Deviation

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Comparing GVC and No-GVC

The above descriptive results indicate that GVC have higher list price and higher sale price than No-GVC. The days to sell mean for GVC is also lower meaning that these condominiums are more profitable than No-GVC. The best statistical test to undertake to determine whether the selling prices are higher for GVC would be a two-sample T test; the same test would be used to determine whether there is a difference in the number of days to sell for the condominiums. (Anderson, 2010)

GVC have a selling price mean of 452. 175 and the No-GVC have a selling price of 203. 189. T test results indicate that the p value is 0. 000, this value means that the differences in price is statistically significant, the result of this test are summarized below:

t-Test: Two-Sample Assuming Unequal Variances

sale price Gulf
sale price no Gulf

t Stat

 $P(T \le t)$  one-tail3. 43229E-10t Critical one-tail $P(T \le t)$  two-tail6. 86459E-10t Critical two-tailGVC days to sell is 106 and the No-GVC days to sell is 135. T test results indicate that the p value is 0. 07; this value means that the difference in days to sell is not statistically significant at the 95% level of test. The results are summarized below: t-Test: Two-Sample Assuming Unequal Variances days to sell Gulfdays to sell no Gulft Stat-1. 465492164 $P(T \le t)$  one-tailt Critical one-tail $P(T \le t)$  two-tailt Critical two-

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tailConfidence intervals were estimated and results indicates that for GVC there is a 95% confidence that the average sell price is between 390. 318 and 514. 031, this means that there is a 95% probability that the price will be between 390. 318 and 514. 031. For the days to sell, the result indicate that there is a 95% confidence that the days to sell for GVC will be between 89. 3 and 122. 699 days. Results also indicate that for Non- GVC there is a 95% confidence that the average sell price is between 181. 36 and 225. 015. For the days to sell, the result indicate that there is a 95% confidence that the days to sell for Non-GVC will be between 97. 05 and 172. 94 days. (Anderson, 2010)In order to estimate the mean selling price of GVC with a 40, 000 margin of error, then the required sample size will be 47. 8, which is approximately 48. To determine the required sample size for No-GVC with a 15, 000 margin of error, then the required sample size is 1043. 84. This means that in order to achieve a smaller margin of error a larger sample is required whereas when a larger margin of error is considered then the sample size is smaller. (Anderson, 2010)

### **Conclusion:**

It is evident that GVC have a higher selling price than the Non-GVC. The difference in selling price is statistically significant at the 95% level of confidence. The difference in the number of days to sell is not significant at the 95% confidence level. The required sample size for the selling price of GVC with a 40, 000 margin of error is 47. 8. To determine the required sample size for No-GVC with a 15, 000 margin of error, then the required sample size is 1043. 84.

# **Reference:**

Anderson, D. and et al. (2010). Essentials of Statistics for Business and Economics. New York: McGraw Hill press.