

What Business to Start in San Antonio, TX

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Abstract:

This article analyzes what are the possible good businesses to start in one of the fastest growing cities in the US, San Antonio, TX. With clustering technology and comparing with Phoenix, AZ, Coffee shop can be good business to start in San Antonio, TX since Coffee shops are much more popular in Phoenix neighborhoods which are similar to San Antonio Neighborhoods.

Introduction

San Antonio, TX (SA) is the fastest growing city in the US from year 2016 to 2017. According to Forbes, there are More than 24,200 People moved to SA by the year¹. Given the large in flow of population, there will be business opportunities in the city. In this project, we analyze which kind of business would appreciate to start in the lovely city.

We start with a comparable but much more matured city, Phoenix, AZ (PHX). We want to learn what type of businesses are popular in PHX neighborhoods but not so in SA neighborhoods. We first group the neighborhoods in both PHX and SA according to their existing business and attractions with clustering technology. For each group, we then check into what the most popular businesses of PHX neighborhoods which are not so of SA neighborhoods of the same group. This give us some idea that those type of business can have good potential in SA since they are proven to be successful in PHX, however, not yet getting enough footage in SA.

We therefore can recommend those type of businesses to the entrepreneurs who are enthusiastic of initialize their business in SA.

Data

The data used for this project include the zip codes of both SA and PHX from zipcode.com and the coordinates of all the US zip codes. The venue data for both SA and PHX are also acquired from Foursquares API.

We first match the SA and PHX zip codes with the coordinates accordingly. Then, we acquire all the venue data from Foursquares with the API. We only keep the neighborhood with more than 10 venues for analysis.

Empirical design and result

With all the venues from all the neighborhood, we run an unsupervised K-mean clustering to group the neighborhoods from both cities to 10 groups.

For each of the group, we analyze sort the neighborhoods by city and top 3 venues. We then investigate the popular venues in PHX of the group. If a venue is popular in PHX of a given group while not so in SA neighborhood of the same group, we will suggest the venue to whom wants to start a new business in SA.

A full cluster output can be found in the appendix.

¹ <https://www.forbes.com/sites/candaceevans/2018/07/13/largest-population-boom-in-the-country-is-in-san-antonio-texas-because-business/#1a6a1d652b4b>

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We use Cluster 3 (or Group 3) to illustrate how the analysis is being done.

As in Table 1, for Cluster 3, there are 6 appearance of **Coffee Shop** in PHX neighborhood, but none for SA neighborhood. Given the consumption behavior of US residence and the similarity of SA and PHX, it is not difficult to identify **Coffee Shop** can be the golden opportunity for the people willing to open business in SA.

**Table 1: Analysis for what kind of business would be good to
start in the SA neighborhood of Cluster 3**

Zip	City	Cluster	1st Most Common	2nd Most Common	3rd Most Common
85003	PHX	3	American Restaurant	Music Venue	Coffee Shop
85019	PHX	3	Automotive Shop	Rental Service	Mexican Restaurant
85027	PHX	3	Bagel Shop	BBQ Joint	Yoga Studio
85029	PHX	3	BBQ Joint	Hookah Bar	Bed & Breakfast
85008	PHX	3	Burger Joint	Pharmacy	Fast Food Restaurant
85016	PHX	3	Coffee Shop	American Restaurant	Cosmetics Shop
85018	PHX	3	Coffee Shop	Fast Food Restaurant	Gluten-free Restaurant
85004	PHX	3	Coffee Shop	Pizza Place	American Restaurant
85013	PHX	3	Cosmetics Shop	Park	Coffee Shop
85031	PHX	3	Fast Food Restaurant	Chinese Restaurant	Pharmacy
85007	PHX	3	Food Truck	Athletics & Sports	Chinese Restaurant
85028	PHX	3	Intersection	Flea Market	Gas Station
85009	PHX	3	Mexican Restaurant	Auto Workshop	Yoga Studio
85006	PHX	3	Mexican Restaurant	Taco Place	Café
85021	PHX	3	Park	American Restaurant	Playground
85023	PHX	3	Racetrack	Warehouse Store	Sports Club
85015	PHX	3	Record Shop	Fried Chicken Joint	Discount Store
85017	PHX	3	Rental Car Location	Convenience Store	Fast Food Restaurant
85022	PHX	3	Trail	Yoga Studio	Flea Market
78216	SA	3	Airport Lounge	Airport Terminal	Rental Car Location
78242	SA	3	American Restaurant	Discount Store	Auto Garage

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78251	SA	3	American Restaurant	Resort	Pool
78204	SA	3	Bakery	Art Gallery	Lounge
78230	SA	3	Bakery	Pizza Place	Rock Club
78210	SA	3	Buffet	Yoga Studio	Flower Shop
78215	SA	3	Burger Joint	Yoga Studio	American Restaurant
78259	SA	3	Construction & Landscaping	Yoga Studio	Flea Market
78223	SA	3	Convenience Store	Discount Store	Mexican Restaurant
78220	SA	3	Convenience Store	Flea Market	Gas Station
78243	SA	3	Convenience Store	Sandwich Place	Gym / Fitness Center
78202	SA	3	Discount Store	Mexican Restaurant	BBQ Joint
78208	SA	3	Fast Food Restaurant	Hotel	BBQ Joint
78207	SA	3	Fast Food Restaurant	Mexican Restaurant	Fried Chicken Joint
78247	SA	3	Gas Station	Video Store	Business Center
78237	SA	3	General Entertainment	Flea Market	Gas Station
78231	SA	3	Grocery Store	Donut Shop	Yoga Studio
78234	SA	3	Gym	Fast Food Restaurant	Pool
78249	SA	3	Gym	Trail	Yoga Studio
78248	SA	3	Gym / Fitness Center	Pharmacy	Building
78236	SA	3	Hotel	BBQ Joint	Pizza Place
78205	SA	3	Hotel	Steakhouse	Bar
78257	SA	3	Insurance Office	Yoga Studio	Flea Market
78227	SA	3	Mexican Restaurant	Fast Food Restaurant	Convenience Store
78213	SA	3	Mexican Restaurant	Fast Food Restaurant	Ice Cream Shop
78201	SA	3	Mexican Restaurant	Fried Chicken Joint	Chinese Restaurant
78212	SA	3	Mexican Restaurant	Shipping Store	Furniture / Home Store
78228	SA	3	Music Store	Wings Joint	Construction & Landscaping
78250	SA	3	Pizza Place	Bar	Liquor Store
78209	SA	3	Pizza Place	Ice Cream Shop	Art Museum
78244	SA	3	Pool	Yoga Studio	Flea Market
78260	SA	3	Pool	Yoga Studio	Flea Market
78217	SA	3	Seafood Restaurant	Food Truck	Karaoke Bar

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78203	SA	3	Southern / Soul Food Restaurant	Fried Chicken Joint	Mexican Restaurant
78245	SA	3	Sporting Goods Shop	Yoga Studio	Flea Market
78224	SA	3	Stables	Flea Market	Gas Station
78226	SA	3	Track	Airport Terminal	Hotel
78225	SA	3	Video Store	Mexican Restaurant	Pharmacy

Conclusion

This project aims to answer the question “*What kind of business should I do in SA?*” for potential entrepreneurs who are interested in open business in San Antonio, TX. Based on a cluster analysis and the rich location data, our analysis shows that Coffee shop can be the most possible business to success in SA.

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Appendix

Table A: The full cluster of all neighborhood of SA and PHX

Zip	City	Cluster	1st Most Common	2nd Most Common	3rd Most Common
85032	Phoenix	0	Park	Intersection	Playground
78240	San Antonio	0	Grocery Store	Liquor Store	Pizza Place
78229	San Antonio	1	Hotel	Sandwich Place	Yoga Studio
78239	San Antonio	1	IT Services	Tree	Yoga Studio
85033	Phoenix	2	Bus Station	Yoga Studio	Flower Shop
85020	Phoenix	2	Mexican Restaurant	Bowling Alley	Park
85003	Phoenix	3	American Restaurant	Music	Coffee Shop
85019	Phoenix	3	Automotive Shop	Rental Service	Mexican Restaurant
85027	Phoenix	3	Bagel Shop	BBQ Joint	Yoga Studio
85029	Phoenix	3	BBQ Joint	Hookah Bar	Bed & Breakfast
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85022	Phoenix	3	Trail	Yoga Studio	Flea Market
78216	San Antonio	3	Airport Lounge	Airport Terminal	Rental Car Location
78242	San Antonio	3	American Restaurant	Discount Store	Auto Garage
78251	San Antonio	3	American Restaurant	Resort	Pool
78204	San Antonio	3	Bakery	Art Gallery	Lounge

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78226	San Antonio	3	Track	Airport Terminal	Hotel
78225	San Antonio	3	Video Store	Mexican Restaurant	Pharmacy
78238	San Antonio	4	Clothing Store	Shoe Store	Cosmetics Shop
78218	San Antonio	4	Hotel	Casino	Electronics Store
85012	Phoenix	5	Boutique	Pizza Place	Furniture / Home Store
78235	San Antonio	5	Convenience Store	Playground	Yoga Studio
78232	San Antonio	5	Toy / Game Store	Dive Bar	Mexican Restaurant
85014	Phoenix	7	Pizza Place	Moving Target	Arts & Crafts Store
78233	San Antonio	8	Warehouse Store	Hotel	Other Repair Shop
78258	San Antonio	9	Video Store	Park	Yoga Studio