

Competition or Complementation.

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1. Introduction.

1.1 Background

The most common form of entrepreneurship is a small business which are very important for the economies of several developed and developing countries. For example, in the United States, small businesses represent the 99.9% of all firms, and nearly a half of private sector employees. Also they contributed to the 65.9% of job creation between 2000 and 2017 [1]. Small businesses are a great opportunity to achieve financial success for a lot of people, which include women and minorities. In fact, in the last two decades there was an increase of businesses owned by women and minorities [2]. There are several topics which we must consider before starting a new business, and a key is to develop a strategic plan.

Some ideas come to us about a new business that belongs to either, goods sector or service sector. Perhaps our idea is not so revolutionary for an industry and we want to offer a simple good or service for the customers. Maybe our idea is something that we can find hundreds of different businesses which offer the same good or service that we want to sell. Although the majority of these businesses are small businesses, some of them are the biggest and the most popular of a certain zone, and they can sink the success of a new business nearby.

1.2 Problem

In the face of the challenge of starting a new small business there are several strong competitors that can truly obstruct the success of this new business. So, the problem here is to decide to compete with them or look for a complementation. In other words, this new business can try to struggle with a bigger

business with several decades of experience, or can take advantage of the popularity of some businesses.

This work aims to obtain the most common options for new businesses based in patterns of the most popular venues in several cities.

1.3 Interest

The results of this work could be very helpful for anyone who is looking to start a new business and if he or she is not totally sure what kind of business may be the best option in a certain zone.

References.

- [1] U.S. S.B.A (2018) “Frequently Asked Questions about Small Business”, August 2018, U.S. S.B.A. Office of Advocacy. Available at <https://www.sba.gov/sites/default/files/advocacy/Frequently-Asked-Questions-Small-Business-2018.pdf>
- [2] Skripak, S. J. (2016). “Fundamentals of Business”, Virginia Tech. Available at <https://vtechworks.lib.vt.edu/handle/10919/70961>

2. Data acquisition and cleaning

2.1 Data sources

Two cities will be compared: Toronto, Canada and New York, USA in order to obtain data about venues per boroughs and neighborhoods. All of this data will be obtained from FourSquare database. Information about name of venues, categories and localization will be categorized, compared and recorded in graphs and tables.

2.2 Data cleaning

The obtained data will be compiled in different dataframes which will contain the name, category and localization of the venues from all boroughs and neighborhood of Toronto and New York. If there are missing data of some venue, it will be dropped.

2.3 Feature selection

For each neighborhood of every borough will be recolected the most popular venues, ranking from “top 5” to “top 20” and data of their name, category and localization will be grouped in dataframes. The categories of the most popular venues will be compared to each neighborhood in order to know if there is a common category or the popular venues are distributed in several categories.

For every “top”, will be consulted near venues, and also their category will be recorded in dataframes. Their categories will be displayed in histograms for visualizing the most common venue categories near to a very popular venue. Given the most common categories of the near venues, will be analized if some of these venues also belong to some “top”, in other words, if they are also popular compared to the most popular venue.

Then, will be analized what case happens more frequently: given a popular venue and their nearest venues, their categories are the same or they diverge? This analysis will indicate the cases in which there is competition and cases of complementation.