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| PROJECT REPORT  LAUNCHING A SHOPPER SERVICE IN LIMBURG | | |
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| INTRODUCTIONBackground During 2020 the coronavirus pandemic has greatly impacted the way in which consumers could transact and interact with all types of businesses, from retail and food service industries to administration services. We find that high risk citizens would find a reasonably priced personal "shopper" service, that would allow them to maintain all the necessary day to day tasks with a minimal additional service cost. In limiting their contact with a single point of contact that would take extra precautionary measures to minimize risk of transmission and increase the hygiene factor of articles handed over.  Further to this a large number of people have lost their means of income, with high impact to gig economy workers. This means that there is high availability of responsible, experienced service delivery staff with credible work records available to serve as personal assistants to this target group Problem The problem is to determine the best areas to launch this type of service. In the modern economy, e-commerce and door delivery services are already commonplace and widely used by people on a daily basis. As such the impact of COVID 19 reducing the ability to shop in person or shop during restricted hours has had a lesser impact on the population in general.  This means that a personal shopper service will face considerable challenges to launch and sustain its activities at a premium cost, with little to no uptake and limited repeat business. Ideally the target market for this service are the elderly and infirm that are unable to comfortably manage the restrictive conditions and are also not comfortable with high tech solutions to mitigate these restrictions. | |
| Interest Entrepreneurs would be very interested in the insights of where to launch this possibly lucrative service, at a time when product placement could be the diffrentiator between success and failure. Delivery services could also use this data to approach a niche market to grow their service offering | |  |
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| |  |  | | --- | --- | |  |  | | DATA ACQUISITION AND CLEANINGData Sources The geographic focus for this project was the Limburg province of Belgium. Initially I sourced the postal code data for all suburbs in Limburg province from <http://www.geonames.org/>. To further identify the suburbs with the largest target market, I extracted age demographic data for the Limburg Province from <https://statbel.fgov.be/en>  Data for venues in the selected suburbs was sourced via API from [www.foursquare.com](http://www.foursquare.com) Data cleaning The postal code data resulted in 2781 records, which when filtered to specifically Limburg province still provided 220 records. Since the volume of records exceeded the call limit of the Foursquare API profile, I then combined the demographic data for citizens over the age of 84 in each suburb.  In order to establish a threshold for the deselection of suburbs, I set a minimum required client base of 100 users. Using the conversion rule of thumb of between 2% - 5% for a focused marketing campaign, I then determined that I should narrow my focus on those suburbs with at least 5000 residents over 64 years of age. | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |  |

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| MODELING and EVALUATIONDATA ANALYSIS The various datasets were sourced and merged into a uniform data set using the suburb name as the common data element. Venue data was analysed to find most common venue types per suburb and availability of specific venue types per suburb EVALUATION The data was organized and evaluated using two criteria: -   1. Which suburbs had the largest number of citizens in the target market range 2. Which suburbs had the largest variety of venues   The data was ranked individually using this criteria and then weighted with a slight deference to variety of venues to ensure that the service could cater to a larger need for the target market. Based on initial marketing survey of the selected target areas this weighting can be adjusted based on feedback. | |
| CONCLUSION Based on the analysis done, the conclusion I have reached is that the top 5 suburbs to launch a shopper service targeting the current pandemic’s high risk residents in the Limburg province in Belgium are :   1. Hasselt 2. Sint-Truiden 3. Tongeren 4. Lommel 5. Bilzen | |  |
| Based on this, initial survey of the target residents can be done and adjustments can be made using the data feedback to fine tune the model. | |  |
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