

# 必勝族





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On 19 August 2019, 3 girls with 1 shared love for food came together and that was the beginning of 必勝族 (bi sheng zu).

Under the guidance of Professor Kam Tin Seong, we were able to quickly learn the ropes of the QGIS application and apply it for our project.

Through this project, we hope to encourage businesses to adopt the QGIS method so as to make a more informed business decision in the future based on the analysis from the QGIS application.

# BUSINESS TRADE AREA DELINEATION AND PROFILING

## ISSUE AND PROBLEM



A Food and Nutrition Board (FNB) International Food Chain is interested in improving their current methods of analysis.

Using the various functions available on QGIS, we are able to help the FNB business to conduct analysis on the correlation between various factors, such as the Point-Of-Interests (POIs) and Population Density, and the Sales Revenue of the 13 trade areas where this FNB business operates in.

By doing so, we aim to optimise the performance of each store located in these trade areas and we hope to highlight the benefits of adopting the QGIS method so that the FNB business can make a more informed business decisions in the future based on the insights they have gathered from QGIS.





## MOTIVATION



As the business expands, it gets increasingly difficult to accurately keep track of the various factors that affects the business performance. Various factors such as the POIs can affect the human traffic in each of the trade area and should be considered with utmost importance.

The current method of using Microsoft PowerPoint has been adopted by the FNB International Food Chain. However, as this is a less effective approach as compared to using the QGIS application, we propose the use of QGIS for the FNB business since QGIS is able to provide a much more comprehensive and precise analysis for the outlets in the trade areas.

By utilizing QGIS to digitize the different trade areas , we believe that the analysis process would be made less tedious and less time-consuming as the data is being integrated into a single platform and allows for an easier integration for future usage.

This provides the FNB business with a more realistic and better representation of their stores' environment through the analysis of the data provided and generated by QGIS. Hence, allowing the business to make concrete plans on maximising profits for its stores.



## PROJECT BACKGROUND



In this project, we will be focusing on the stores that are located in the 13 trade areas at the northern part of Taiwan, in which this FNB business operates in.

By looking into the significance of the POIs in the respective trade areas, it will help the FNB business to better determine the relationship between the POIs with the Sales Revenue of their stores. For example, POIs such as School (8211), Business Facility (5000), Convenience Store (9535) and Grocery Store (5400) will affect the human traffic in a particular area.

In comparison to the traditional way of mapping the trade areas onto Microsoft PowerPoint, we will also be demonstrating how utilizing QGIS to digitize the trade areas will be able to provide us with a much more comprehensive and accurate version of the trade areas on the map.

# POI LEGEND



ATM - 3578



BANK - 6000



BAR/PUB - 9532



BOOKSTORE - 9995



BOWLING CENTRE - 7933



BUS STATION - 4170



BUSINESS FACILITY - 5000



CINEMA - 7832



CLOTHING STORE - 9537



COFFEE SHOP - 9996



COMMUTER RAIL  
STATION - 4100



CONSUMER ELECTRONICS  
STORE - 9987



CONVENIENCE STORE - 9535



DEPARTMENT STORE - 9545



GOVERNMENT OFFICE - 9525



GROCERY STORE - 5400



HIGHER EDUCATION - 8200



HOSPITAL - 8060



HOTEL - 7011



INDUSTRIAL ZONE - 9991



MEDICAL SERVICE - 9583



NIGHTLIFE - 5813



PERFORMING ARTS - 7929



PHARMACY - 9565



RESIDENTIAL AREA/  
BUILDING - 9590



RESTAURANT - 5800



SCHOOL - 8211



SHOPPING - 6512



SPECIALITY STORE - 9567



SPORTS CENTRE - 7997



SPORTS COMPLEX - 7940



TRAIN STATION - 4013







## “What Can The FNB International Food Chain Do In The Future?”

- **Areas Of Improvement With Data Analysis**

1. Customer Profiling
2. Operations Improvement
3. Repeat Customer Trends



- **Decrease Labour Cost** by garnering past insights to schedule the number of workers depending on the frequency of transactions in that particular shift.
- **Make better Menu Decisions** by recording the number of times an item is ordered to determine the tastes and preferences of their customers.
- Tap on **Potential Customer Segments**

## “What We Can Do For The FNB Business In The Future?”

- **With Predictive Analytics**

1. Improve Order Accuracy
2. Forecast Trends



- **Conduct Such Delineation Of Trade Area And Analysis** for the FNB food chain business in other countries since the business is an international food chain that can be found in many countries worldwide
- **Conduct Further Analysis Of Other Factors**, other than the Number of POIs and the Population Density, which may affect the overall Sales Revenue of the business. Some suggestions include the **Consumption Level and the Income Level Of The Population in the relevant districts of Taiwan**



**SPECIAL THANKS TO PROFESSOR KAM TIN SEONG  
FOR HIS INVALUABLE GUIDANCES**

**SCAN HERE FOR MORE INFORMATION  
ON OUR PROJECT**

<https://tinyurl.com/G2Group4Poster>



# GET IN TOUCH



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