



Geographical Information Systems (GIS)

“Your Gateway to Spatially Intelligent Solutions”

Uses of GIS in the Banking Sectors

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Scenario 1: Feasibility Study Analytics

Problem: The CEO of a bank has received a grant to open up a new bank location in part of the city. He is having difficulty deciding which location would be suitable.

Solution: By utilizing GIS Technology and providing the current bank locations, analysts can map out points of interest such as locations of (Banks, Schools, Retail Locations, Restaurants and Hotel locations).

Benefit: This will help the CEO visualize what assets are located in the area of interest which could bring in potential business and increase revenue and profitability.

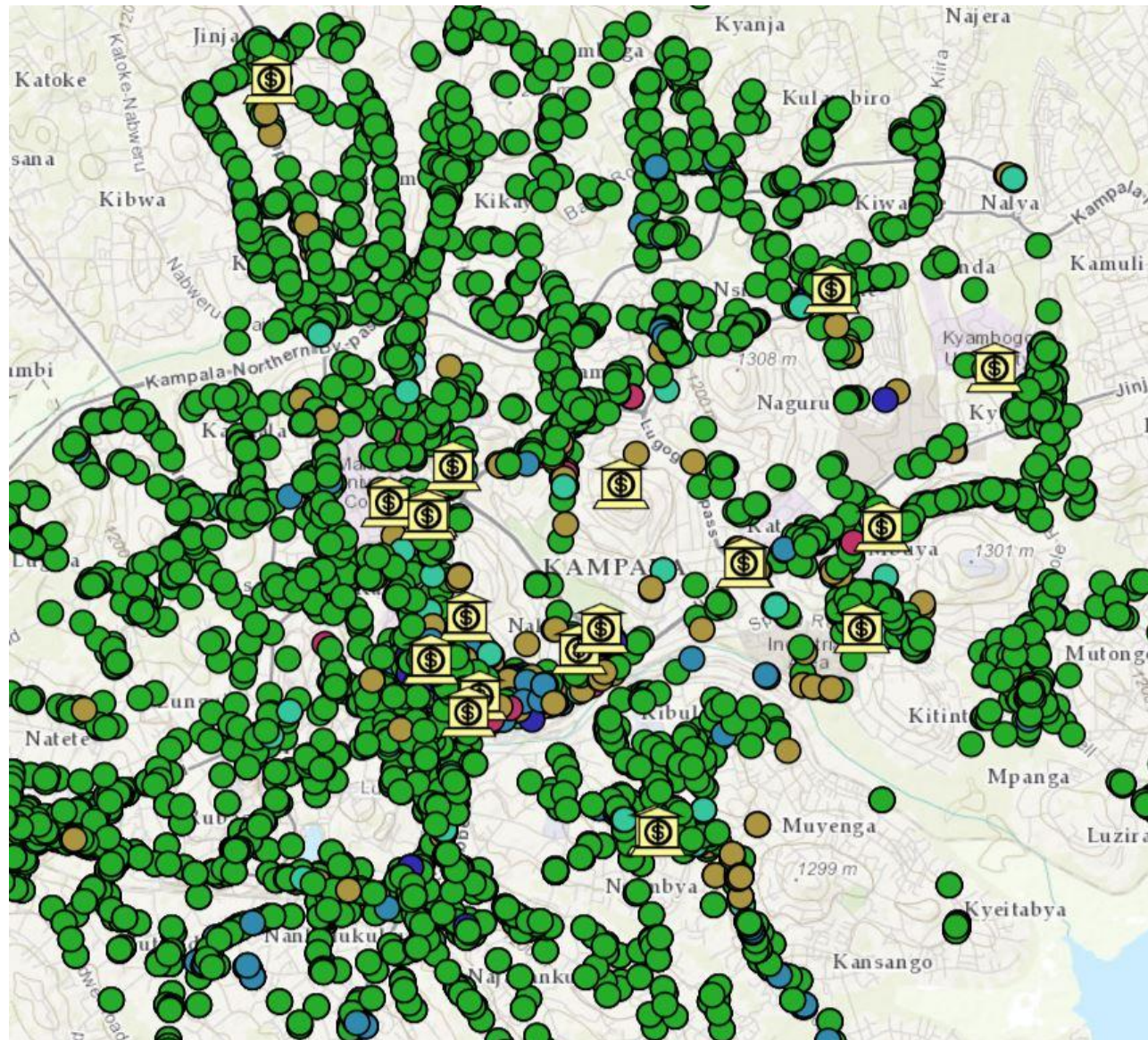
Financial Services in correlation to Stanbic Bank Locations

Stanbic Bank Kampala



Kampala Financial Services POI

- Forex Bureau
- Money Transfer
- Atm
- Bank
- Microfinance
- Mobile Money



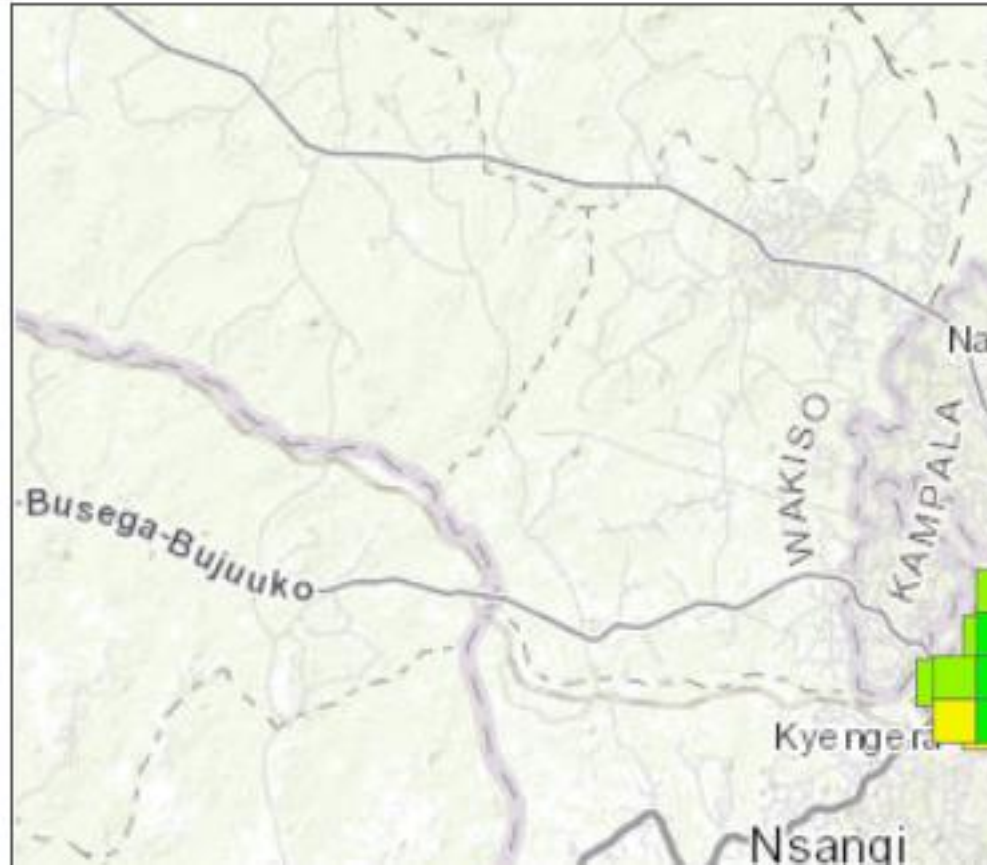
Scenario 2: Demographic & Socio-Economic data Analysis

Problem: At a recent general meeting, few managers expressed their concern over complaints of high costs of services their branches are offering, mostly by their clients and potential investors. In order to strategize they will need to customize services based on locations in order to increase affordability and profitability and customer presence. What can we as a bank do to increase transparency and provide affordable services across the country???

Solution: Incorporate Demographic, Population and Socio Economic Data such as Settlement Density, Population Density, Poverty Data such as percent poverty rate across the country, Population breakdown by age group, number of unemployment. This can be mapped out and analyzed for the whole country and determine how better to structure their services.

Benefit: By utilizing Demographics and Socio-Economic data it will enable the branch managers and analysts to determine the best locations to target as well as customize services to make it more affordable throughout the country.

[Click Here to Unlock Map](#)



Scenario 3: Business Analysis & Client Location Information

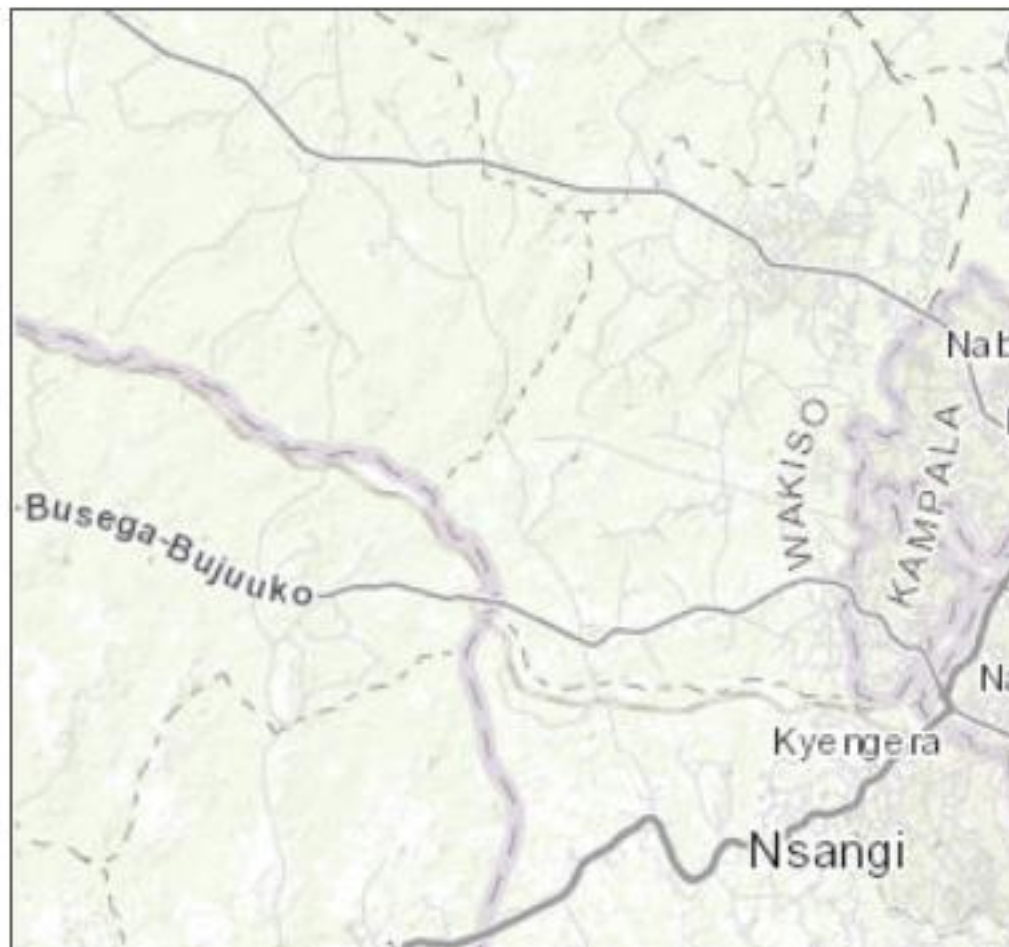
Problem: Over the past few weeks bank staff have received complaints from clients regarding the quality of their services, ATM queues are longer, services are slower at certain branches and the quality of services are slow and lacking in part of the country. Banks are sometimes not able to cope with the large amounts of deposits or withdrawals and sometimes lack of resources are forcing clients too seek alternative means which is a direct loss to the bank.

Solution: In order to address this issue all the client locations need to be mapped out together with the amount of deposits monthly, yearly as well details such as mobile money usage monthly and types of banking facilities utilized mostly. This will enable better planning and allocation of resources.

Benefit: This will enable for better financial planning and implementation of services based on demand, location per ward as well as the total amount of cumulative deposits, withdrawals as well as the location of the ATM and proximity to banks.



[Click Here to Unlock Map](#)



Scenario 4: Business Analysis for Banks (Resource Allocation)

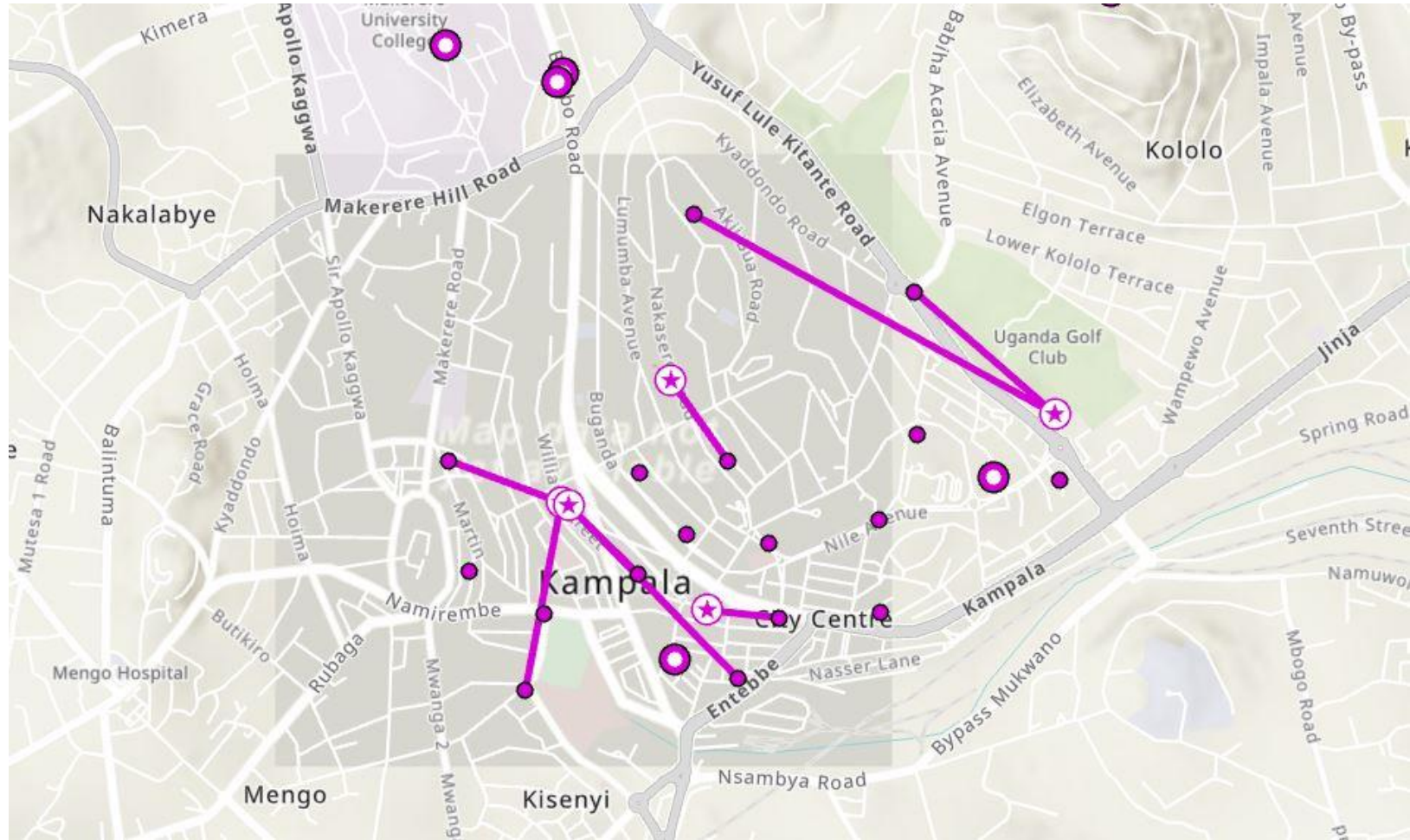
Problem: Over the past few years the number of services have increased and the ability of the bank to cater for the demand has increased. Sometimes due to the number of people in the area, the services as well as the population increase cause staffing issues as well as services have been compromised. Lots of waiting times and banks are unable to plan as to which demand is within close proximity to a certain branch and how many people it will serve.

Solution: In order to address this issue allocation analysis is utilized. This means the demand will be calculated based on travel time around the bank and all outliers will be eliminated. Also bank capacity can be stated such as if the bank can hold 200 clients a day and the demand is 400 then the rest will be redirected to various other banks based on the travel time and if the bank has reached capacity or not. In the next slide I have calculate a drive time of 5 minutes with a capacity of 30 people per bank with the analysis choosing the top 5 banks.

Benefit: This will enable for better planning and allocation of resources to meets the demands of the people.

Analysis 5 Minutes Drive time, 30 clients per bank and Selection of the top 5 banks to fulfill the criteria.

- Location-Allocation 8
 - Facilities
 - Chosen (pink star)
 - Required (black circle)
 - Competitor (grey circle)
 - Candidate (purple circle)
 - Demand Points (purple dot)
 - Point Barriers (red circle)
 - Lines (pink line)



Web Mapping Application (Resource Allocation)

[The Incident Analyser Application](#)

Scenario 5: Competitor Analysis & Marketing Strategies

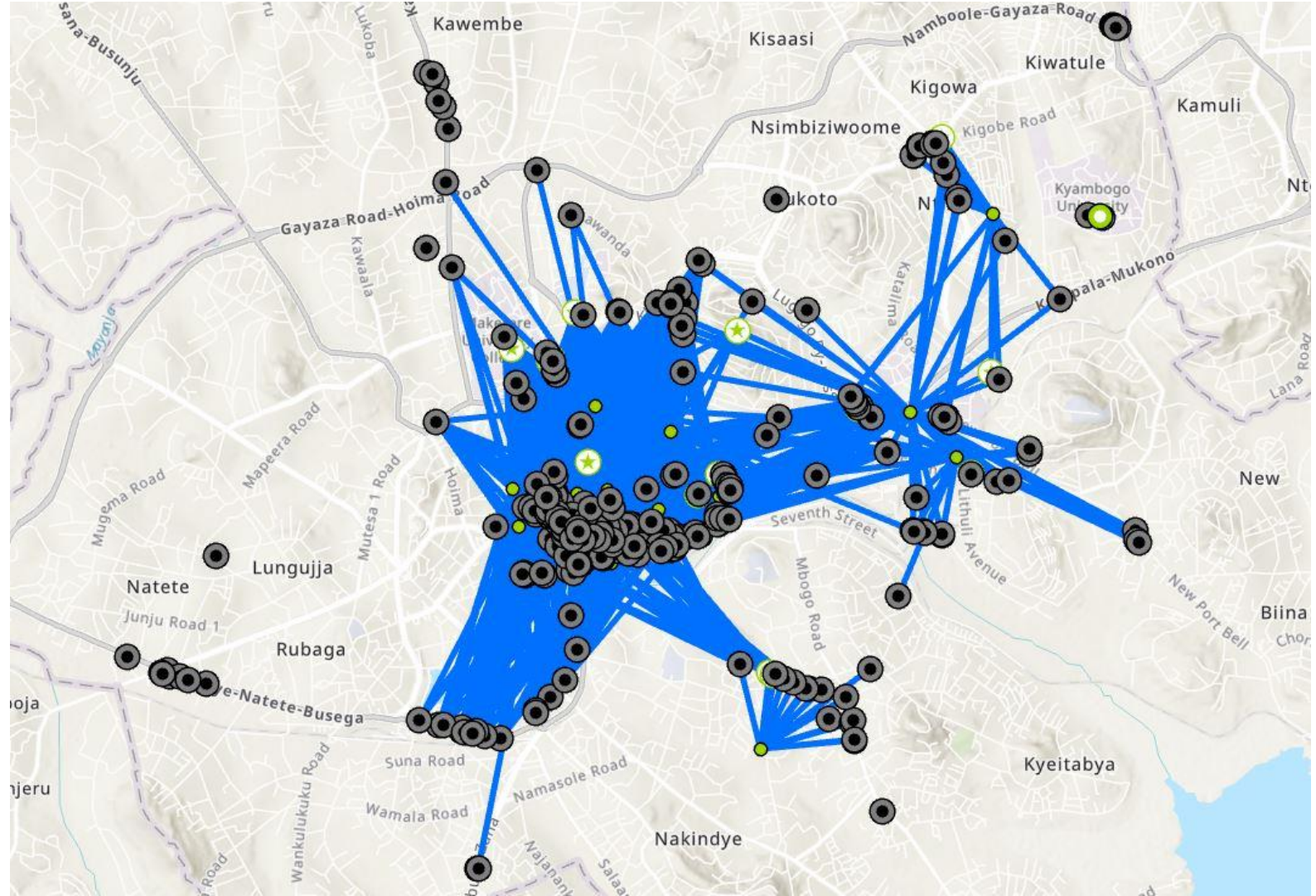
Problem: The number of banks have risen, there is a lot of competition. The clients are looking for both efficiency, services and products that are customized as well as increasing their market share in the area. They want to strategically target clients and make it easy to access services.

Solution: In order to address this issue allocation analysis is utilized with a focus on market intelligence and share. In order to achieve this travel time from store locations, locations of demand points which are the clients and the competitor is essential to figure out which stores fall within a certain drive time area will be chosen to fulfill a certain market share. In the following slide it shows analysis of a drive time of 5 minutes and a 75% market share based on the distribution and location of the clients. It shows which banks will be chosen to fulfill the demand.

Benefit: This will enable for better planning and allocation of resources as well as gain a competitive edge in the market.

Market Share analysis within a 5 minutes drive time with a target of 75%

- Location-Allocation 9
 - Facilities
 - Chosen
 - Required
 - Competitor
 - Candidate
 - Demand Points
 -
 - Point Barriers
 -
 - Lines
 -



Scenario 6: Market Research & Data Collection

Problem: The banking sector is constantly changing and the need for new data and information is critical. The branch manager has proposed to his staff the need for better business and location intelligent insights around the area. He would like to collect data on businesses, ATM locations in the area and various other data that would be beneficial to the overall performance of his branch. He would like to utilize an approach of data collection mapping and integration.

Solution: The solution would be to carry out field data collection using location based forms which are synchronized onto a real time dashboard. The data can be viewed, downloaded, analyzed and exported to various formats. Attribute information is preset and will automatically be added to each feature together with a photo and location.

Benefit: This is a cost effective method of gaining valuable insight around a branch or area as well as building a data repository which the bank branch can utilize to target businesses.

Data Collection Form Web Application

[Data Collection Dashboard](#)

Scenario 7: Web Based Technology & Banking Sectors

Problem: At a recent meeting managers were having a hard time with representation of data. Most of the time was spent search for data and most of them were unable to keep up to date with the latest data in the area in regards to social media and various channels.

Solution: The solution would be to carry create web mapping applications, with data which can be filtered and utilized for e.g. crowdsourcing as well as mapping out tweets and social media regarding topics such as the banking industry in the area.

Benefit: The utilization of social media will help identify trends in the industry and at the sasme time kep abreast of what people are talking about in regards to the banking sector. It can help structure or look into issues giving a better competitive advantage.

Social Media Web Mapping

[Social Media Twitter App Uganda Banks](#)

[Social Media Web App Nairobi](#)

[Social Media Public Info Web Map Kenya](#)

The Power of Story Maps!!

[Story Map Tourism Marketing](#)

[Story Map for News & Media](#)

Conclusion

- We have seen that the use of GIS Technology plays a beneficial part in the overall Banking Sector.
- It helps decision makers utilize the data and information to make more informed decisions.
- It promotes resource planning, allocation and market intelligence to aid in decision making.
- It is the only tool that adds a spatial dimension to data making data location aware.

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