
Social Network Analysis of Central Banks' Communications

Members:

Sarisa Sampassaneethamrong 6104640633

Sarita Pornkasem 6104640682

Natsinee Laohapakdee 6104640708

Anyamanee Lapprattana 6104640781



Agenda

Introduction

Sources of data

Methodologies

Result

Summary

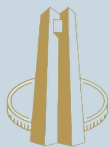
Introduction and project's background



Central Bank Of Nigeria

CBN Vision : "Be THE MODEL CENTRAL BANK delivering PRICE and FINANCIAL SYSTEM STABILITY and promoting SUSTAINABLE ECONOMIC DEVELOPMENT."

Mission Statement : "To be proactive in providing a stable framework for the economic development of Nigeria, through effective, efficient, and transparent implementation of monetary and exchange rate policy, and management of the financial sector."



SOUTH AFRICAN RESERVE BANK

South American Reserve Bank

The primary mandate of the South African Reserve Bank is to protect the value of the currency in the interest of balanced and sustainable economic growth.



Central Bank of Kenya

NCBA is a universal bank that aims to support the aspirations of Kenya and the region. From its individuals to companies and institutions. It is the largest institutions in East Africa and a true market leader in Corporate Banking, Asset Finance, and Digital Banking.



Bank of Uganda

Mission of Bank of Uganda: To foster price stability and a sound financial system.

Vision of Bank of Uganda: To be a centre of excellence in upholding macroeconomic stability.

Introduction

Source

Methodologies

Result

Summary

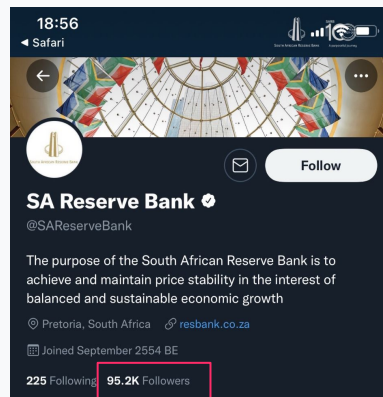
Introduction and project's background



Central Bank of Nigeria
Followers : 716.6K



Central Bank of Kenya
Followers : 71.7K

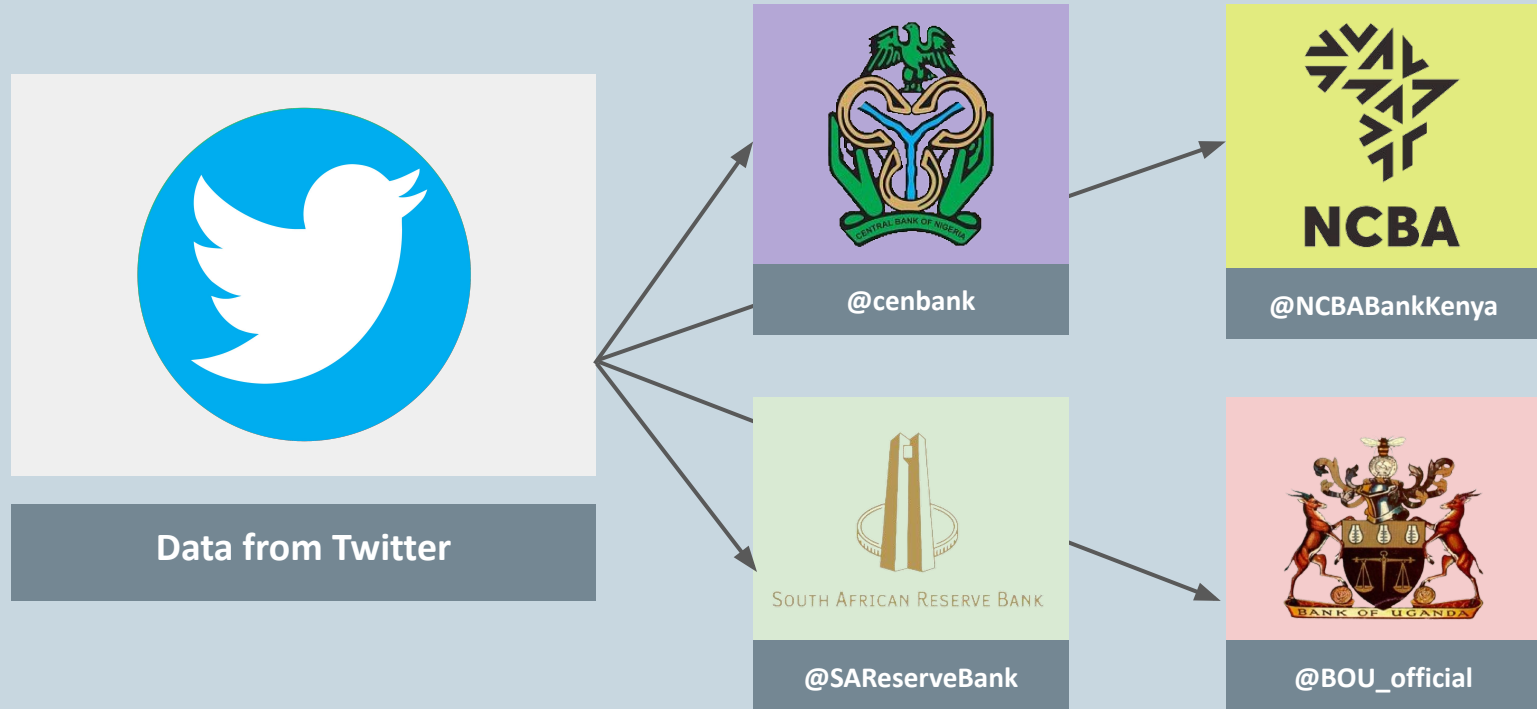


South Africa Reserve Bank
Followers : 95.2K



Bank of Uganda
Followers : 155.1K

Sources of data

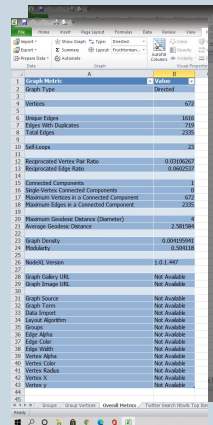
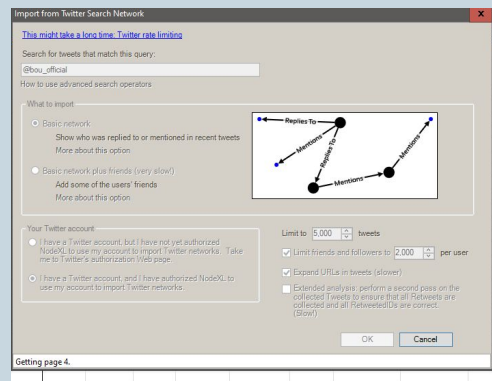


Briefs of analytical methodologies

- Used NodeXL to import 4 banks' twitter accounts: Central Bank of Nigeria, Central Bank of Kenya, South Africa Reserve Bank, Bank of Uganda
- Limited data to 5,000 tweets
- Network charts, number of main messaging activities, and all network indicators in overall matrices of 4 banks
- Used excel to create the comparison tables of main messaging activities and overall matrices between 4 banks



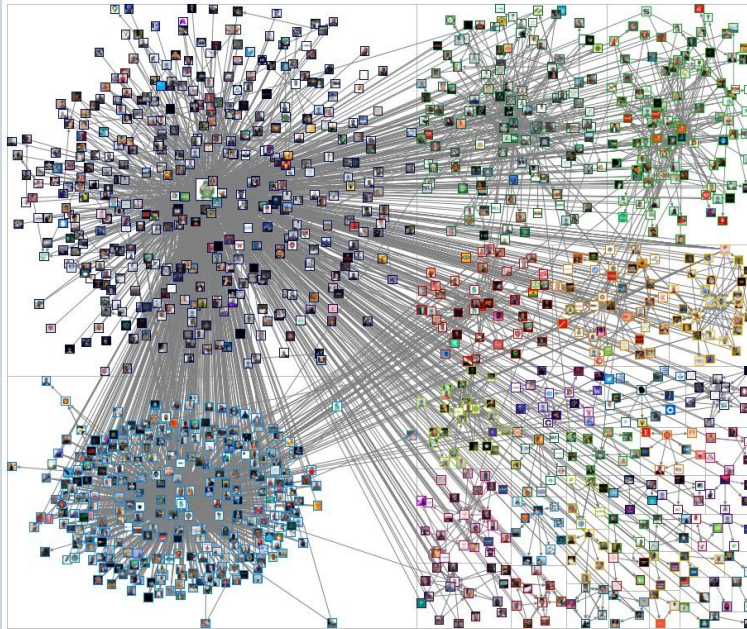
Analytical Methodologies



Shape	Size	Opacity
11	5.0	
11	5.0	
11	5.0	
11	5.0	
11	30.0	
11	5.0	
11	5.0	
11	5.0	

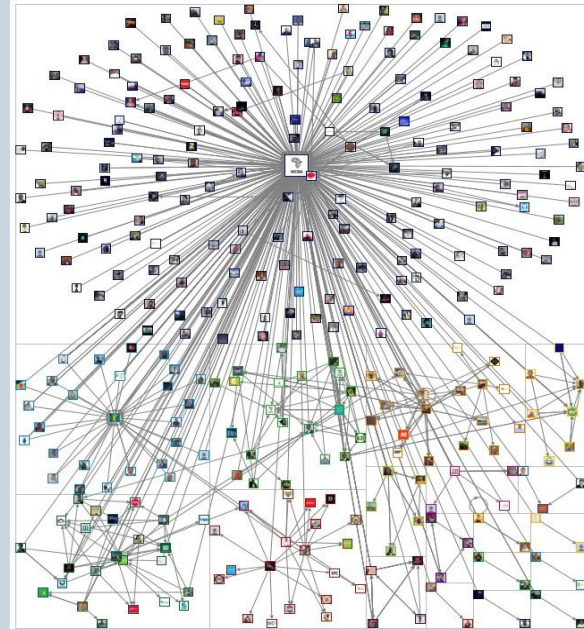
Task 1 - The network charts of twitter messages

Central Bank of Nigeria



Created with NodeXL Pro (<http://nodexl.codeplex.com>) from the Social Media Research Foundation (<http://www.smrfoundation.org>)

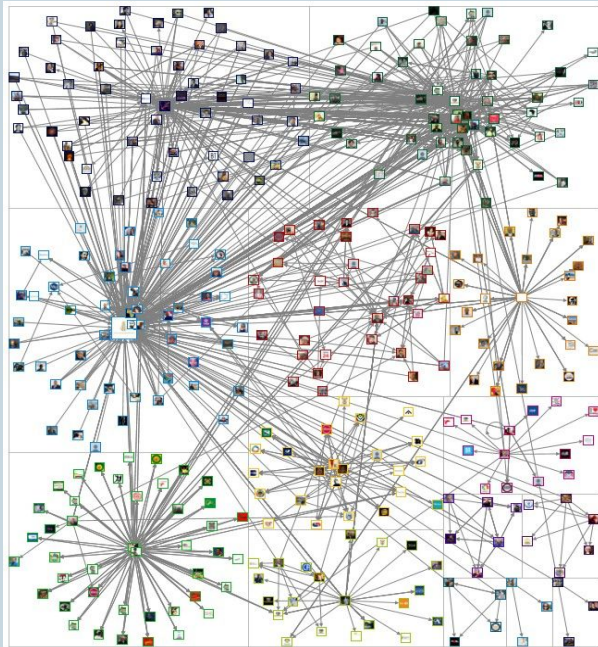
Central Bank of Kenya



Created with NodeXL Pro (<http://nodexl.codeplex.com>) from the Social Media Research Foundation (<http://www.smrfoundation.org>)

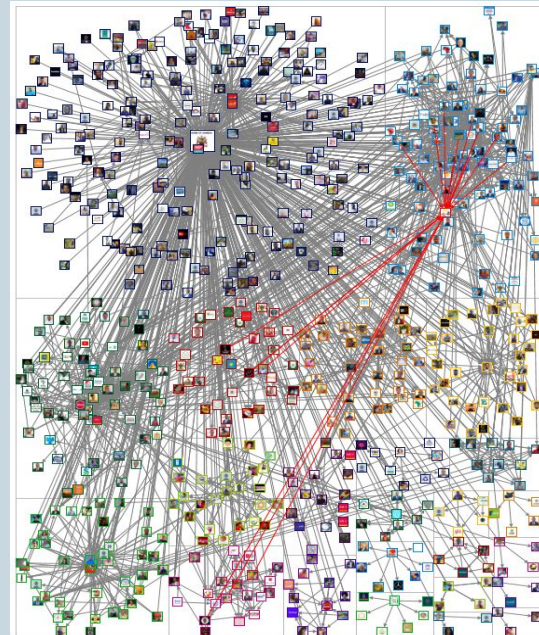
Task 1 - The network charts of twitter messages

South Africa Reserve Bank



Created with NodeXL Pro (<http://nodexl.codeplex.com>) from the Social Media Research Foundation (<http://www.smrffoundation.org>)

Bank of Uganda



Created with NodeXL Pro (<http://nodexl.codeplex.com>) from the Social Media Research Foundation (<http://www.smrffoundation.org>)

Task 2 - Compare the number of main messaging activities



	Tweet	Mentions in Retweet	Replies	Retweet
Central Bank of Nigeria (@cenbank)	-	1559	696	647
NCBA Bank (@NCBANKkenya)	25	90	160	185
South Africa Reserve Bank (@sareservebank)	2	575	310	141
Bank of Uganda (@BOU_official)	20	945	172	420

Highest number of each activities

- **Tweet:** Central Bank of kenka (25 Tweets)
- **Mentions in Retweet:** Central Bank of Nigeria (1559 Mentions)
- **Replies:** Central Bank of Nigeria (696 Replies)
- **Retweet:** Central Bank of Nigeria (647 Retweets)

- We can see that twitter account of **Central Bank of Nigeria** is the most successful one that use its twitter platform to communicate with the customers

Task 3 - Compare the key network statistics

	vertices	Unique edges	Total edges	Maximum geodesic distance	Average geodesic distance	Graph density	modularity
 Central Bank of Nigeria (@cenbank)	1223	2961	4439	4	2.431761	0.002333882	0.470159
 NCBA Bank (@NCBABank kenya)	329	407	704	4	2.396227	0.004689006	0.430017
 South Africa Reserve Bank (@sareserve bank)	349	580	2524	4	2.859714	0.008126667	0.249428
 Bank of Uganda (@BOU_official)	672	1616	2335	4	2.581584	0.004195941	0.504118

Key takeaways

- Central Bank of Nigeria get the most **Vertices**, **Unique edges**, and **Total edges**.
- They all has the **same Maximum geodesic distance**.
- South Africa Reserve Bank has the **highest average geodesic distance** and **Graph density**.
- Bank of Uganda has the **highest modularity**.

Task 4 - The key findings

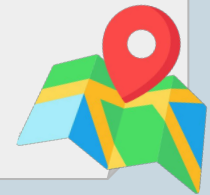
→ We learn that **Twitter** can be **one of the medium platform** that can communicate and share many informations to a **large group of people**



→ From our research, **Central Bank of Nigeria** has the most successful **Twitter** usage for communication among other countries in South Africa.



→ **However**, there are still many countries that may **not get the best response** from **Twitter** such as Bank of South Sudan that have only 144 followers



Policy recommendations

- To **improve their communication** via **Twitter**
 - Imply more **keywords** and implement **hashtags**
 - Posting more **informative** photos and videos in Twitter feed
 - The account should be **active** 24 hours and interact with followers
 - The post should be **latest update** constantly

