

Geo-Visualization of hotspot of Citizens Dissatisfaction on Social Services Using media print: A Case Study of Nigeria Fuel and Cash Scarcity.



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INTRODUCTION

The recent expression of public dissatisfaction in Nigeria about the scarcity of cash and petrol has highlighted the crucial role that these resources play in a modern economy, and the scarcity of these resources can have a ripple effect on various aspects of society, including transportation, commerce, and daily living expenses. For efficient resource allocation during this crisis and better understand of the situation, we developed a data-driven solution that utilizes Geosematics technique to understand the.



Figure 1: Image of the cash and fuel scarcity situation in Lagos source: punch news paper

MATERIALS AND METHODS

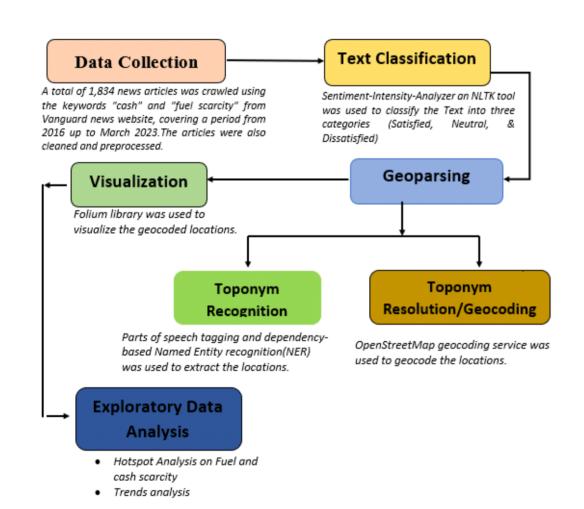


Figure 2: Methodology Flowchat

Yearly Trend of Citizens Dissatisfaction Over Fuel and Cash Scarcity Between 2016 to 2023 175 150 100 75 50 25 2016 2017 2018 2019 2020 2021 2022 2023 Year

 $Figure\ 4: Map\ showing\ yearly\ trend\ of\ citizens\ dissatisfaction\ over\ cash\ and\ fuel\ scarcity\ in\ Nigeria.$

Table 1: Sample data Set used.

State	Title	Content	Date_Published	Classification	Location	Longitude	Latitude
Abuja Federal Capital Territory	Petrol queues resurface in Abuja over fear of price hike and scarcity	Long queues have resurfaced in Abuja filling stations as motorists struggle to purchase Premium Motor Spirit, also known as petrol	15/11/2021	Dissatisfied	Abuja	9.0643305	7.4892974
Kaduna	Hajj 2019: Aviation fuel scarcity disrupts transportation of Nigerian pilgrims	The ongoing transportation of Nigerian pilgrims from Saudi Arabia has been disrupted due to the scarcity of aviation fuel(Jet A1) in the domestic market	30/08/2019	Dissatisfied	Kaduna	10.3825318	7.8533226
		The Lagos State Government on Wednesday said it would no longer allow indiscriminate parking of vehicles on the road networks across the state on the basis of queuing up for Premium Motor Spirit otherwise known as fuel, just as it					
	Fuel scarcity: Lagos bans indiscriminate ques	threatened to sanction any erring filling station and motorists who flaunt the					
Lagos	at petrol stations	directives.	06/04/2016	Dissatisfied	Lagos	6.4550575	3.3941795

 $Figure\ 5: Live\ dashboard\ showing\ places\ where\ citizens\ are\ dissatisfied\ over fuel\ and\ cash\ scarcity.$

RESULTS AND DISCUSSION

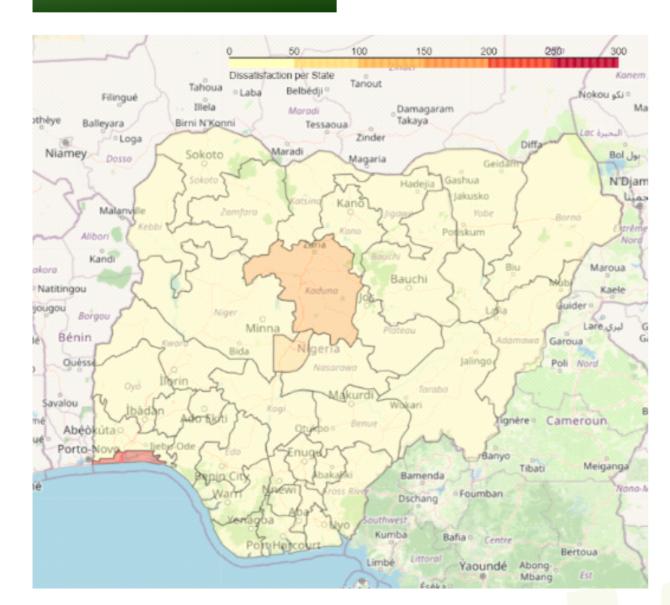
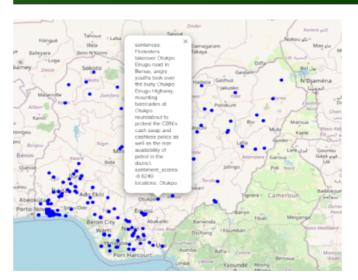


Figure 3: A map of Hotspot locations of citizens dissatisfaction over cash and fuel scarcity.

CONCLUSION AND FUTURE WORK



This study has shown the possibility of getting citizens dissatisfaction on social services through media print.

Further research can;

- Make use of social media data like Twitter, etc.
- Train an NER model on Nigerian locations.

REFERENCES

- 3) Nadeau, D. and Sekine, S: A survey of named entity recognition and classifica 3-26,2007.
- 5] Enhancing spatial and textual analysis with EUPEG: an extensible and unified Jimin Wang and Yingjie Hu GeoAl Lab, Department of Geography. University
- 9] Wang. J. Li, L. Tan, F. Zhu, Y. & Feng, W. (2015). Detecting Holapot Informatio Model. Journal of PLoS ONE, 10(10), 1-16. doi:10.1371/journal.pone.0140539 PMII
- 12] Cardone, B: Di Martino, F: Miraglia, V. A GIS Based Hot and Cold Spots Detedfrom Social Streams.

 Future Internet 2023.15.25
- 20] Stuart and Vadims, Geoparsing and geosemantics for social media: spa propagating rumours to support trust and veracity analysis during breaki Machinery (ACM) DOI:10.1145/2842604Tat