



INTRODUCTION

- Corruption in the UK may not be that prominent but it has always been a controversial topic for the parliament.
- One of the major reasons for this is the unclear donations to the political parties both in power and the opposition.[1]
- Donations coming from corporate are discouraged but donations coming from individuals are not paid much attention to [2].
- We develop dashboards [3] to analyze trends in past donation information of political parties and gain insights into the UK as a whole and the city of London.

AIM & CHALLENGES

Aim:

This study aims to use data visualization techniques to help make better data-driven decisions for policy recommendations for the scope of financial crime or the budgets of law enforcement agencies.

Challenges:

- How the number and value of donations changed over time for each party, was there any specific pattern for the donations?
- What was the location from which the donations were made?
- What were the sources of donations for each party, did the distribution of the source change at any time?
- Were there any key discrepancies prior to or during key democratic events such as the general elections or the Brexit referendum for each party?

DATA



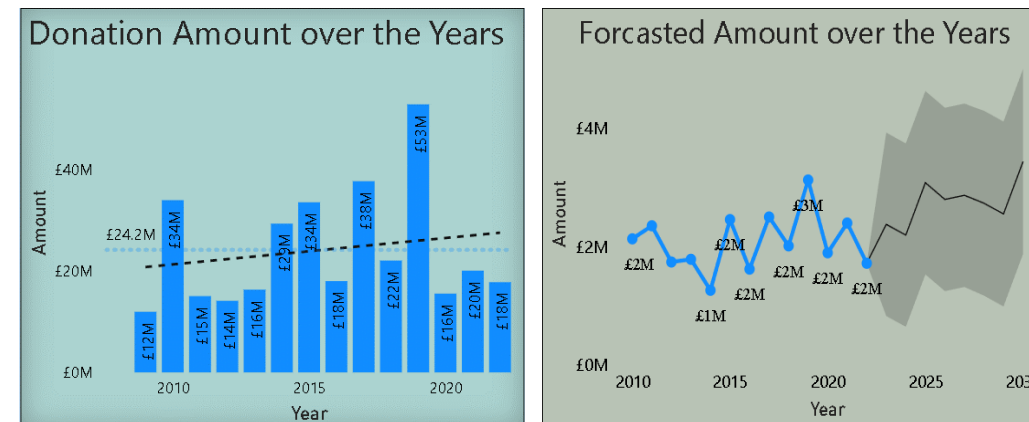
In collaboration with the research charity Spotlight on Corruption, the data used in this project is from the public electoral commission database. The dataset contains around 50 thousand entries from 2009 to 2022 with the amount and method of donation, type of donor, and the party it was donated to.

METHODOLOGY

Temporal Visualization

We use bar charts and line charts [4] to represent the value of donations over the years to each party.

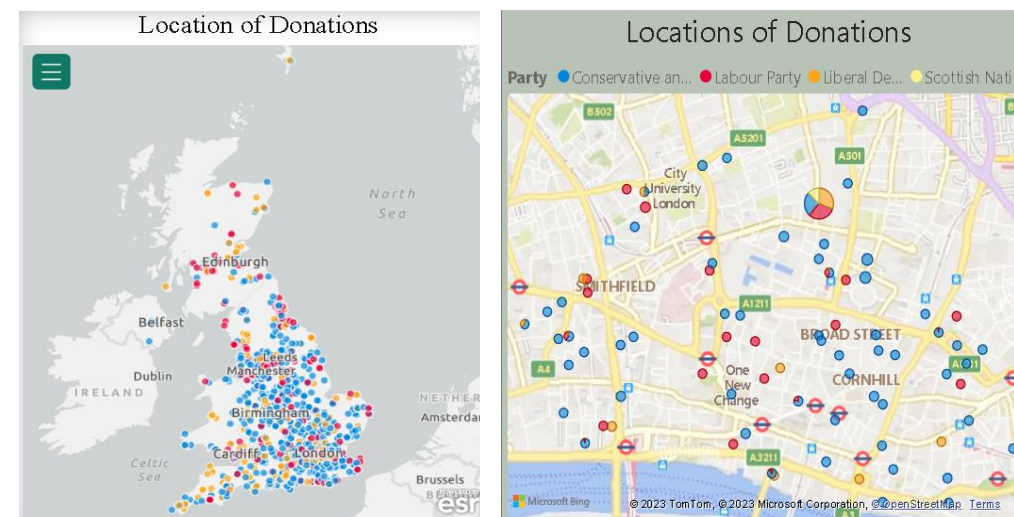
We also use the forecast analysis method to see the trend for upcoming years



This visualization helps us to find if there were any changes in the amount of donations with respect to the reigning and opposition party over the time.

Geospatial Visualization

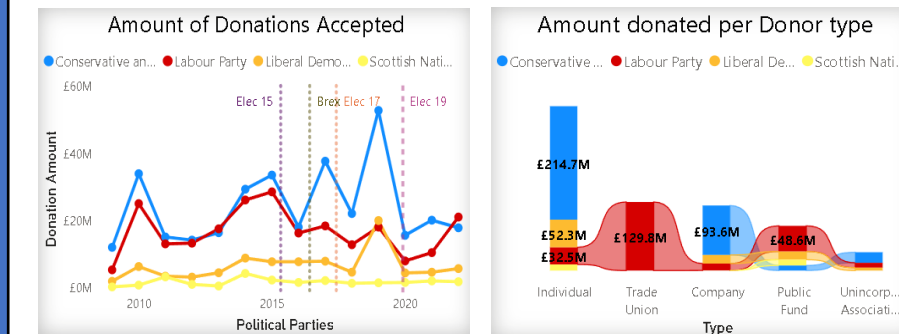
We use the ArcGis and the map feature [4] to map the postal codes from which the donation was made to the respective party and the value of the donation from it.



This visualization helps us in determining whether there is a location bias toward the donations to any specific party and if there were multiple donations from the same location.

Comparative Visualization

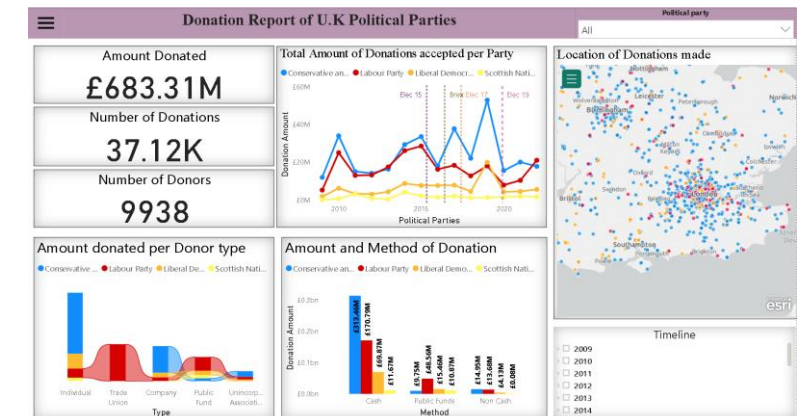
We provided a comparative study [5] on major political parties with respect to the amount of donation, the method of donation and type of donation.



We also highlight the important dates to analyze the changes during that period.

RESULTS

Interactive dashboards have been created for each category: overview, political parties, and the City of London. These dashboards allow users to navigate, filter and drill down for more detailed insights.



REFERENCES

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- [3] Dilla, Janvrin, D. J., & Raschke, R. (2010). Interactive Data Visualization: New Directions for Accounting Information Systems Research. *The Journal of Information Systems.*, 24(2). <https://doi.org/info:doi/>
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- [5] Hinterberger, H. (2009). Comparative Visualization. In: LIU, L., ÖZSU, M.T. (eds) *Encyclopedia of Database Systems*. Springer, Boston, MA. https://doi.org/10.1007/978-0-387-39940-9_1385