

VISUALIZING OFFICIAL STATISTICS USING MICROSOFT POWER BI

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I. INTRODUCTION

Official Statistics are statistics produced and disseminated by government agencies or international organizations.

Official statistics result from the collection and processing of data with due consideration of statistical standards which make them fit for purpose or of quality.

However, dissemination of official statistics, specially visualization of official statistics, is not given the same importance as with other statistical processes.

II. VISUALIZATION

WHY DO WE NEED DATA VISUALIZATION?

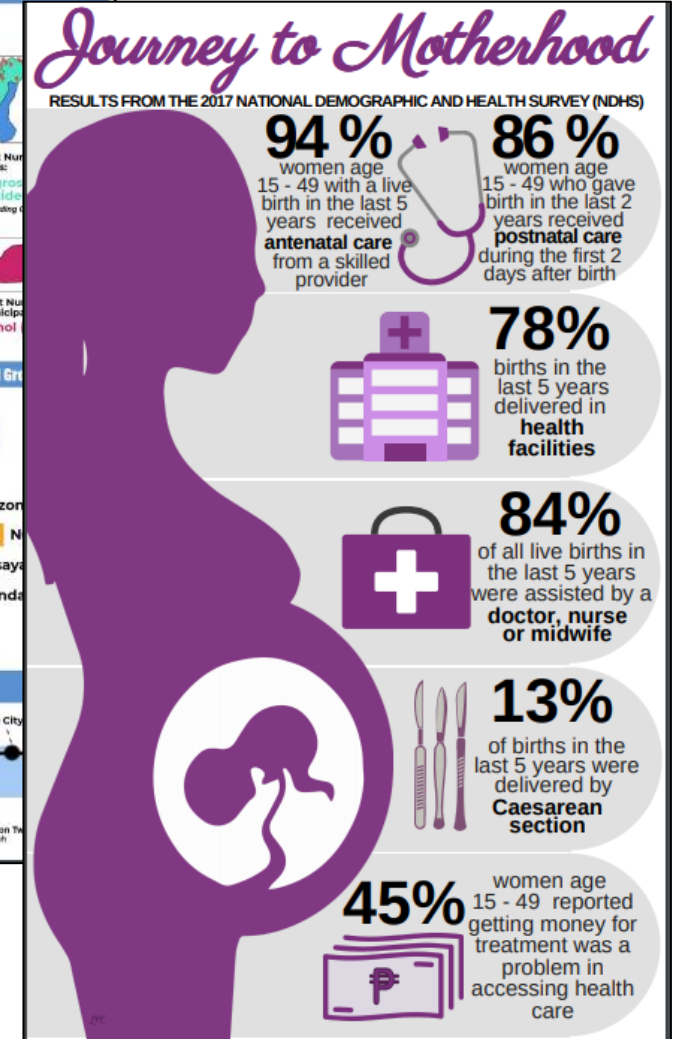
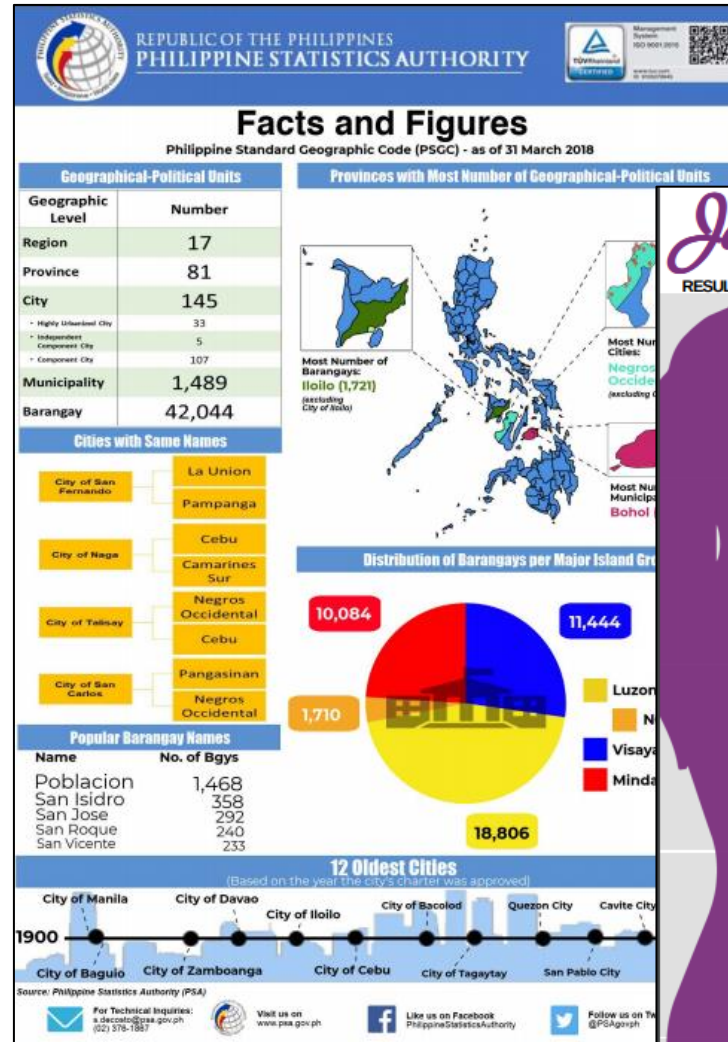
- One of natural instincts of humans is to see and understand pictures
- Understanding numerical data takes years of training from schools and even so, a lot of people are still not good with numerical data
- It is much easier to find trends and relations from a well-drawn picture since data visualization shifts the load from numerical reasoning to visual reasoning

I. INTRODUCTION

STATIC VISUALIZATION

- commonly seen as infographics posted on the website or printed handouts
- focused on a specific data story
- data story is captured in an engaging single page layout

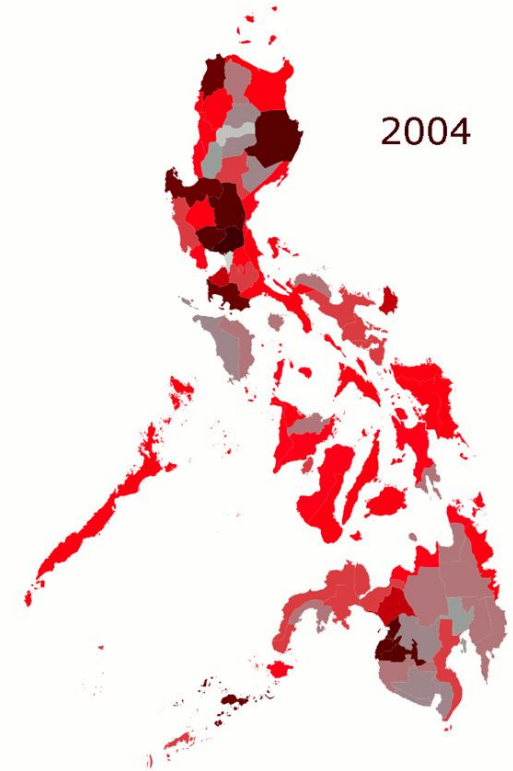
Infographics



II. VISUALIZATION

INTERACTIVE VISUALIZATION

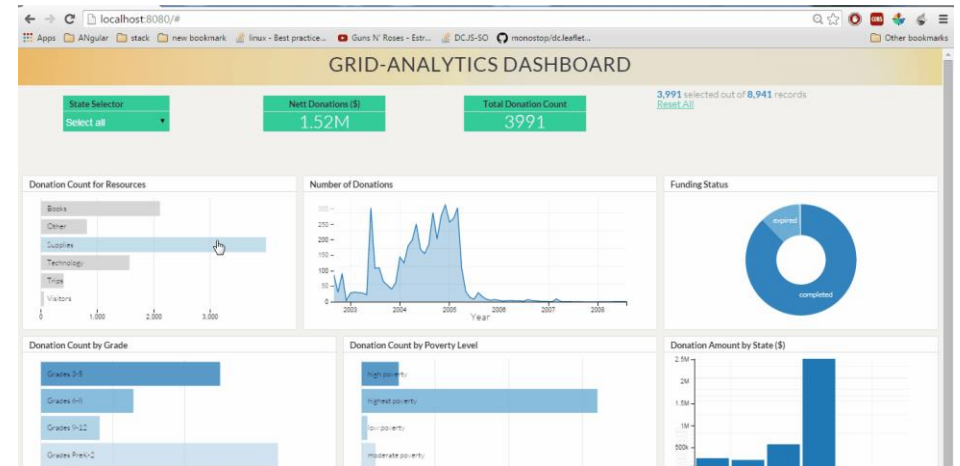
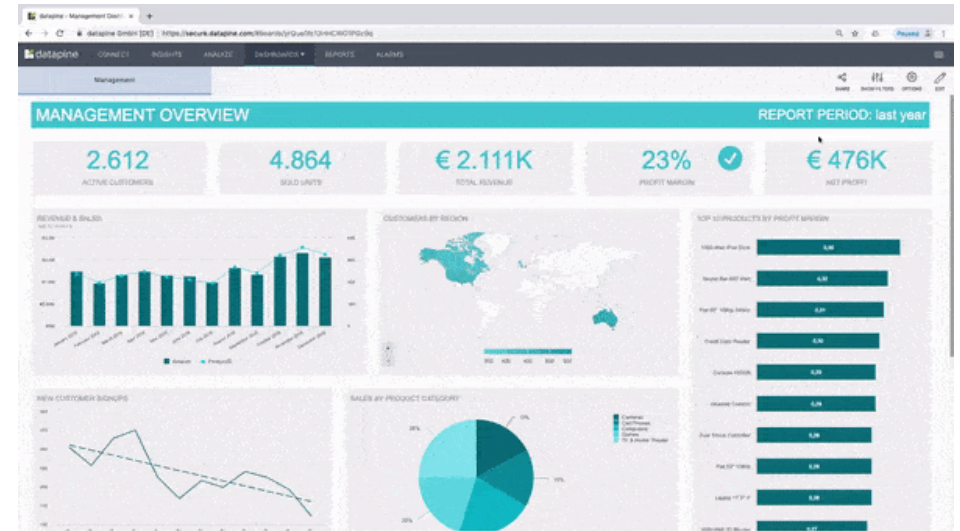
- focused on graphic visualization and improving the way users can access and interact with information
- allow users to be part of the data visualization process by building a story of their choosing
- commonly seen as interactive dashboards for quick and easy way to understand insights based on changing data



II. VISUALIZATION

INTERACTIVE VISUALIZATION

- grant users the ability to explore, manipulate, and interact with data by employing dynamic charts, changing colors and shapes based on queries or interactions
- offer better access to real-time data which is valuable for a variety of organizations
- can diversify the way we display the data



III. POWER BI

MICROSOFT POWER BI

A cloud-based business intelligence tool that let us visualize our data, share insights across our organization, and bring our data to life with live dashboards and reports.

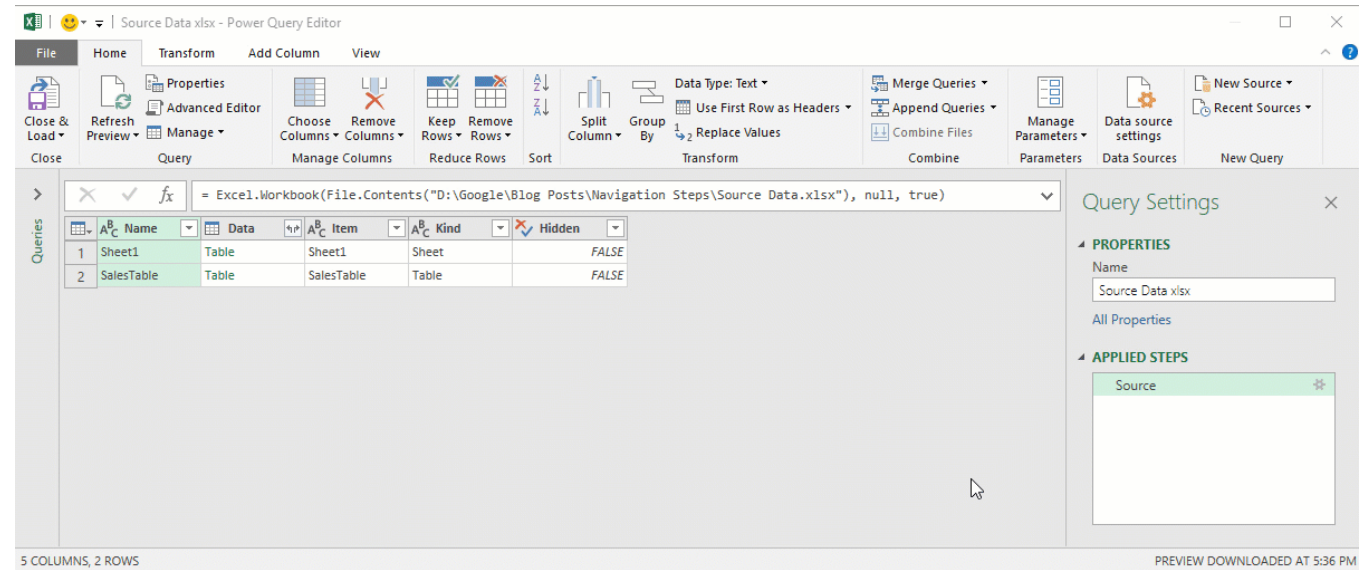


III. POWER BI

QUICK OVERVIEW OF COMPONENTS OF POWER BI

Power Query is a data transformation and mash up tool

- can extract data different data sources and databases
- can use online search or use web address to fetch the data from web page

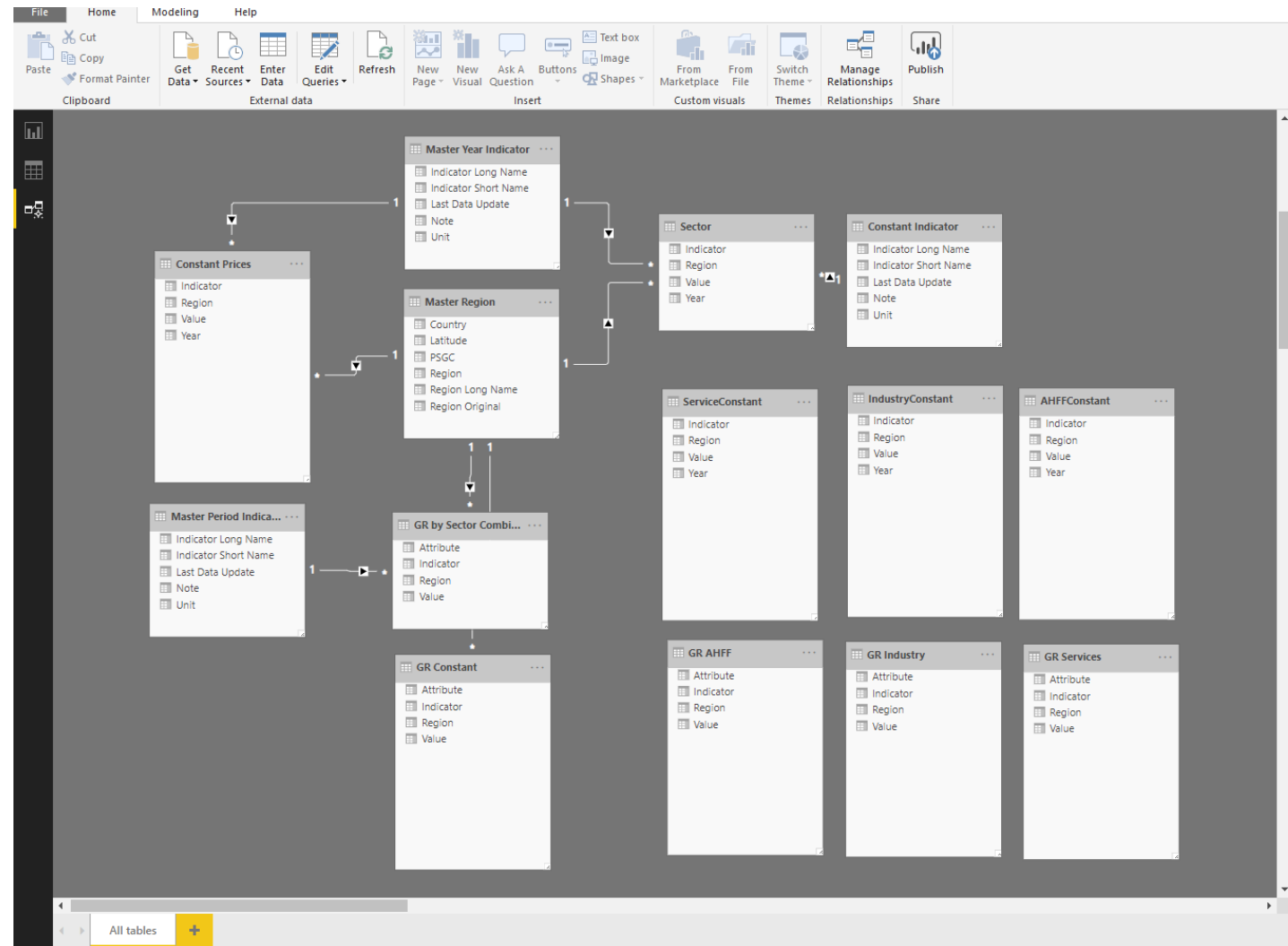


III. POWER BI

QUICK OVERVIEW OF COMPONENTS OF POWER BI

Power Pivot is a in-memory tabular data modelling tool

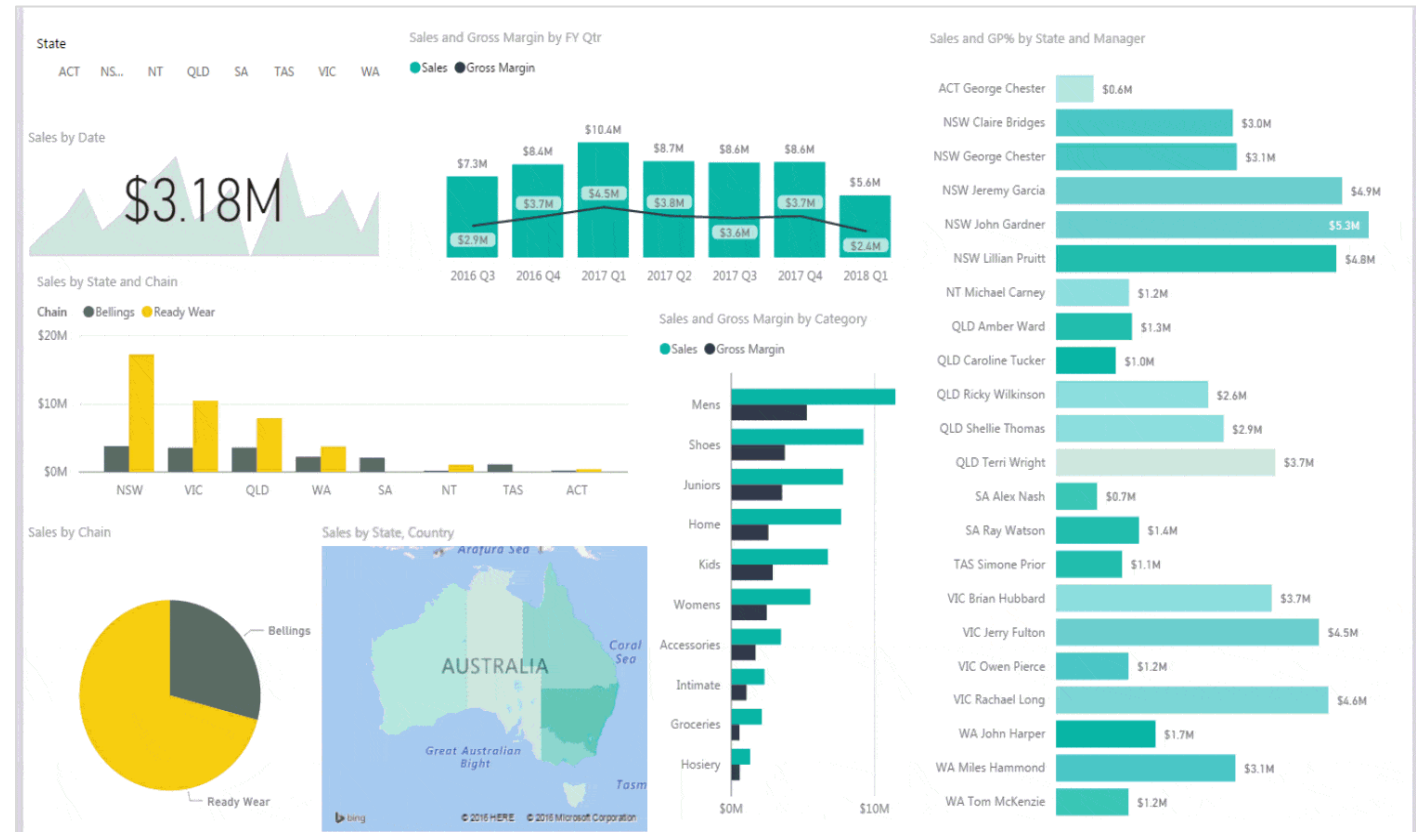
- can build star schema, calculate measures and columns, build relationships through entities, etc.



III. POWER BI

QUICK OVERVIEW OF COMPONENTS OF POWER BI

Power View is an interactive data visualization that can connect to data sources and fetch the metadata to be used for data analysis

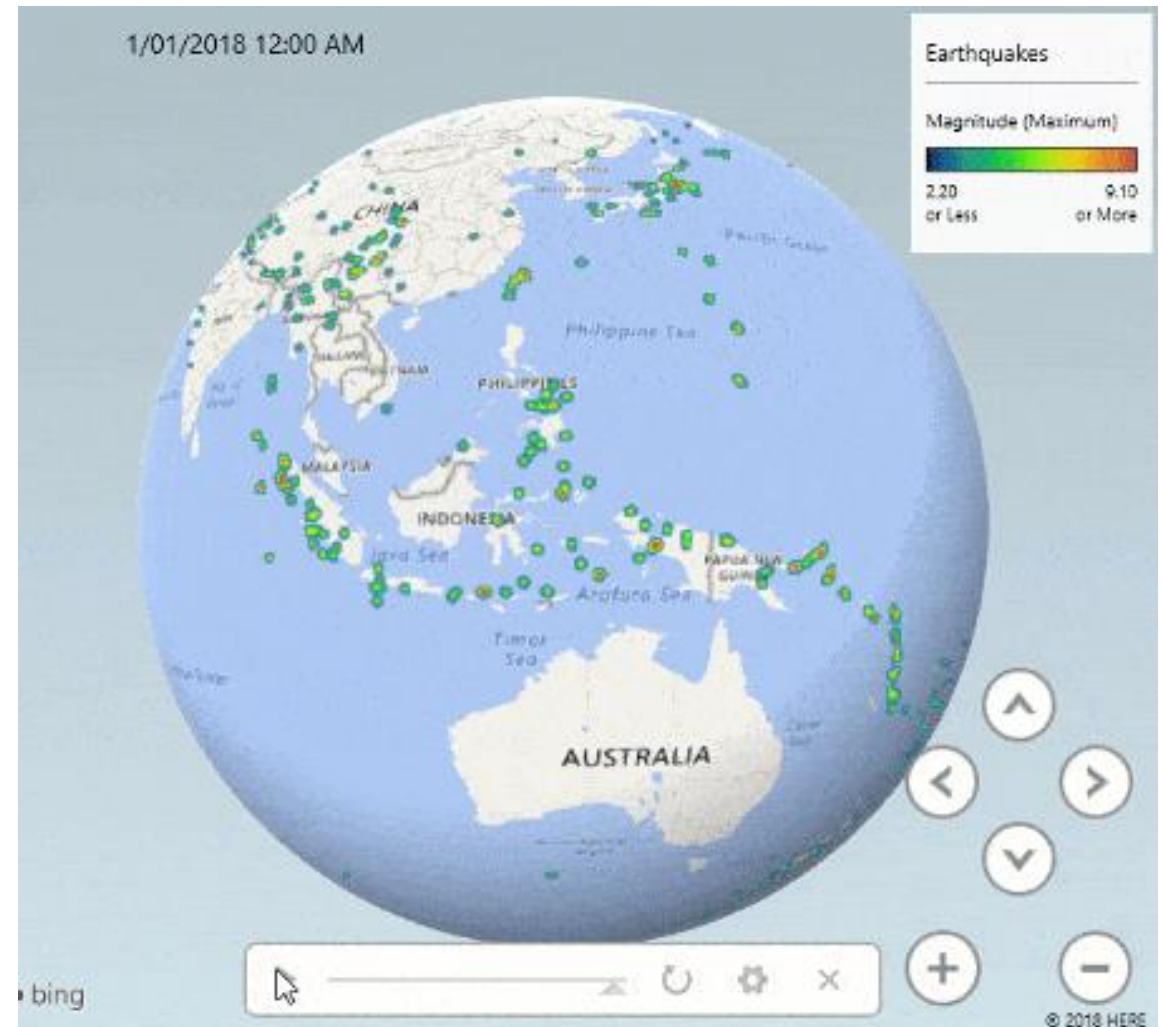


III. POWER BI

QUICK OVERVIEW OF COMPONENTS OF POWER BI

Power Map is for visualizing geospatial information in 3D mode

- It gives another dimension to visualization
- can measure as height of a column in 3D or in heatmap view



III. POWER BI



**Power BI
Desktop**

The screenshot shows the Power BI Desktop application window. The interface is divided into several sections, with red boxes and lines highlighting specific features:

- Edit Queries:** A red box points to the 'Edit Queries' button in the 'External data' group of the ribbon.
- Report:** A red box points to the 'Report' view icon in the left-hand navigation pane.
- Data/Tables:** A red box points to the 'Data/Tables' view icon in the left-hand navigation pane.
- Model/Relationship:** A red box points to the 'Model/Relationship' view icon in the left-hand navigation pane.
- Publish:** A red box points to the 'Publish' button in the 'Share' group of the ribbon.
- Visualizations:** A red box points to the 'Visualizations' pane on the right side of the interface.
- Fields:** A red box points to the 'Fields' pane on the right side of the interface.
- Page:** A red box points to the 'Page' view icon in the left-hand navigation pane.

The interface also shows the ribbon with tabs for File, Home, View, Modeling, and Help. The 'Home' tab is active, showing various tool groups like Clipboard, External data, Insert, Custom visuals, Themes, Relationships, Calculations, and Share. The right-hand pane shows the 'VISUALIZATIONS' and 'FIELDS' panes, with the 'FIELDS' pane containing a search bar and sections for Values, FILTERS, and DRILLTHROUGH.

III. POWER BI

POWER BI SAMPLE OUTPUT

1. Gross Regional Domestic Product, 2009-2017
<https://bit.ly/3ADZS1V>

2. Poverty Incidence, 2006-2015
<https://bit.ly/3ABwTvl>

3. Consumer Price Index, January 2012 – August 2019
<https://bit.ly/3AcsXA2>

Thank You!



<http://www.psa.gov.ph>



/PhilStatAuthority



@PSAgovph



Graphic Interchange Format Sources:

9 Reasons why Power BI is the Best Tool for Data Analysis

By Edwin Lisowski

<https://addepto.com/another-9-reasons-why-power-bi-is-the-best-tool-for-business/>

How much of our country will we lose to political dynasties in 2016?

Source: rappler.com

Move Beyond Excel, PowerPoint And Static Business Reporting with Powerful Interactive Dashboards

By Sandra Durcevic

<https://www.datapine.com/blog/interactive-dashboard-features/>

Drag and Drop Visuals in your Interactive Dashboard – Gridster & D3.js

The Tech Blog

<https://anmolkoul.wordpress.com/2015/07/06/drag-and-drop-visuals-in-your-interactive-dashboard-gridster-d3-js/>

Query and Power BI – Navigating to rows, columns and cells

By Miguel Escobar

<https://www.poweredsolutions.co/2018/04/09/the-navigation-step-in-power-query-and-power-bi-navigating-to-rows-columns-and-cells/>

Graphic Interchange Format Sources:

Power BI Course

MyOnlineTrainingHub <https://www.myonlinetraininghub.com/power-bi-course>

Excel 3D Maps

MyOnlineTrainingHub <https://www.myonlinetraininghub.com/excel-3d-maps>