The importance of Data Management in the Digital age

By Nerson Tjelos
Bill Gates Or the Database?

Whatever is happening today should have been picked up 5-10 years ago. Agree?
Data Management?

• Development and execution of processes, architecture, policies, practices and procedures – to manage an institution’s information:
  • Compliance regulations, amount of data generated vs storage space, valuable resource for business – efficiency, growth etc.

Stats from the US (National Archives & Records Administration in Washington):
• 93% of companies that lost their data center for 10 days or more due to a disaster filed for bankruptcy within one year of the disaster.
• 50% of businesses that found themselves without data management for this same time period filed for bankruptcy immediately.
The Journey

1. Data Origination
2. Data Extraction
3. Data Aggregate
4. Data Quality Assessment
5. Data Analysis/Insight
6. Action

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Data Origination

• The points of origin for Data have increase as a result of digitalization:
  • Websites – How many people visit your site, what do they do when they are on your site, what is drawing them to your site.
  • Weather Centres – Its very easy to know that a cyclone, heatwave, drought, rain, mist is coming with the advances in weather collection equipment.
  • Smart Watches – You can now identify irregular heart rythms, heart rates.
  • Mobile Phones/Tablets/Phablets – Now the ordinary person can carry multiple internet enabled devices collecting all types of information
  • Mobile Apps – What are peoples’ interests and what draws them to the apps
  • Television Apps – NBC launched a TV app, that means they can know more about what programs/channels are people watching or interested in. Yesterday we witnessed the defeat of the Manchesters on the phone while setting up our stand
  • Social Media – we all know what facebook and google do with the data they collect from us.
Data Quality Assessment

• So understanding that the points of origin have grown exponentially, its is vital to understand the quality of this data, prepare it, de-duplicate the data (wash it).

• Data Quality assessment is vital in ensuring that the data can be used to provide accurate and actionable intelligence.

• This involves assessment of the data identifying challenges from source/point of origin with recommendations on how to improve the point of origin.
Data Extraction

• While data may reside/originate from a variety of devices extraction is the next big question.

• Using tools such as Pentaho, Elastic, Talend, Data Stage, Jasper etc. Business can extract data from these numerous sources to converge in a single database.
Data Aggregation

- Consolidating the data into a structured data storage/warehouse is the next step in the cycle.
- Making the data accessible for users to draw insights and understanding from the data.
- Creation a single source of the truth for the business.
- If anyone needs data they must go to that one place.
Data Analysis

• Visualizing the data is the next step

• Getting new perspectives on the data and quickly getting understanding of the pain points just by a graph.
Action

• The next step is action,
• What action do you take based on the numbers?
• Do we plan for alternative sources of water since the rains will be low?
• To whom should we target our promotions? The low end customer or the high end customer?
• When is the best time to plant a crop?
• What do Namibian viewers like to watch on TV, should we buy more such programs to keep them entertained?
• What are people saying about my brand on social media, should I employ a PR company to rebrand and regain trust?
So why data management important?

• Predicting churn of customers on specific behaviors.
• As BI Dynamics we have helped a number of companies to identify churn and predict if subscribers are about to churn to the competition.
• For one client we were able to free IT from the need to prepare reports for other more value adding tasks.
• We helped a certain customer identify and retain their high value customers and increased their revenue by 12%.
• We enabled a customer to initiate a cleanup exercise in which 25% of the duplicate data were found.
In summary:

• You can easily collect data but...managing, organizing, and utilizing that data can make or the bottom line.

• Data is not today’ oil because oil non renewable. Data is the soil. Treat it well and you will feed nations!
Thank you!