Comparing blockbuster BI tools in visualization
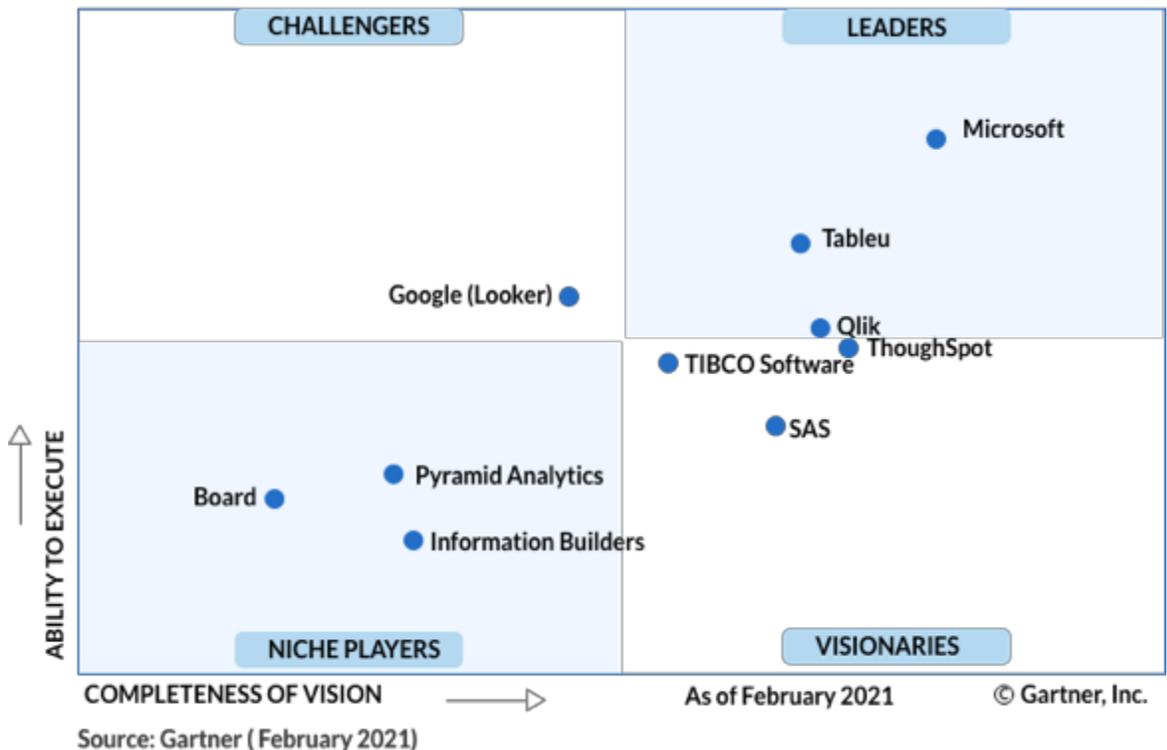
Comparing visualization tools for optimal business insights!!!

Introduction

Heaps and bounds of hidden, precious market and customer insights within 1s and 0s of Big Data had once upon a time quite overwhelmed data scientists. Nothing would have been more baffling than making meaningful sense out of these information for data analysts and digital marketing experts. However, a variety of today's powerful visualization tools and platforms facilitate parsing a large array of data to churn-out decision-making insights to be displayed to Enterprise owners.

The following picture shows Gartner's magic quadrant for the year 2021, with positions of leading global Enterprises who have found huge success on their usage of Business Intelligence platforms:

Figure 1: Magic Quadrant for Analytics and Business Intelligence Platform

Source: Gartner (February 2021)

Comparing BI Visualization tools – an Ameex perspective

Selecting those that best communicate with your audience & customers!!!

The challenge now is to select the right visualization platform that best suits your business. This includes answering a variety of queries you must ask yourself - where do you want your business to head, whom to give access to what data, the specific tech stack that suits your business best etc. Here, Ameex data analysts and experts have researched and rounded-in details of best-in-class latest crop of visualization BI tools and the business requirements that they will superlatively cater:

	tableau	DOMO	Power BI	MicroStrategy	Google Data Studio	TIBCO
Devices supported						
Windows	√	√	√	√	X	
Android	√	√	√	√	X	
iOS	√	√	√	√	X	
MaxOS	√	√	√	√	X	
Web	√	√	√	√	√	
Windows Mobile	X	X	√	X	X	
Deployed in						
On Premise	√	√	√	√	X	√
Cloud	√	√	√	√	√	√
Type of Customers catered to						
Consultants	√	√	X	√	X	√
Small Business	√	√	X	√	√	√
Medium Business	√	√	√	√	√	√
Large business	√	√	√	√	√	√
Collaboration features	√	√	√	√	√	√
Public Link compatibility	√	√	√	√	√	√

	tableau	DOMO	Power BI	MicroStrategy	Google Data Studio	TIBCO
Embedding displays	√	√	√	√	√	√
Type of support provided						
Through phone	√	√	X	√	X	√
Online	√	√	√	√	√	√
Knowledge libraries	√	√	√	√	√	√
Audio/Video guides	√	√	√	√	√	√
Facility to integrate						
API	√	√	√	√	X	√
Languages that is/are supported	Java Script	Java Script, HTML, CSS	Java Script, .Net	Java, C++, VB, XML, and standard Web and client-server technologies	X	JavaScript, R (TERR) scripts, Python (IronPython for .Net), Custom queries (different database query languages)
Free Account Features	Free Public account	Free Desktop version	Desktop version – Free	Desktop version – Free	Free	30 Days Free Trial
Paid Account Features	https://www.tableau.com/pricing/individual	https://www.domo.com/pricing	https://powerbi.microsoft.com/en-us/pricing/	https://www.microstrategy.com/en/go/products/request-pricing	-	https://www.tibco.com/products/tibco-spotfire/editions-pricing

Ameex framework for BI tools selection

Features and functionalities of BI tools

What are the features and functionalities of the BI tool that best suits your line of business?

For example, there are tools that are rich in graphical features with different types of graphical analysis and display; there are others that provide an automatic drilled-down Q&A type of analytical displays

Cost

- There are 2-fold options in terms of cost
  - Infrastructure cost
  - Implementation/Licencing cost

- For instance, following cost factors must be analysed
  - Should we buy a Server and host the same?
  - Is a Developer version available for developing my BI Dashboard?
  Can I perform the development online on Cloud because I want to avoid downloading and installing the tool as a stand-alone?

Security

- Selecting the BI tool that offers best level of security for my data and business

- Does the BI tool have inbuilt encryption and algorithm available within or should a separate security tool be brought and integrated

Availability of Help/Support/Maintenance

- Is there ready Help/Support/Maintenance available if I have any operational issue? (For instance, I am unable to get my pie-chart properly, is there immediate Help?)

- Are there a good number of Forums are there that may provide online Help/Support/Maintenance?

- What is the market acceptance of the BI tool (a good number of people using the BI tool reflects positive market adoption)?

- What is the position/status of the BI tool in the magic quadrant? 'Challengers / Leaders / Niche Players / Visionaries'

Few leading BI visualization tools

Let's see what the 'lay of the land' has to offer in BI visualization tools!!!

Further, as Enterprises' Big Data as well as their metrics keep piling-up, Ameex experts have mobilized details on a few leading BI visualization tools that well answer 2 of their key questions:

Which of your data facts matter most for your line of business?
What are the different ways in which they are of keen interest and importance to your business and revenue?

tableau

If you are looking for an efficient aid to interpret data, Tableau is the bull's eye you are searching for. With over 60,000+ Users, Tableau is nothing less than a "giant" of data visualization software, and is one of the best in the market. It not only has a wide reach but lets you shape your business ideas and has a pan-industrial clientele. It assists you in laying out interactive visualizations like charts and graphs in the form of worksheets and dashboards.

Key Takeaways:

Exceptional visualization capacity
Seamless usage
Exemplary performance
Hassle free integration with Amazon AWS, Teradata, Hadoop, SAP, and MySQL
Easy link sharing (social media/website)
Impressive calculations
Rapid insights
Fast changing database and Artificial Intelligence available
Productive forum and community
Mobile friendly
Wide connections to multiple sources of data.

Things to contemplate:

Slightly pricey and a few Enterprises may feel it has an inflexibility aspect as well
Difficult formatting especially columns of tables
Report scheduling and auto-refresh or nowhere in sight
Limited visual imports
With each new modification, requires manual updating for all static parameters

Is Tableau expensive?

Ameex experts feel that despite being billed annually at a substantial cost, it is worth your money for full access to all Tableau tools. Refer https://www.tableau.com/pricing/individual for latest pricing details.

DOMO

If you are in dire need of an expert business intelligence tool, then DOMO must be your blind pick. It works with all mobility devices including Tablets and iPads. Domo is a cloud software that ensures smooth integration of data, people and systems when multiple Users browse a same webpage. DOMO provides deep analytics capabilities with visualization both on the micro and macro levels.

Key Takeaways:
Offers interminable reporting capacities and visualization characteristics
Limitless data storage
Remarkable sharing features
Brilliant collaboration potential
Offers extensive data connector varieties
Real-time dashboards
Simple, direct and on the cloud

Things to contemplate
May seem hard to learn for some
May not really suit for beginner level Users
ML and NLP components are not offered
Less intuitive UI

DOMO Cost:
Based on annual subscription. Offers 3 versions- Priced differently/user/month for two versions. The starter version is absolutely free, which is quite a deal. Refer https://www.domo.com/pricing for latest pricing details.

Power BI

Power BI, the brainchild of Microsoft, is an online next generation analytics software that provides impressive features ranging from customizable visualizations to elaborate reports. It is compatible to both mobility devices as well as web based devices. It's compact design and minimalistic nature brings it on Ameex's favourite recommendation list!

Key Takeaways:

Typical Cloud-based service
A mark of affordability
User friendly
Regular upgrades
Free basic version
Wide database connectivity
Massive, interactive community with active technical interchange scopes
Perfectly compatible and integration with varied MS tools
A whole gamut of supporting documentation
Highly interactive, single-view dashboards
Users treated with a wide range of data visualization and charts options

Things to contemplate

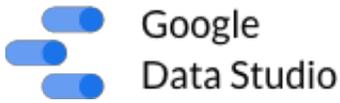Some may feel the challenge to learn
Not suitable for handling voluminous data sets
Limited access to features in the cloud version as compared to Windows version
Good intuitiveness of the interface decisions.

Power BI Cost

Two great costing plans - one, is fully free with 1GB cap for data storage. The other is Comfortably priced at a monthly rate. Refer https://powerbi.microsoft.com/en-us/pricing/ for latest pricing details.

Google Data Studio

The youngie in the market, Google Data studio aims at contending for the top spot in the market with its easy usage, creative problem-solving capabilities. And the cherry on its cake is its much sought-after ingenious dashboard sharing feature. Despite being a beta version, there is a huge bid for its efficient data processing intuitiveness. It is fully a web-based solution, all packed into a Google Analytics tool kit.

Key Takeaways
Free and unlimited access
Extremely user friendly
Easy to learn
Simplified procedures
Easily shareable
Great collaboration capacities.

Things to contemplate
Relatively inflexible
Not easily customizable
Unsupported interactivity

Google Data Studio Cost
It is free and provides full access, which we think is quite sustainable!

MicroStrategy

Enjoying a niche space for itself, MicroStratergy is seen by Gartner Magic Quadrant as nothing less than a visionary. It offers a spectrum of applications from data discovery, Embedded BI, Advanced Analytics to Data visualizations and Banded Reports and statements. It can fish out data for analysis by connecting to data warehouses, flat files, web services etc. Ad hoc query, thresholds and alerts, thoroughly formatted reports and automated report distribution are its highlights.

Key Takeaways

Seamless cube builds and deployment
Excellent cube performance in the industry
Great Slice and Dice features
Customizable data set with hierarchy definable, along with drill-up/down
Smooth analytics embedding coupled MicroStrategy REST API
SDK - Customizable analytics features, by manipulating metadata
Intensive predictive analytics facilitated by deep-dive Data Mining
Valuable dashboard features and functionalities

Things to contemplate

Support the waterfall model
Needs more agile procedures
Unstructured data set association and processing has its own challenges
Few experts feel MicroStrategy a bit expensive

MicroStratergy Cost

Refer https://www.microstrategy.com/en/go/products/request-pricing for latest pricing details.

TIBCO

A wholesome package currently trending in the market which offers exhaustive analytics with immersive dashboards. If you are looking for customizable options, we would recommend this as you can quickly create analytic apps multiple times. It offers capabilities at scale, including predictive analytics, geolocation analytics, and streaming analytics.

Key Takeaways
Great visual analytics
Customized analytic apps
Real-time streaming analytics
Efficient data wrangling
Embedded AI

Things to contemplate
Training is a prerequisite
Limited user base
Less intuitive

TIBCO Spotfire Cost
It is priced at a good deal for a smart analytics solution. Refer https://www.tibco.com/products/tibco-spotfire/editions-pricing for latest pricing details.

Looking for effective reports and dashboard building tools? Then R-Studio should end your search. R-Studio is an open source, Integrated Development Environment (IDE) for R, a popular programming language which is used for efficient statistical computing and graphics. R-Studio's features include a console, tools that aid in plotting, debugging, history and also has tools that will help in managing workspaces. One of the other popular features includes a syntax-highlighting editor that allows direct and hassle-free execution of codes. It is compatible with both desktop applications and web browsers.

Key Takeaways:
Open source
Many packages available
Compatible on desktop, remote servers and web browsers.
Exhaustive package development tools
Privacy safe
Quick and seamless navigation to functions and files
Easy integration with R tools

Things to contemplate:
Difficult to learn for beginners
Speed issues
Can't handle heavy data

R-Studio Cost
Varies according to the package. Refer https://www.rstudio.com/pricing/ for latest pricing details.

Flask

Flask is a micro, WSGI web app framework written in Python. It is one of the most famous and widely used python frameworks. It makes use of Jinja and Werkzeug templating. It is Google compatible and great for developing websites. It is developer friendly and gives better accessibility. It is easy to get started with Flask as it doesn't need you to have a boilerplate code. It is highly extensible and doesn't impose a specific directory structure on the developer.

Key Takeaways:

Exceptionally flexible

Easy to learn

Highly user friendly

Supports extensive use of external libraries and add-ons.

Create smaller apps within a brief time.

Smoothly routable URLs

Things to contemplate:

Non async- friendly

Finite features

Inadequate forms/database/ORM

Small community

Restricted documentation and support

Still Stuck in the Angular vs React debate? Chuck your confusion as we simplify it for you. Angular is a highly conducive framework for developing web applications. It is premised on HTML and allows its developers to use the same syntax to realize its components. It is great for developing single page applications and is an entirely featured JavaScript framework. It also works well to support the MVC programming structure.

Key Takeaways:
Effective performance
Seamless Routing
Flawless updates with Angular CLI
Provides total code development

Things to contemplate:
Tedious third-party integration
Update difficulties between old and new versions
Steep learning curve
Not beginner friendly
Doesn't allow extensive, all encompassing, manual documentation.
Restricted routing
Tough to debug

React

Convinced about Angular? Hmm... React is equally convincing. Time to weigh it! React is a Facebook powered JavaScript library that allows the users to create UI components. It allows greater freedom to the users to develop user interfaces that are highly interactive. It is simple to understand and launch as well. It uses server-side rendering that provides a performance-centred solution and better flexibility.

Key Takeaways:

Time-saver
Entirely backed by Facebook
Simple and User friendly
Fast performance and good user experience.
Access to third party libraries
React components
Unidirectional data binding with decent code stability

Things to contemplate:

Sophisticated configuration required for integration with traditional MVC frameworks.
Requires detailed understanding to integrate
Not much community activities
Longer installation time

WANT TO KNOW AND IMPLEMENT THE BEST VISUALIZATION TOOL FOR YOUR BUSINESS?

Ameex professionals will guide you through the steps needed to smartly blend multiple data parameters and sources, display dynamic, animated data, streaming fastest metrics support.

Ameex data analysts specialize in all best practices techniques while selecting curated visualization tools for your business

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