# DEMOCRATIZING ANALYTICS: TECH MAHINDRA VIRTUAL ANALYST

## Top Takeaways

- Companies want analytics platforms to address the AI-analytics continuum, democratize data discovery & get real-time insights
- Tech Mahindra's Virtual Analyst combines own analytics technology, BPS expertise & 3rd-party tools
- Virtual Analyst offers conversational search & automated insights for faster & more efficient analytics delivery & self-service for non-data scientists
- Sales & marketing are first adopters of analytics democratization, followed closely by procurement & customer service functions.

Ivan Kotzev
@IvanK_NH

A common theme in NelsonHall's Advances in Analytics BPS market analysis is that organizations' need to operationalize data has matured beyond BI and simple visualization. Companies do not want to wait days to build a report and weeks, or even months, to generate insights. They need to fill the AI-analytics continuum, democratize data discovery and data manipulations, and obtain (near) real-time insights. Tech Mahindra's Virtual Analyst offering aims to address all three of these tasks by employing the power of cognitive technology.
Virtual Analyst architecture

**Virtual Analyst incorporates** Tech Mahindra's visualization IP across tools and third-party NLP engines such as ThoughtSpot and PowerBI. The business model is for Tech Mahindra to serve as a reseller, solution provider, and analytics co-developer for BPS clients, where it offers its domain expertise.

Under Virtual Analyst, Tech Mahindra deploys the NLP and AI engines, and in-memory computation algorithms. It also implements a data visualization layer and distribution cluster manager. The unified platform is supported by an enterprise security and governance layer and includes data connectors and APIs to link various data sources. Virtual Analyst pulls data across sources into a single window, and business users can employ different visualizations to build customized dashboards and perform data analysis through multiple levels of drilldowns. Finally, it has the option for a private or public cloud deployment.

### Conversational search to speed up analytics
To simplify analytics consumption, Tech Mahindra's Virtual Analyst gives users the option to type a business contextual query, even parts of a sentence or key words, in the NLP engine and retrieve an analytics insight without technical assistance. The questions can be both known and unknown. At the same time, it offers clients who want to continue with the current structured visualization approach the option of predefined reports and prepopulated queries. The difference between the two ways of visualization is often in the balance between speed and independent decision making.

### Automated insights to kick start analytics
Virtual Analyst is integrated with a predictive engine to give result-oriented outputs using what-if scenarios and other advanced analytics algorithms and AI/ML models. Even if the user does not know where to start or what information to look for, the software defines some trends and patterns.

### Self-service to open analytics to non-data scientists
Virtual Analyst targets data democratization where senior executives and operational staff access the same information and can use visuals created with R scripts to perform advanced data analytics such as forecasting. It also allows the creation of persona-based insights to manage authorizations. Users can create their own customized dashboards with only the relevant insights made available at the visualization layer.

### Market opportunities
Sales, marketing and field operations functions are the first adopters of Virtual Analyst looking for easy access and queries. Particularly in the telecom, manufacturing, and retail sectors, Tech Mahindra has several implementations. For a European telecom, it gives the executives information on field operations, predictability, and viewing information based on data from multiple-source systems.
The client leveraged it to save charges raised by various contractors. Additionally, Tech Mahindra provided a probability study to identify contractors to do the work cost-effectively. Similar clients have achieved additional savings by not upgrading their existing analytics platforms.
In another example for a U.K. telecom, the CMO and every brand manager have real-time insights into campaign performance and week-on-week churn. The company marketers analyse customer details, phone usage, and campaign data from 200 concurrent campaigns and 75m monthly communications to improve targeting and reduce customer churn. The company forecasts a churn decrease by 17% year-on-year.
Tech Mahindra sees increased interest from supply chain and procurement and customer service departments. It has ~12 new implementations
of Virtual Analyst.

### Next for Tech Mahindra's smart analytics and visualization
As Tech Mahindra presents Virtual Analyst to clients, a common question is around legacy analytics investments. The provider is addressing it by running Virtual Analyst as a business layer, priced not by the traditional license model but by the amount of processed data. For example, for a U.K. local council, Tech Mahindra uses the existing PowerBI deployment in F&A for the CFO and her team and is now implementing ThoughtSpot for other council processes such as security.

Another target is to cross-sell with technology partners, going to joint pitches with clients. A recent example is a Swiss multinational food manufacturing client where the Virtual Analyst improved the back-office business processes beyond traditional ERP systems and started to provide predictive insights as well.

Tech Mahindra is looking next to leverage its design thinking and assets of its subsidiaries Pininfarina and the BIO Agency to further the possibilities of self-service analytics. On the technology roadmap, Tech Mahindra plans to integrate multiple home grown third-party tools into its BPS Recommendation Engine framework. It also plans to adopt voice command interactions to provide additional value and provide better user experience.

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