



How Healthcare Companies Can Get their Data Monetization Strategy Right



Robust data analytics and AI capabilities will empower companies to get the best out of their data, generate relevant insights, and maximize value

As per a BCG report “while many companies have high data ambitions, few achieve those ambitions. In 2019, only about 10% of companies reported that they had met the data targets set in 2016. Moreover, most were far from achieving their 2021 ambitions set in 2018.” [1]

Many companies have been unsuccessful in identifying the right data strategy that can give them sustained competitive advantage. Lack of data maturity has been a reason for this failure. To achieve their data ambitions, organizations need to focus on the impact areas based on available data and applied algorithms. Companies like John Deere, Kroger have identified their most valuable set of data using technologies such as IoT, analytics sensors etc. They have successfully used their data sets to understand their customers, and sell insights to their suppliers and third parties to create additional sources of revenue.

In this article we will explore data monetizing models, pricing strategies, and how advanced analytics platforms help in generating insights which can help the businesses get their data monetization strategy right.

Data collection strategies

Companies can use various strategies to collect or acquire data. This can include both, organic and inorganic methods.

Collecting data from customers

Using this strategy, a company can understand their customers, take decisions related to marketing, store locations, and create hyper personalized solutions. Flatiron has developed its own oncology based EMR platform by collecting data of 2 million patient records as of 2018. Lifesciences organizations use these datasets for various use cases in areas such as R&D, and clinical trials. [2]

Partnering or purchasing data

John Deere in partnership with Cornell University has created a data platform Ag-Analytics, data platform that syncs with John Deere’s operations center to access and analyze farm data) which has become a source of revenue and has created significant value for their farmer ecosystem. Using this platform John Deere performs analytics of the data and farmers use these tools for estimation, forecasting, risk management of crop maintenance, and soil health. [3]

Acquire a company

Companies that are not able to process the data or not able to get the data required from any partnerships, could go for acquiring a company. Kroger has acquired a data analytics firm 84.51°, which helps its biggest suppliers to understand the behavior of customers (60 million households) that shop at Kroger. This helps the supplier design better solutions and services. [4]

Building an ecosystem

A company that possesses a significant amount of proprietary data and can buy or partner for additional data may be able to orchestrate an ecosystem that other companies participate in. Goldman Sachs in 2012 acquired a credit reporting firm TransUnion and converted it into a data mining giant in just 3 years.

TransUnion now has a large base of data sets, it continuously analyses those data and sells it to insurers and lenders.^[5]

For these strategies to create full impact, companies need to build a data-first culture. This can be done by investing in skills specific to using analytical insights. Companies should also run change management programs to create new mindsets and ways of working, and break silos by making cross-functional teams to share data, and create new roles and governance process.^[6]

Data monetization operating models

The two main roadmaps for data strategy and monetization are internal and external. The first one focuses on leveraging company's data to improve its operations, productivity, quality of its products and services, and marketing campaigns. The second focuses on increasing the number of revenue streams - sell data as a service, sell data platforms, and create personalized products for its customers and partners.

Analytics Platform as a Service

Companies use proprietary and sophisticated algorithms to generate highly personalized insights and data. Real-time insights are provided through a platform that is cloud based or self-service. Data analytics platform Predix owned by GE provides services to customers that helps increase the efficiency of its equipment. It also provides Energy Management Systems to its commercial and industrial customers.^[7]

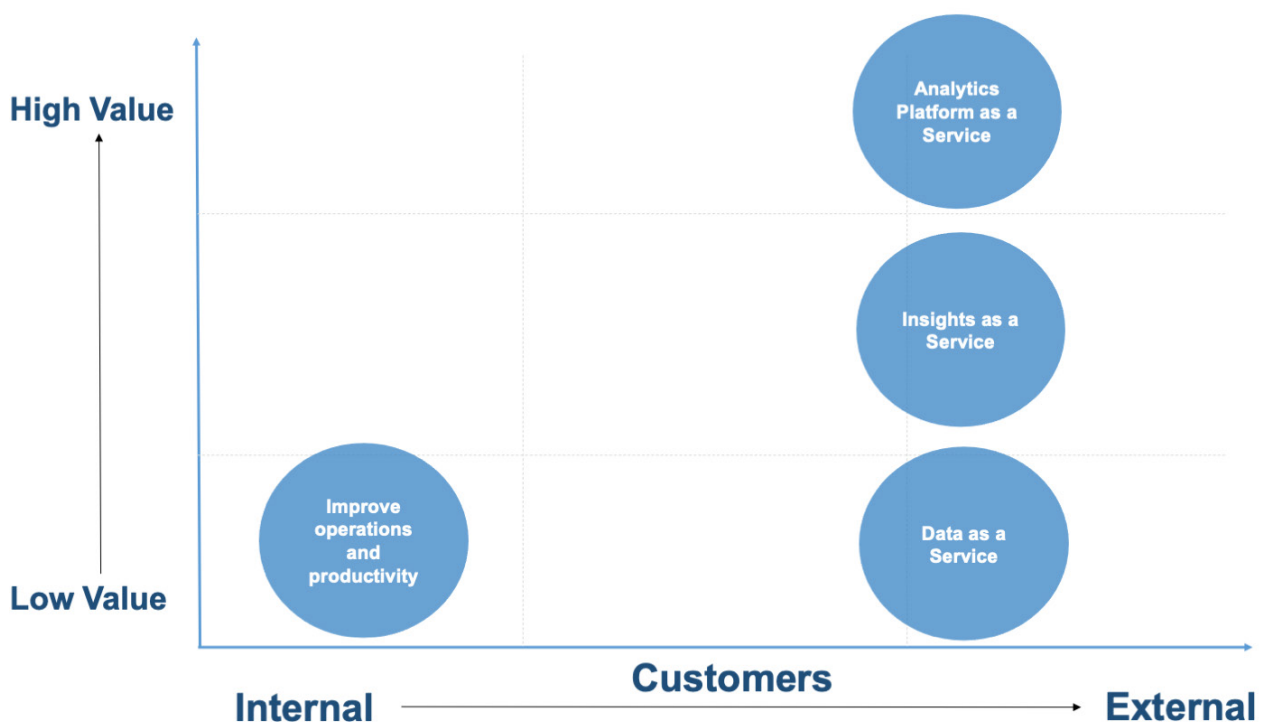


Figure 1: Data Monetizing Models and their Positioning

Insights as a Service

Companies combine internal and external data sources, apply advanced analytics methodologies to provide insights to their customers. AkzoNobel provides an analytics based iOS app to its ship operators that provides performance prediction, financial predictions, and cost-benefit analysis thus enabling them to make informed decisions. They also provide a decision support model to its ship operators enabling energy cost savings. ^[8]

Data as a Service

This is one of the simplest models where data is aggregated, anonymized and sold to partners and customers. Kroger helps consumer packaged goods companies to understand evolving habits and trends of shoppers by selling shopping data generated from their loyalty and reward cards. ^[7]

Improving Outcomes and Productivity

Companies use Big Data solutions, which help them analyze their costs, selling price, and marketing campaigns, thus improving their savings, profitability, services etc. A battery manufacturing company used data from inventory and datasets of order backlog to optimize raw materials costs, maximize selling price and increase margins. ^[9]

Hurdles in the data monetization journey

Considering the sensitivity of data, any data monetization strategy must adhere to regulations like GDPR, HIPPA, and data protection acts of respective countries. ^[10]

Consent Management

Getting the consent of consumers to use their data is the biggest challenge for companies. Companies have access to loads of valuable consumer data such as transactions, financials, and biometrics. Companies need to find a way to incentivize consumers for access to their data and make sure to handle it securely. ^[11]

Data Governance

Companies should efficiently onboard diverse set of data, ensure right quality of data in the system, have the right security in place and should be able to trace insights to the data source. ^[11]

Data Security

The most critical part is the safeguarding of consumer data. Companies should build capability in role-based masking, anonymization, encryption of data, and network safety to make sure data, be it personal or enterprise, is safe. ^[11]

Pricing strategies for data monetization

Building a successful pricing strategy is one of the vital aspects for a data provider to have a successful data monetization strategy. The two primary strategies of pricing data products are: Cost-Based Pricing & Value Based Pricing. ^[12]

In cost-based pricing, the price is determined by adding a markup to the unit cost. Vendors need to determine the variable and fixed components that will be needed to build, maintain, and deliver the product.

In value-based pricing, the value that customers derive from the product determines the cost of the product. This is not an easy task and requires many considerations and assessments. The pricing techniques that can be used are given in Table 1.



Pricing Strategies	How Wipro is helping them
Monthly or quarterly subscription with optional one-time fee.	This option is mostly used when there is continuous streaming of data. When the data is consumed at the time of origin, that's when the value is generated. Once customers realize the value, they will keep purchasing every month, which can be converted to yearly subscriptions.
Charge customers a fee to access data related services.	Companies can bundle the services with premium features and create higher priced plans.
Single purchase data product for one-time download of reference and historic data.	This option allows companies to sell customized sets of data required by their customers and charge them once. Price can be based on the features added in the product.
Add fees for advanced features.	For all the models mentioned, the organization can charge extra fees for advanced and customized features.
Value based pricing.	Charging customers based on the perceived benefits of the product or services. It can be related to either the cost savings or increase in profits for the customer.

Table 1



Winning with a solution built on data pipeline and AI-driven decision engine

An advanced data analytics platform can provide a framework that allows Data Scientists to leverage data to create value-added insights. Companies can use this kind of platform to unlock value from data across the value chain and this can become an integral part of their data monetization strategy.

It should have features like deep learning platforms, pre-built data science applications, high processing event processing platforms.^[11] See Figure 2 and 3

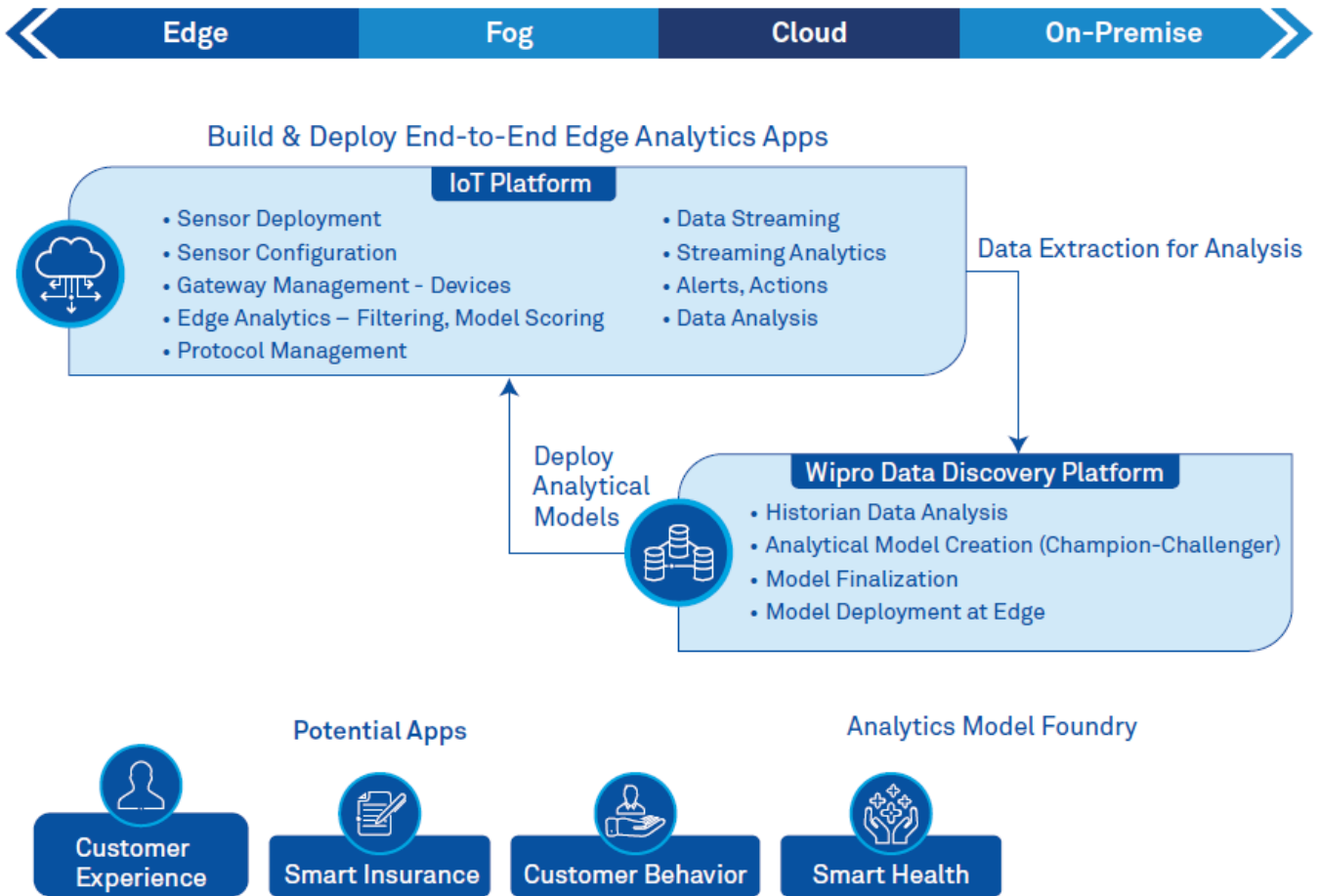


Figure 2: Advanced Analytics Platform

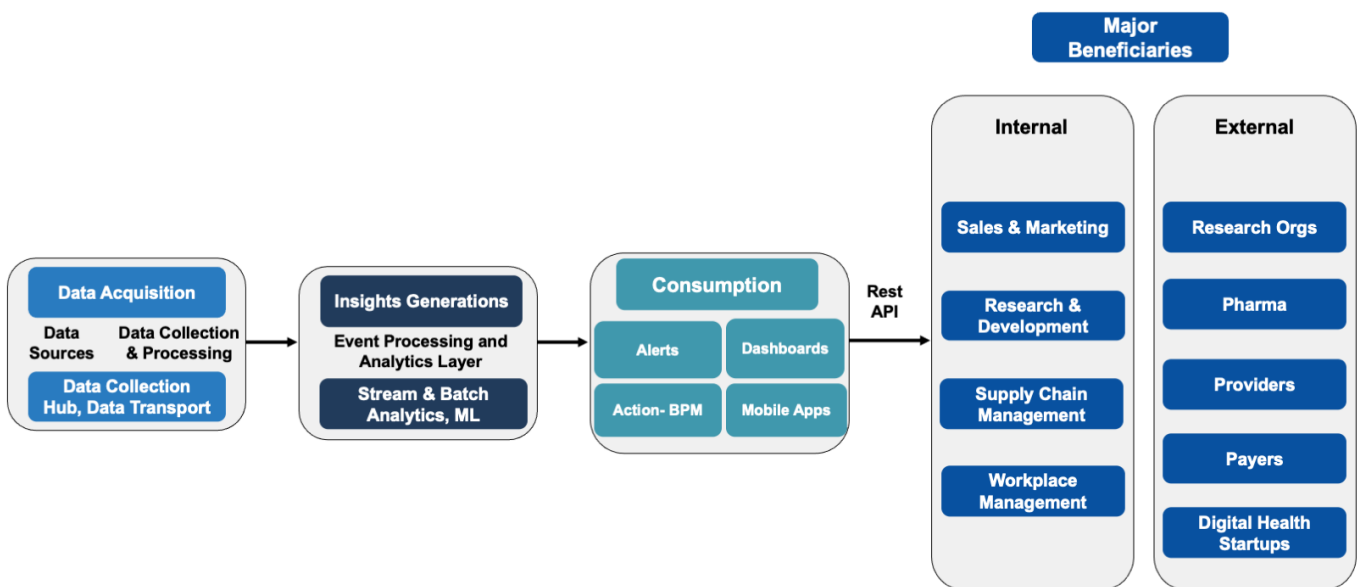


Figure 3: Advanced Analytics Platform- High Level Analytics Architecture

Potential data monetization market segments for health sector companies

Research Organizations

There has been a huge growth in the volume of data and real-world evidence. Harnessing this will provide a great opportunity to reimagine and develop new approaches to clinical development, speed innovation and improve clinical outcomes. Leveraging a robust big data analytics platform will enable companies to take advantage of data. Using advanced analytics methods such as machine learning and predictive modelling, data scientists of IQVIA are able to provide insights and predict challenges before they occur. ^[13]

Innovators

Data sets in pharmaceutical innovators pose a challenge for analytics programs due to their complexity, density and diversity. To overcome this challenge, innovators can use robust data analytics platforms, for instance, through strategic partnerships that will enable them to improve efficiency, and clinical outcomes. Roche acquired Flatiron, an oncology based data platform that captures data from hospitals, health centers and generate insights from it. This will enable Roche to leverage data to boost its capability in R&D, and drug development. ^[14]

Providers

As the trend of patient-centric approaches for healthcare keeps increasing, the providers need to align accordingly. With increasing complexity in surgeries like robotics, providers will need to have a robust data analytics platform to cater to image data, patient data etc. Advanced analytics models need to be deployed to have better accuracy and efficiency in surgical performances. With the help of advanced analytics using business intelligence platform, Western Maryland Health System was able to reduce the cost by 78%. They were able to generate valuable insights from their patient data, which resulted in cost savings of \$112,000 over 6 months. ^[15]

Payers

With the industry moving from volume-based care to value-based care, payers are faced with challenges to shift their business models. Payers will need data analytics tools to overcome the challenges and enable better revenue recognition, new payment models, better options to patients, and fraud detection. Oscar Health is using data to help its customers increase their awareness about care they are receiving. They are able to help the patients with better choices of doctors using better pruning mechanism. ^[16]

Data as a Service

Digital health startups are increasingly using data to devise their product offering. They are well positioned to cater to the ever-changing consumer behaviors due to their agility and smaller size. With the help of data, they can provide more predictive healthcare offerings, detect disease outbreaks, and personalize offerings. A digital health startup Medopad has developed an app that collects data from wearables, mobile devices, and medical bodies and analyzes those data to prohibit chronic disease. ^[17]



Internal beneficiaries

Companies can benefit in various functions internally in terms of cost savings, improving efficiency, and optimizing operations.

Sales & Marketing

Sales & Marketing divisions can use analytics platforms to focus on reducing infrastructure costs, and maximizing sales outcomes.

Enterprises can look at adopting cloud based Big Data platforms to accommodate their customers and vendor base. A global pharmaceutical and medical device major was able to achieve a savings of \$1.5 mn from campaigns by using high performance Big Data platform. ^[18]

Supply Chain & Operations

The need to manage product, customer and vendor, clinical and research data is extremely critical to the pharmaceutical industry. Companies can look at building a data management platform that can transform their sourcing and procurement function. A global pharma major was able to reduce cost by 25% in operations through master data management lifecycle solutions. ^[19]

Workplace Management.

Data analytics can offer many gains in the area of workforce management like using data

analytics to determine the payroll of employees based on KPIs and workload management.

A leading US retailer was able to increase customer satisfaction and \$100 Mn in savings with the help of predictive analytics used for store labor optimization. ^[20]

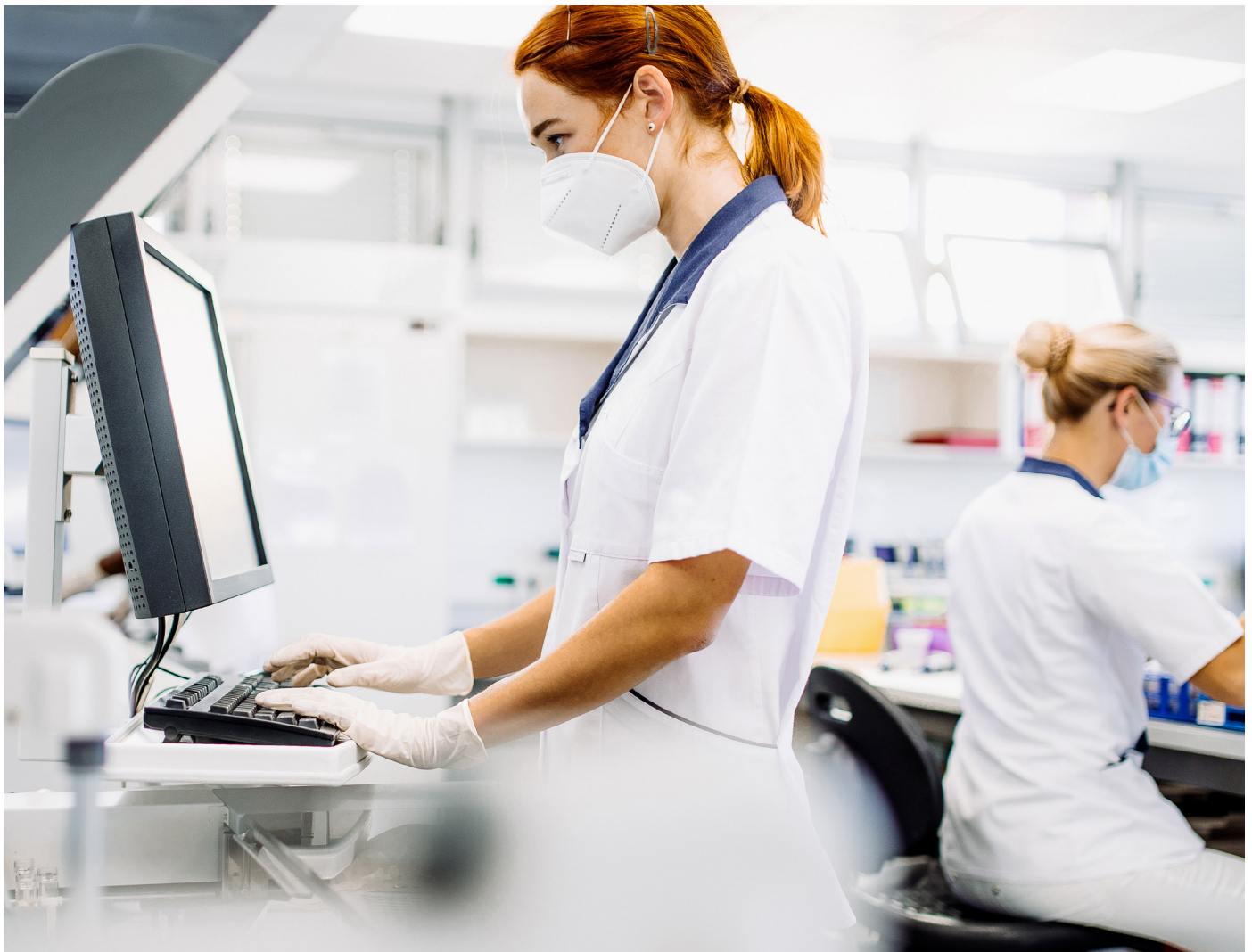
Reshaping healthcare with data monetization

As the volume and complexity of data keeps increasing, there will be ample opportunities for companies to monetize their data. Companies in the health domain can leverage their data to gain advantage by improving the efficiency of their own business unit and/or by selling services using the data. To overcome the complexity and regulatory challenges of data monetization, companies will need to have robust data analytics and AI capabilities, which will enable them to tackle high volume of data and empower them to generate real-time insights for their ecosystem of partners and customers. value-based pricing, the value that customers derive from the product determines the cost of the product. This is not an easy task and requires many considerations and assessments.



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