

FRAMING A WINNING data monetization strategy

At many forward looking organizations across the globe, an immediate and evolving new front of competitiveness, data monetization, is being added to the C-Suite and Board agendas.

Highly competitive and innovative companies constantly seek new competitive grounds and explore new paths to success. The recent advent of the technological advancements in Big Data and analytics has paved the road to a new era of competitiveness; an era where data is viewed strategically and as a living and evolving asset, an asset that can unleash new opportunities for monetization.

The use of data and analytics to enhance decisions is not new or novel. The new frontier is exploiting and monetizing data in a coordinated and organization-wide manner to strategically advance our competitive advantage; a strategic goal that demands a strategic approach and framework.

This document offers a dynamic framework for developing a winning data monetization strategy – a framework that considers the varying data sources, offers a process for recognition of value, presents applicable business model options, explores commercialization alternatives and points to the various challenges to be addressed.

Foremost, it **IS NOT** about information technology or business intelligence.

Data monetization is about effective and timely exploitation of an ever-growing new class of asset, the enterprise data, and converting that asset into currency (profits) by increasing revenues or decreasing costs. It is true that this asset (data) is generated through deployment of technology; however, monetization of this critical asset is most definitely a business challenge. Technology will help collect, store, and deliver the data; advanced analytics will help explore the data and discover strategic and transactional value. But it is a sound strategy, followed by an effective business model, which helps the enterprise focus on creating value from data and analytics, effectively monetize the asset and create a competitive advantage for the enterprise.

Business intelligence (BI) solutions, tools, and dashboards that deal with packaging and visualizing historical performance data to support decisions are hugely valuable to the day to day management of the operations. An effective data monetization strategy is however not about tools, the underlying technologies or the tactical management of the enterprise. As an analogy, if we view BI tools and databases as the pipelines and the data as the electricity that flows through it; although an effective pipeline is important to delivering electricity, it is the electricity that is monetized (sold) and not the pipeline network.

Data monetization strategies are indeed influenced by technological capabilities of an enterprise, however the starting focus for strategy formulation should be on defining the value to the enterprise, the value to its customers, and the potential value to third parties in its immediate or adjacent industries.

It is about monetizing data or transforming this corporate asset into currency, profits, and market advantage, and not about optimizing servers and databases, data mining, or dicing and slicing past performance information to support tactical decisions.

Principally, it **IS** about how you look at the enterprise as a LIVING entity and data as an asset.

Unlike most corporate assets, data is constantly evolving, and it may be both appreciating and depreciating simultaneously. While historical data may lose value with respect to short cycled transactional opportunities, it may be gaining value from a trending and long cycle strategic perspective. As an organization operates, it generates data. And as its environment and competitors interact and evolve with each other and with customers, more and more data is generated. A framework to effectively monetize this constantly changing asset (data) must recognize the dynamic nature of the asset. The monetizing assumptions and plans should recognize and be responsive to the constantly growing and changing nature of data as well as how it may be generated and consumed.

A key step towards recognizing the evolving nature of this fluid, dynamic, and ever-growing asset is to appreciate that the organization that generates this asset is also ever-changing and growing. An enterprise that can be viewed as a LIVING organism. An entity that consumes cash and produces services/ products, profits/losses, and waste. Its soul is its culture. Its nervous system is the measurement and communications network overlaid upon it. The synapses and data contain signals of opportunities, risks, performance, and efficiencies from across the body of the enterprise and from its environment. As a "LIVING" entity, the enterprise needs a "living" and exertive strategy that is adaptive to the challenges it constantly faces. The evolution of a living entity and its mutation towards an improved being is a function of how quickly it can sense and respond to danger (i.e. capture the data, analyze it, and extract actionable insights from it), as well as how fast it acclimates to new sets of challenges (i.e. finding an improved focus for the strategy and a responsive rhythm in execution).

To effectively strategize around leveraging data to its advantage, corporate leadership should recognize the fluidity of data across the enterprise, data's ability to connect the enterprise together, and the embedded value contained in the signals it may carry. Other factors to consider are data's ever-evolving and changing characteristics, and its ability to create value as the context of the evaluation shifts or when placed alongside other data (internal or external).

So, what is DATA

WIONETIZATION
all about?



An enterprise that does not effectively utilize its data assets can be compared to a living entity with a broken nervous and sensory system. A living enterprise that suffers from compromised abilities to hear, feel, see, and smell the dangers and opportunities around is vulnerable and disabled. The lack of a working nervous system that can help the brain make the right decisions at the "right" time leaves a living entity exposed. The return on data, this unrecognized asset on the balance sheet, is a superior competitive position that can be shaped based on the intelligence and insight it offers the enterprise. In the new era of Big Data, this asset can potentially provide a very differentiating competitive advantage.

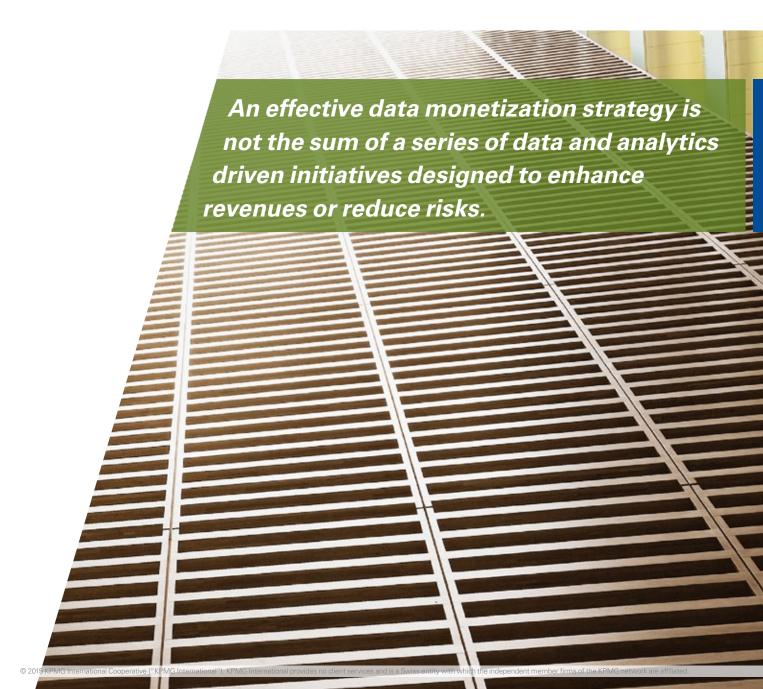
When arriving at the value of any piece of machinery one considers utilization; when evaluating liquid assets, one considers the annualized returns; when pricing real estate assets, one accounts for occupancy rates as well as maintenance factors and market dynamics; when assessing value of inventory, it may be a function of market or a rollup

of material and labor and indirect costs; when valuing data, one must not only consider the use case, but also factor in freshness, its value when connected to other data within or external to the enterprise, the evolution path (does the value increase over time), etc.

This dynamic and evolving view of an enterprise is the foundation of the Exertive Strategy Concept (ESC), a conceptual perspective that facilitates the formulation and execution of dynamic strategies that are powered by data analytics. It is an approach that leverages the data assets within and external to the enterprises, recognizes the continuous shifts of the competitive forces and the ecosystem, considers challenges of execution across the value chain, and examines effectiveness from a "connected enterprise" point of view balancing growth, risk, and efficiency. Data Monetization strategies are most effective when conceived through an Exertive Strategy Concept lens and executed with a dynamic framework and mindset.

Fundamentally, it **IS** about enhancing competitiveness, achieving clear differentiation, and making MORE money.

What's your business model?" or "How do you plan to make money?" is a fundamental question that must be addressed as we begin to shape an effective data monetization strategy. **Thinking about various possible business models often is an excellent starting point to frame the alternatives available for monetization.** This initial organizing filter provides the ability to categorize the monetization alternatives and distinguish the ultimate applications. It can help answer questions such as: "Is the definition of monetization selling data to external buyers?" or "Are we defining monetization as better use of the data assets to improve our transactional performance in customer acquisition, fraud detection, and loss control?" or "Are we using the data to differentiate our products and services which would lead to brand loyalty?" or "Are we helping our customers with benchmarking data, improved experience, and possibly premium services?"



There are four commonly applied business models for monetization. Often, a comprehensive data monetization strategy includes deployment of multiple business models in order to effectively serve specific internal constituents and/or external customers.

A. Return On Advantage Model

Most of today's enterprises apply data analytics and define data monetization, through a "return on advantage model," where an organization uses its internal performance data, and at times triangulates with external demographics information, to create an advantage for the enterprise. Common examples of this business or monetization model include initiatives centered around:

- i) Customer targeting: using purchase patterns to identify product and buyer clusters that have an affinity to purchase more or are at risk of going to a competitor, as well as identify opportunities to cross-sell or up-sell, and possible modifications to online content delivery to improve conversion. The monetization in this case is to gain an advantage over competitors by selling more of the same or compatible products more effectively, and the return on that advantage is realized most often when revenues are increased or margins enhanced.
- ii) Risk mitigation and fraud detection: using patterns of system access and purchases mapped against external credit data and geo data to identify what the characteristics of the risk prone accounts or situations are, and then discovering who those customers are today or profiling potential customers coming in that would fall within that population. Additionally, based on patterns, identifying specific fraud opportunities or fraudulent events in progress. The monetization in this case is to reduce loss and all the operational cost associated with it all the way through the value chain, therefore creating an advantage over competitors and generating a return on the data assets.



B. Premium Service Model

Achieving monetization through a "Premium Service Model" requires the data to be processed or transformed to the point of end-user consumption, with the value proposition crystallized and the value exchange formula well defined.

Most often a premium service model includes delivery of value to end users through software as a service (SaaS) mechanism or interface; where the customers can access the data products via a portal in exchange for a monthly or annual subscription fee. Examples of this model include health or sports performance information aggregated through wearable devices (e.g., Nike fitness monitoring device) are provided back to customers for an additional fee. Telecommunication companies providing the individual usage information back to the user via mobile devices, or aggregated usage data to another business for a fee to access privatized data through a site/portal may be another example of monetizing through a Premium Service Model. Under this model, the data is monetized through a fee based premium (a level above normal) service to direct customers or by a subscription fee paid by other interested parties (none-direct customer) accessing a service portal. Monetization under a standard premium service model is usually fee-based online access and returns are directly linked to incremental revenue generation.

C. Differentiator Model

The "differentiator monetization model" is utilized where the return on the data asset or the means of monetization is the differentiation gained through delivery of the data or derived benchmarks for no additional fees to the customers in order to secure their loyalty. Under a differentiator model the delivery of service or value to the customer may be similar to a premium service model, the fee, however, is set at zero to negligible to customer. Monetization under a differentiator model is basically through building brand loyalty or developing compelling value add services that may serve as switching barriers. In other words, the customer receives the additional or premium service without paying for it, in anticipation that the said additional services will differentiate the company and somehow enhance the brand or create loyalty, leading to a monetization scheme that is difficult to measure and clearly quantify.

D. Syndication Model

A "syndication model" is often used where data in a transformed manner (usually not raw data) is delivered to third-party entities. They would then use it for their own analytics purpose or for research in their various planning activities or product/service development efforts. The client/buyer can sign up to receive a syndicated data feed (raw data delivered via some sort of digital means—e.g., API) or preassembled reports. The data asset owner is monetizing through recurring income-generated transactions from selling the same set of data over and over or by selling reports on a recurring or ad-hoc basis. For example, most research organizations (i.e. IMS, Neilson, NPS, and IRI) follow this monetization model

And, it **IS** about framing the value our data contains, balancing the expanded view of opportunities with a laser-focused perspective of tactical value delivery options.

The journey from raw data to insight is not a straight line. The trip requires an inquisitive mind and a disciplined approach: inquisitive, so that side roads may be explored and relationships that are not obvious can be discovered; and disciplined, so that one does not get lost along the way. **As you explore building your data monetization strategy and approach, there are four Critical Discovery Concepts**that deserve special attention. The critical discovery concepts of Aggregation, Triangulation, Privacy Preservation, and Frame of Reference help to expand perspective and explore data assets independently or in conjunction with other external or third-party data in order to discover compelling value.

Critical Discovery Concepts

AGGREGATION

Analyses of aggregated data are most often central to the identification of key data analytic signals. Patterns, shifts, pivots, and anomalies become crystallized and observable where data is aggregated by various dimensions and explored from different perspectives or frames of reference

TRIANGULATION

Powerful technique that facilitates validation of data and verifying insights through cross-verification from two or more sources. New data sources may be created with this method, including a "1+1=3" greater sum phenomenon that is achieved when data is combined and correlated in unique ways

FRAME OF REFERENCE

The insight that can be extracted is a direct function of the perspective of the comparisons and exploration that is applied to the situation. Look at a coffee cup from a direction and you may see the logo of the store. Turn it or change your frame of reference, and you may see the name of the individual who ordered the cup on the other side. Changing your frame of reference adds to the depth of the insight that can be considered.

PRIVACY PRESERVATION

There needs to be a balance between risk control and value preservation. Often tactical data monetization initiatives struggle when data privatization factors are considered. This dilemma is amplified when data monetization is treated as only a "transactional" driven opportunity. Broadening your view may help discover high value opportunities with reduced risks

To create focus, it is important to categorize (filter) the type of value we aim to deliver to user/consumer/ buyer by the nature of their contribution. **The additional value contribution filtering often helps fine tune the monetization strategy and further focus the value proposition to users.** The clarity of the ultimate value contribution (purpose of use) provides an important context in defining what the exchange rate is between an organization's data driven products and the value they have for either internal or external users—the critical exchange between value delivered and the level of acceptable monetization.

There are two main Value Contributors:

- i) Performance contributors, where the purpose of value delivery is to contribute to and help improve performance (i.e. the organization, its clients, or third-party buyers) through applications such as benchmarking or constraint-based optimization that can be grouped by risk, growth, and efficiency implications. Performance contributors generally offer value through answering the question "how well are we doing?" and analytics driven and most likely industry centric context (e.g. Benchmarks) to the "compared to what?" paradox.
- ii) Predictive contributors, where the data delivered is designed to be a predictive signal and intended in general to be used as an input to another model or a guide for more qualitative decision making process—such as weather data and its use in retail sales prediction applications, or an individual's driving data captured through signals coming from a connected vehicle impacting his/her insurance rates.

The performance contributors focus on the "compared to what" questions. For example, the data provided to external third-party buyers or customers that address how the organization, or its customers, are doing with respect to certain key performance indicators such as collections, network coverage, quality measures, etc.—a benchmarking view with targets and cross-industry performance metrics. The Predictive contributors, on the other hand, deal with capturing and delivering signals that point to an outcome—defined or measurable KPIs that lead other important outcome variable. The monetization value of the contributors and the use widely varies by changing the customer group (to whom that insight or data product is delivered to). For example, a leading indicator to retail sales on store level may have a value of X where a leading indicator to specific retail indices or company stock prices may have a value of Y. In other words, application and use case of data products impacts the value and hence the level of monetization.

Therefore, another important layer of evaluation or perspective to consider as you shape your monetization strategy is the "Delivery Focus" from a perspective of market and use. The delivery focus provides an added dimension to timeliness needs, to privatization requirements, to level of aggregation, to the extent of data reusability and buyer propensity to buy, and ultimately, to the price versus value equation. This perspective is particularly important when external monetization of data is contemplated.

In addition to internal use of data to gain a tactical advantage and offering data products for a fee or as a differentiator to our direct customers, it is critical to explore commercialization through a vertical, horizontal or cross markets value delivery focus:

1

Vertical value delivery, where value is delivered and data solutions are tailored to specific industries (e.g., prescription data for the pharmaceutical companies).

2

Horizontal value delivery, where the same set of data products may be valuable in similar form and format to various industries with similar needs (e.g., economic indices and indicators are used to project retail sales also used for real estate pricing).

3

Cross-market value delivery, where data that is collected for one purpose in one industry is valuable for another purpose in another, often adjacent, industry (e.g., good driver signals captured from vehicles and used for insurance pricing is also valuable for pricing car lease rates).

And, it **IS** about being inclusive without boiling the ocean.

"There is way too much data to consume, it is coming fast and from too many directions, hard to digest" are very valid concerns most executives offer when considering a data monetization initiative. As a consequence, most folks quickly sway towards the famous "low-hanging fruit" and risk converging to the lowest common denominator of value.

Yes, it is absolutely futile to boil the ocean of data, but a systematic approach can help organizations explore without exhausting their resources, and converge towards alternative data monetization opportunities, based on value delivered to organizations and their customers, as well as to potential external buyers (if that is a viable monetization scenario).

The first step is to recognize the types and sources of data to work with – essentially the raw material needed to extract value from.

There are generally four types of data to be considered:

UNSTRUCTURED INTERNAL

(e.g., customer relationship management textual data as well as maintenance logs, and emails)

STRUCTURED INTERNAL

(e.g., financial, production, distribution, sales and delivery adoption rates, clicks and conversion data)

UNSTRUCTURED EXTERNAL

e.g., news, analyst reports, blog and social media data)

STRUCTURED EXTERNAL

(e.g., syndicated industry data, as well as demographics and public market performance)





The next step in this journey of converging to compelling value is to organize the data (or signal source) based on the manner they glue the organization together or connect the organization to its environment (data buckets):



These data buckets can also be classified as Internal Performance Data, Customer or Client Generated Data, and Collaborative Public and Privately Sourced (acquired) Data.

It is the interaction of these signals (information hidden in data) that ultimately point to insights or value that can be monetized either by the enterprise, by its customers, or by other third-party buyers.

Before an exhaustive but very focused and time-bound/resource-bound exploration can be initiated, it is also critical to map the available data and the sources to the value chain and explore the interconnections. The basic thesis is that data and the signals hidden in it connect the organization together—the nervous system of the "living" enterprise that carries the signals of opportunities and risk.

The systematic approach to identifying data sources, classifying them based on impact and contribution, and overlaying them on an organization value delivery map (the data genome map) provides the foundation for converging to high-value monetization strategic scenarios.

Too often, there are technology-related challenges that act as roadblocks to obtaining the helpful insights that could lead to an improved competitive position or effectively monetizing data in a timely manner.

Some of the typical Technology Challenges include:

- **Data overload**, and having data that is too widely distributed are common impediments to data monetization initiatives—an organization waits for the new infrastructure and compromises on possible competitive opportunities.
- **Data access**, from a consistency and formatting perspective, is also a common roadblock. Similarly, there is the challenge of getting the right data, in a format that is consistent and useful. If gold were easy to mine, it would not be so valuable but, incrementally accumulating wealth from our data assets is a viable option as well.
- **Data cleansing** is a never-ending challenge that will exist as long as an enterprise creates new data or essentially as long as it exists. This is a challenge that is even more articulated in the era of unstructured data. Getting insightful signals begins with the quality of the data. However, the reality is that we don't control all the data sources and data tends to get contaminated along the way.
- **Data scalability**, is critical not only from collection and storage (warehousing) perspective, but also from speed of digestion and processing, access and security, as it is gathered, stored, consumed and last but not least delivery to end user customers (internal and external). Challenges that are real and grow as data gets bigger (volume) and more complex (variety and velocity).

The keys to success are: 1) recognize that these issues are not just yours (the misery-loves-company argument), 2) those who find a way to go around or overcome the challenges faster have a real opportunity to enhance their competitive position through monetizing the data, and 3) an enterprise is a living entity competing with others in an ever-changing environment, where today's perfect solution is most likely the imperfect solution for tomorrow. Recognize that you will never have perfect data, complete data, enough time to be exhaustive, or the perfect monetization model. Although a plan for data monetization may be revolutionary, execution should be evolutionary and focused on incremental value creation guided by an overarching data monetization strategy.

In short, technology and its inherent and ever-evolving challenges may influence our perceived capabilities, but should not define our strategies and the dimensions of the competitive advantage we can gain through data monetization. Data monetization is a strategic business initiative and not an IT project.



And, it **IS** about the enrichment road map, the evolving asset value, the capture and dissemination economics, and a lot more.

In the process of developing an effective data monetization strategy there are a number of other factors that are important to consider. **The non-technology-driven challenges and factors to consider include:**

- Enrichment road map: Data is perishable and in a living corporate environment its value fluctuates. It is important to examine the road map for keeping the data fresh and the analytics relevant. Embracing a continuous discovery mind-set is also critical to finding the unknowns that lead to value recognition and enhanced monetization. Additionally, as the monetization strategy is formulated, it is critical to fully understand how the data is captured (online, mobile, from the Internet of Things or devices, etc.) and how it could be enhanced or enriched. The aim should be to actively and continually increase the value of data assets.
- Capture and dissemination economics: Like any other product, there is a cost to the raw material, a cost to add value, and a cost to deliver and support. There is a cost to capture the data in the right form and format, and a cost to perform the right level of analytics to cure the data to the point it can be monetized. These costs, alongside the cost to disseminate the data to the point of use or purchase (if data is being sold to external sources or commercialized) should be evaluated against the contemplated return as well as consistency and replicability of those intangible or tangible benefits. The big difference between a focused analytics exercise (rather common in any planning or evaluation initiative) and data monetization is considering recurring income or benefit in the evaluation of value.
- Network effect & natural barriers: When the focus of the data monetization strategy is around third-party sales and/or delivery to our clients, it is critical to consider the potential network effect. For example, if a development company is using real-estate valuation data from a data provider and has built predictive or evaluation models around that data, it is extremely difficult for them to switch to a different provider. Another example may be TV rating data used by every studio, brand, and advertising executive—the prevalent use by one industry has persuaded the rest of the industries connected to that industry to also rely on the same data, therefore creating a network of users that cannot easily switch to a different data provider, building natural competitive barriers to entry.

- Asset value determination/tax and financing implications: An important but often ignored factor in monetizing data is the potential complications and opportunities that can be faced or explored by treating data as an asset (particularly if it is packaged to be to be delivered as a premium service to direct clients or syndicated to third-party buyers). Are there any special treatments required in revenue recognition? How would you treat the asset on the balance sheet? Are there tax implications with respect to syndication or SaaS models? What are the challenges with global distribution?
- Partnerships & organization structures: There are two critical partnership paths when it comes to executing an effective data monetization strategy.

First, the "data collaborators" who add value to the organization's data in order to increase the ultimate value to the end user. Examples of collaborators include research companies that provide data series around consumer demographics, spend patterns, drug use, specific markets like consumer goods product purchase patterns, etc. By combining our data with theirs, in most cases the value of the combined or triangulated data increases. If the monetization is entirely internal, you can consider these partners as data providers or data vendors. These partners become data collaborators when some sort of business relationship such as revenue share is considered in formulating the economics of the monetization alternatives (if the data is monetized externally). The next set of potential partners act as distribution channels. Oftentimes if an organization is not in the business of externally monetizing data, it might be appropriate to use third-party players who have established channels within a particular industry to act as the distribution channel. For example, an organization may be able to create certain indices that may be valuable to the stock market and to those who are in the hedge fund business; Unless their entity is prepared to develop an organization around sales of data with the proper performance framework and organization support, it might be an easier go-to-market strategy to utilize channel partners that sell other kinds of data, such as derivatives or bond information, to the same market.

Finally, it **IS** about prioritization, culture, and commitment, as much as it **IS** about a systematic approach.

There is more to formulating an effective data monetization strategy that delivers sustainable competitive advantage than hiring a few data scientists and using data to improve sales and marketing performance.

Framing an effective strategy begins with an understanding of the living nature of an organization and the data that resides within it, continues with an acknowledgement that data monetization is not an IT or business intelligence focused activity and that the process like any other strategy formulation and execution effort should help the leadership narrow its alternatives and develop an enterprise-wide focus on the most compelling and achievable competitive advantage.

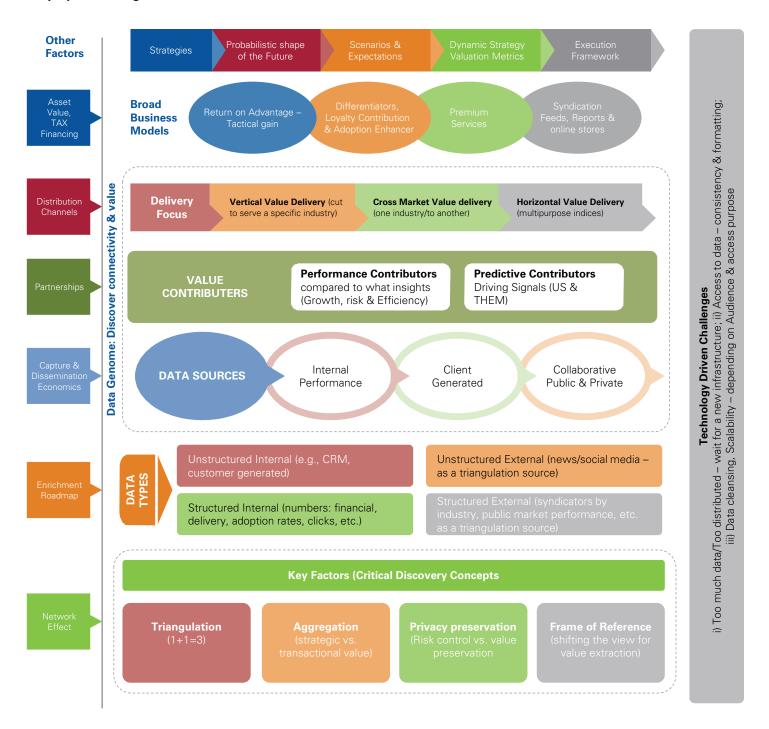
Formulation of strategic alternatives or data monetization scenarios begins with a first level ideation process, where technology, business and execution factors are considered in a systematic manner. As the key considerations are captured and evaluated a prioritized set of alternatives surface for further consideration. The diagram below depicts an approach to ideating, documenting and evaluating monetization scenarios across various dimensions. The ideation and prioritization process is a must-do activity that helps us narrow the art of possible to the domain of feasible and high probability; the domain of ideas that deserve further investigation.

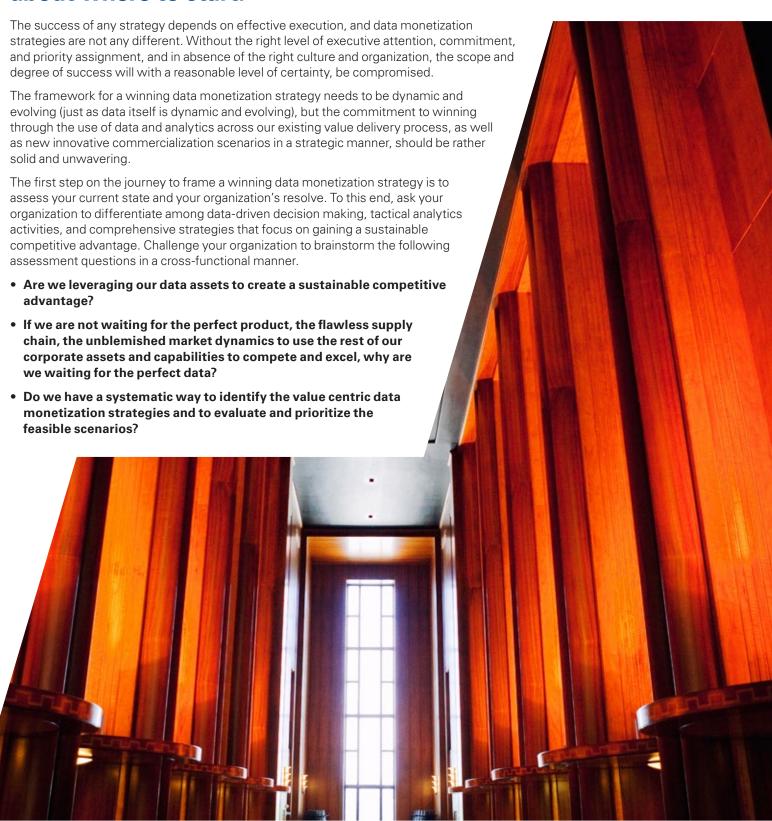
Data Monetization Scenarios



In summary, an effective data monetization strategy is constructed on a fundamental belief that data is an evolving asset and as such requires a more dynamic and evolving framework for monetization. Where monetization is considered the transformation of an asset (data) into currency or profits, the definition of currency or profit may vary depending on the business model to adopt; ranging from capitalizing on a tactical advantage to reaping the benefits of being differentiated in the market and creating a barrier to entry, to offering premium services impacting revenues or commercializing some variations of our data though syndication. An effective data monetization strategy should consider the expanded data products or monetization opportunities by exploring

The diagram below provides a graphical representation of the various factors and perspectives to consider as you shape your strategies.





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