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Derive real value from analytics

**Align your business strategy to a
value-driven analytics framework**

Abstract

In 2007, Tom Davenport's book *Competing on Analytics: The New Science of Winning* spawned a discussion across boardrooms all over the world. With the growing volumes of data and the desire to leverage this data to derive insights – which skeptics thought could never be known – businesses all over the world were sold on the power of analytics.

Time-warp to 2017, exactly a decade later. In a recent discussion, MIT researchers polled 150 data-sciences experts and asked, “How many of you have deployed and/or used an analytics model to generate value, and evaluated it?” the response was NONE.

- 1 Does that mean that the analytics bubble has burst?
- 2 How do we derive measurable and impactful value out of analytics investments?
- 3 Is there a guiding framework which can help organizations derive transformational business value using analytics?

In this paper, we answer these questions and introduce Nagarro's **VALUE driven ANALYTICS** framework which provides a well-defined approach to ensure that organizations derive transformational business value from their analytics investments.



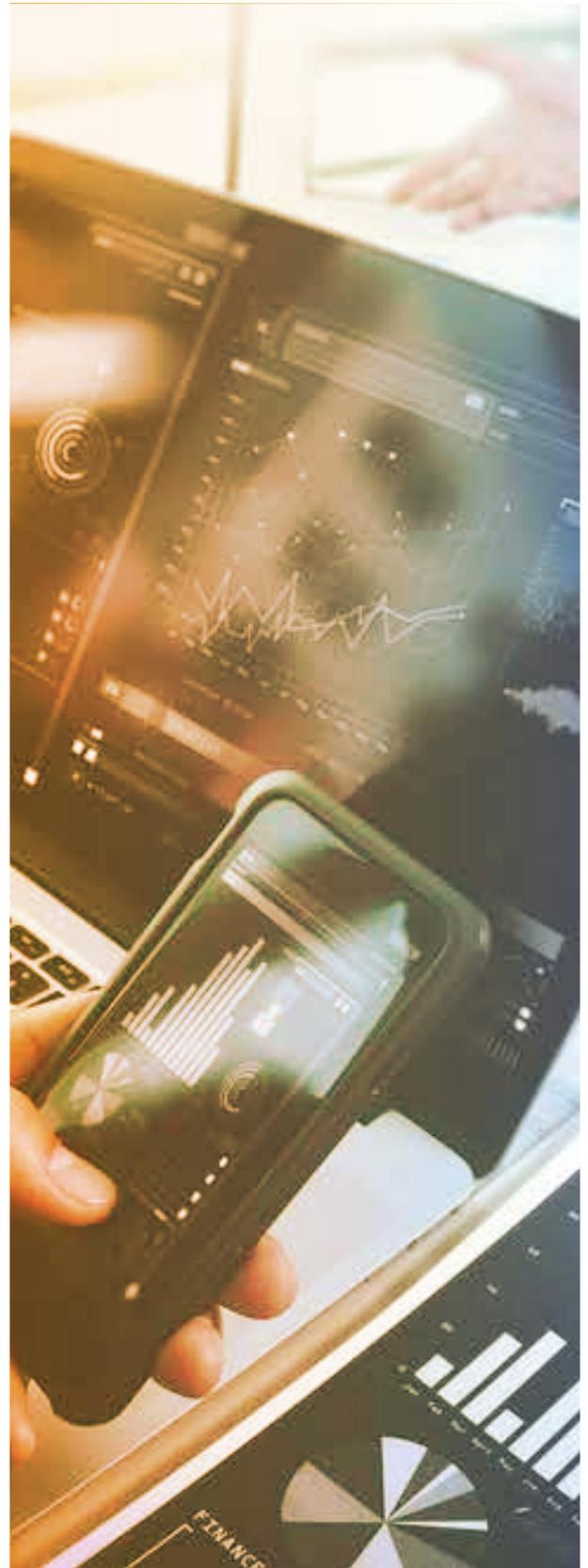
1 Has the analytics bubble burst?

Not at all, far from it. The potential and instances of how analytics is transforming the way we live and do business are all around us.

However, most businesses are able to leverage only a fraction of the potential value from data and analytics. The biggest barriers they face in extracting value are organizational. Many businesses struggle to incorporate data-driven insights into day-to-day business processes and most struggle to derive a measurable ROI from analytics initiatives.

What is required is to put business value before analytics and start with the premise – What problem do I want to solve? Or as a corollary to this question - What business value will I derive out of analytics?

To that end, let us define business value from analytics.



Business Value Transformation

Business value from analytics can be envisioned across four key dimensions:

Value of data

Transforming and monetizing data from raw data to insights to the decision and finally actions.

Business process transformation

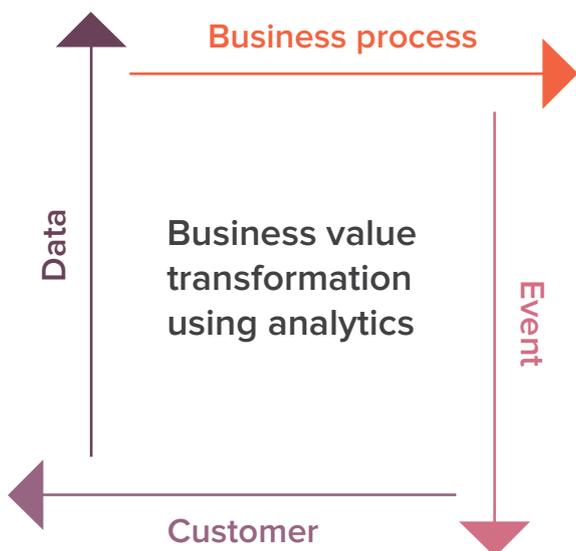
From a business process centered to an analytics centered process, analytics is embedded into everything.

Event driven action

From reactive action to customer, risk and operational business imperatives to intelligence driven proactive actions.

Customer expectation

Anytime, anywhere interaction that is personalized, contextual, and omni-channel.



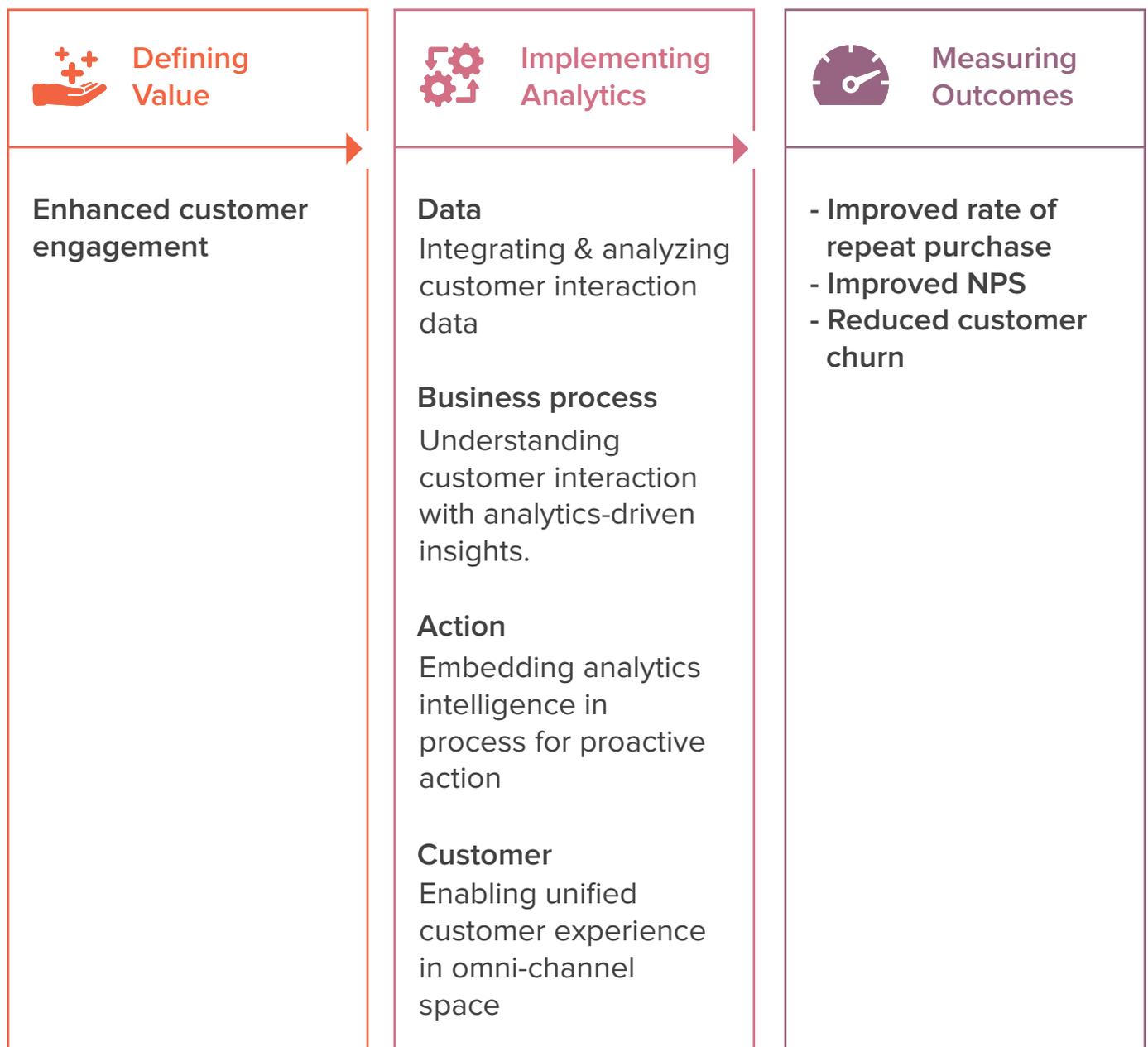
Organizations have to delve into all these dimensions to:

- Define **VALUE**
- Implement **ANALYTICS**
- Measure **OUTCOMES**

2

How do we derive value out of analytics investments?

The **Value-Analytics-Outcomes** approach into analytics and business transformation initiatives will provide measurable outcomes. In the following example, let's illustrate how this approach plays out in deriving business value transformation in a customer engagement initiative.



Is there a guiding framework to help organizations derive transformational business value?

An effective analytics driven business transformation strategy needs to be viewed through the prism of our proprietary **VALUE driven ANALYTICS** framework (Fig.1) which breaks down the transformation strategy into 6 key components.

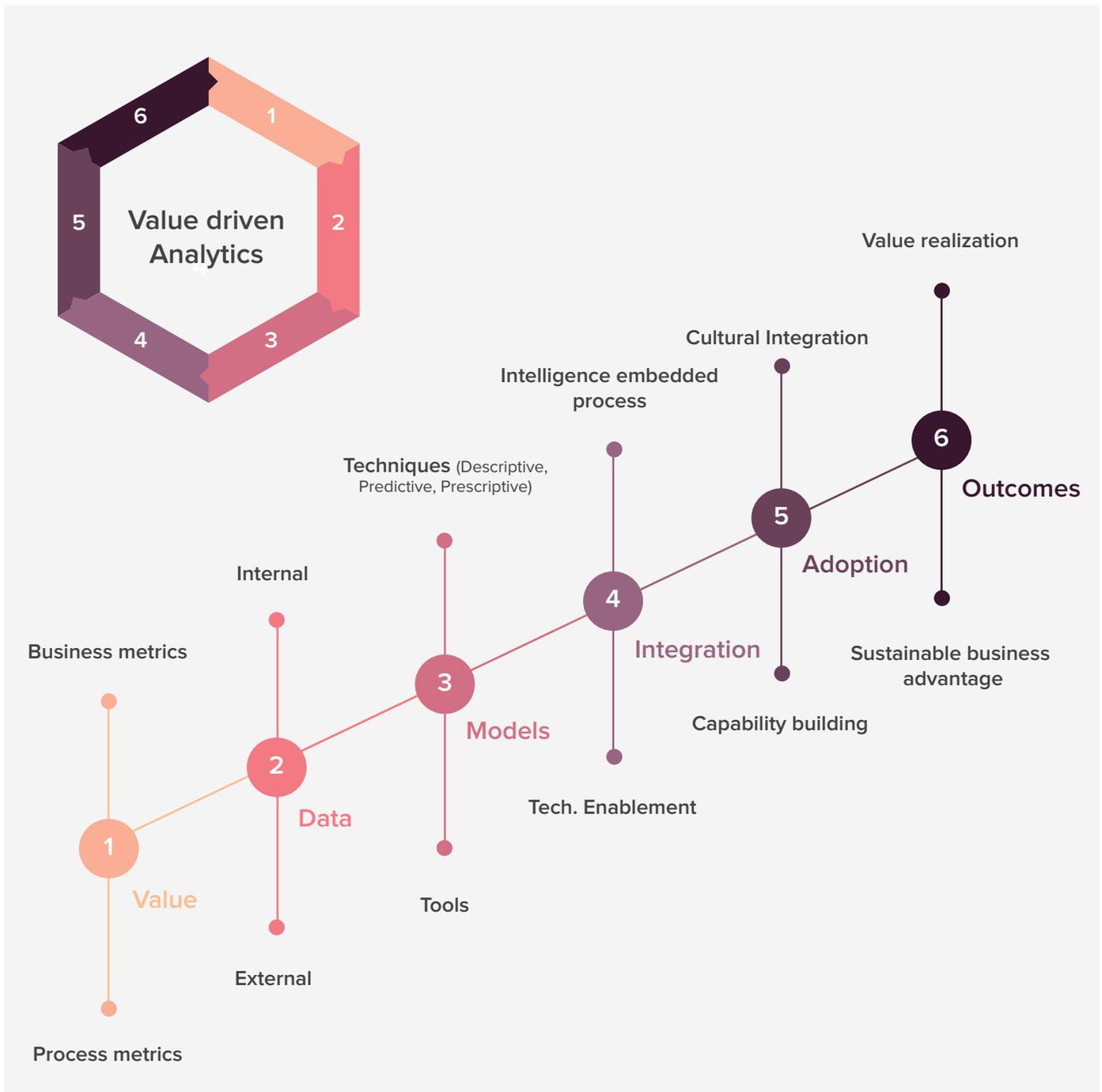


Fig. 1: VALUE driven ANALYTICS framework

Key Components of the Framework

Value

The first step is to ask some fundamental questions that shape the strategic vision and establish the value envisioned from any analytics initiative.

- What will data and analytics be used for?
- How will the insights drive value?
- How will the value be measured?
- What are the Business and Process Metrics which will be impacted? Why and how will they be impacted?
- Is this desired impact aligned to the business objective and strategic vision?

The objective of this step is to:

- Clearly articulate the business need and projected impact.
- Outline a clear vision of how the business will use the solution.

Data

The second step is to analyze the available data – internal and external – which can be leveraged to solve the problem and to establish the data infrastructure in order to gather, process and analyze this data.

The key capabilities to establish in this step are:

- Gathering data from internal and external sources
- Appending key external data
- Building an underlying data infrastructure for its generation, processing and management.

Many organizations struggle with switching from legacy data systems to a more nimble and flexible architecture for Big Data. Solving this problem is a foundational step to establishing a robust, transformational analytics capability.



Models

The third step is acquiring analytics capabilities and tools needed to derive insights and value from the data.

Organizations may choose to build these capabilities internally or partner/outsourcing them to specialists.

The critical components of this step are:

- Applying supervised and unsupervised learning approaches to develop the most suitable analytical model with an agile approach.
- Evaluating various analytical tools, identifying and implementing the right stack for the organization.
- Codifying, validating and testing the heuristics across the organization.

Integration

The fourth step is the most common stumbling block - changing business processes to integrate data insights into the actual business workflow. This step acts as a bridge between analytical insights and getting them into the hands of the right personnel to make effective data-driven business decisions.

This step involves:

- Redesigning processes to seamlessly embed analytical intelligence.
- Developing an intuitive user interface that is integrated into the day-to-day workflow.
- Automating workflows.

Adoption

The fifth step is extremely critical in driving a data-driven decision culture in the organization. Organizations need to build the capabilities of executives and mid-level managers to understand how to use data-driven insights and to begin to rely on them as the basis for making decisions.

Successful realization of business value from analytics initiatives and solutions requires personnel to accept and trust the tools, understand how they work and use them consistently in making decisions. That is why managing the adoption phase effectively is critical to achieving optimal analytics impact.

Outcomes

Finally, organizations need to objectively measure the impact of analytics solutions across the business and process metrics defined during the first stage. This is an absolutely critical but the most neglected step.

The ROI or the true value of analytics solutions need to be clearly measured, analyzed and appropriate investment or correction needs to be made.

Measuring analytics ROI objectively goes a long way in clearing the clutter of initiatives which don't add value to business performance and enables further investment in the analytics initiative and capabilities that bring in transformational business value.

Metrics to Measure Value at Each Stage

We cannot measure value without defining the right metrics. An underlying objective of the VALUE driven ANALYTICS framework is therefore to have well defined metrics at each stage.

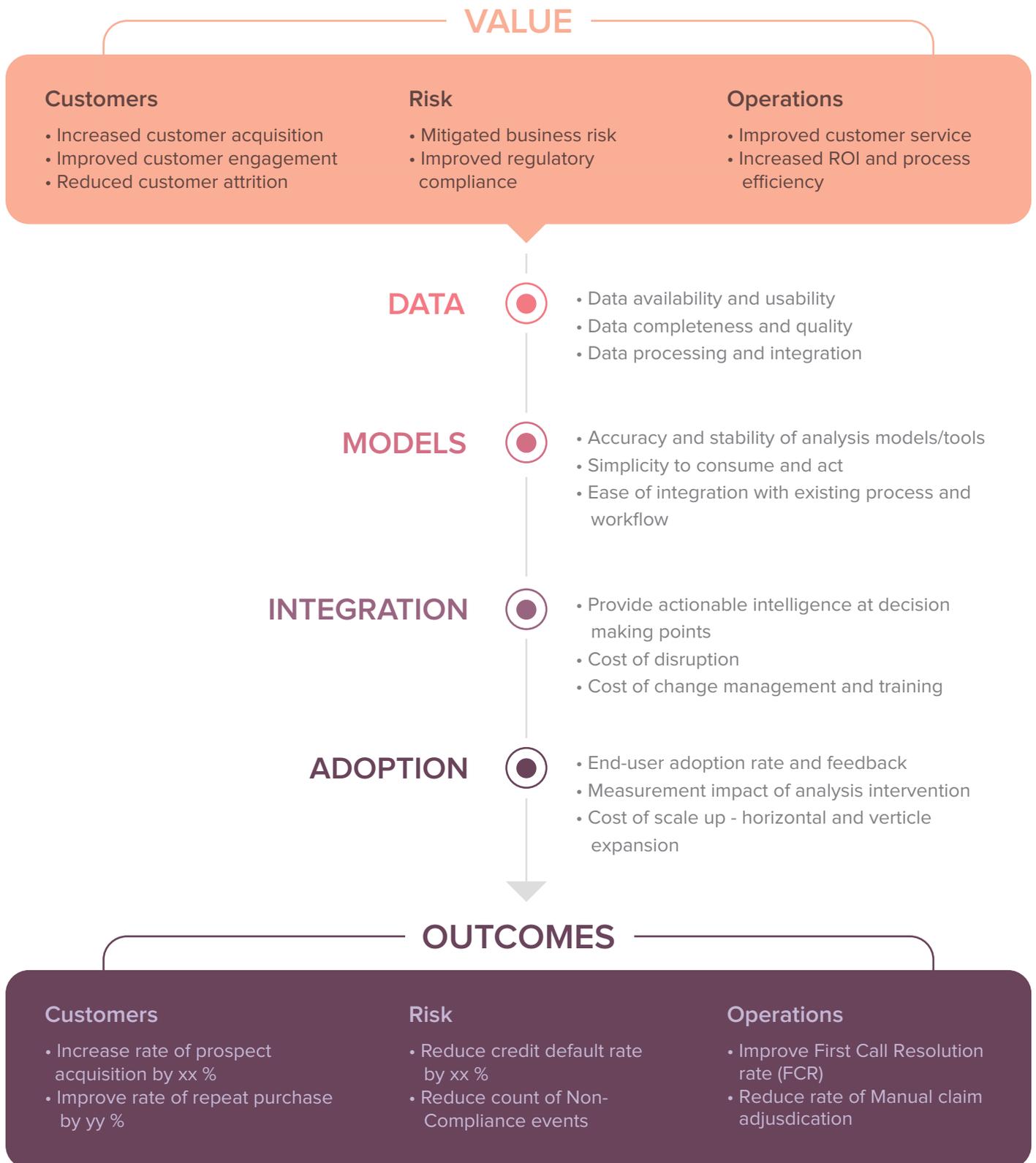
Businesses across the globe are primarily run based on three key dimensions – Customer, Risk and Operations. A business or technology initiative is valuable only if it directly impacts one of these dimensions. At the value stage of the framework, it is important to define the objective of the analytics initiative across at least one of these dimensions. For example, the simple underlying objective of an analytics capability could be improvement of customer engagement.

At the same time, we must also keep the expected outcome in mind. In our example of improving customer engagement, rate of repeat purchase to be increased by at least xx% is the outcome. These metrics of course need to be aligned to strategic and operational objectives.

With the Value objective and the Outcome metrics set and aligned to one of the business dimensions of customer, risk and operations; we need to set the evaluation framework across each of the stages from Data to Adoption. Measuring clearly defined metrics across every stage ensures objective value measurement and ability to course correct in an agile manner.



In the diagram below, is the recommended framework for defining metric to measure value across various stages of developing a transformational analytics capability.



Through the Prism of Value Driven Analytics Framework

The following questions need to be answered by any organization if they want to assess the value they are able to derive from analytics and maximize the ROI from their analytics investment.

Business Stage

In other words, what is their stage growth and their vision at this stage? Are they a start-up trying to leverage innovation and disruption to enter the market? Are they a business seeing high growth that wants to build processes and capability to sustain this growth? Or are they a mature business struggling to transform themselves?

Organization Culture

How does the current organization culture help in imbibing insights and intelligence in its day-to-day business processes and decision making? Do the front line sales people, business operation managers, IT infrastructure

personnel, financial analysts, marketing leads leverage analytics driven insights to make effective business decisions? Is anyone tracking the ROI of such decisions? Are data-driven business decisions an organizational culture or an after-thought to support the decisions that have been made already?

Analytical Maturity

What is the current state of analytical maturity of the organization? Does the basic data and infrastructure exist and is it being leveraged effectively? Does the analytical capability help derive business insights required to achieve business objectives and organizational vision?

The **VALUE** driven **ANALYTICS** framework provides the right prism to look through and find answers to these questions in a structured and well-crafted manner.



Conclusion

Weaving analytics into the fabric of an organization and leveraging it to transform business processes, is a journey. Every organization is on its own unique stage and will progress at its own pace - from a fragmented beginning to that of emerging influence to a world-class corporate entity.

Several organizations delve into analytics with a siloed approach where analytics initiatives and capabilities are not aligned to a definitive business value. In the absence of a guiding metrics to measure the outcomes, many of these initiatives end up building bridges to nowhere and result in poor ROI.

Implementing the VALUE driven ANALYTICS framework helps create a clear definition of business value. It also helps organizations assess their current level of maturity and define a metrics-driven path to achieve business value realization and sustainable competitive advantage.



About the author

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Ashish is an experienced leader and professional in the field of analytics and consulting. His experience spans over management consulting, data sciences, analytics services and system implementation for a wide array of clients including several Fortune 500 companies. With his cross-domain experience in enabling outcomes-driven analytics solutions, Ashish has helped his clients transform their customer experience and business processes.

About Nagarro

Nagarro provides technology services for digital disruption to both industry leaders and challengers. When our clients want to move fast and make things, they turn to us. We combine design, digital and data to help them outperform the competition. We distinguish ourselves by our agility, imagination and absolute commitment to our clients' business success. Some of our clients include Siemens, GE, Lufthansa, Viacom, Estée Lauder, ASSA ABLOY, Ericsson, DHL, Mitsubishi, BMW, the City of New York, Erste Bank, T-Systems, SAP and Infor. Working with these clients, we continually push at the boundaries of what is possible to do through technology, and in what time frame. Today we are more than 3,500 experts across 12 countries. Together we form Nagarro, the global services division of Munich-based Allgeier SE.