The Role of Analytics in a Recessionary Economy

White Paper

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The world is shifting to a new normal, and yet much of the advice that executives have received is remarkably similar to what they heard in earlier recessions. The underlying objective of these “how to cope with recession” recipes appears to be to survive or at best maintain market share, in short, “Lay low until the storm passes.” This would be good advice if you hope to maintain the relevance of your business after the storm passes. However, we don’t think that is going to be business as usual this time around; picking up where companies left off just might not be enough.

Corporations across the world need to hone several capabilities in the right proportion if they want to be able to weather this storm and come out stronger. These are not part of a “good to have” wish list but rather are “must have” capabilities. These strategic imperatives should be part of your performance dashboards if your business is to confront changing realities and adapt to the new normal. The key enabler is the ability to leverage data and get relevant business insights through actionable analytics. To gauge where you stand with these capabilities, look into your company’s ability to do the following:

1. Ability to keep your ear to the ground: This includes understanding and anticipating change in your customer’s preferences, identifying the key drivers of customers’ choices and quantifying their impact on the choice process, micro-segmenting your customer base to enable focused targeting.
2. Ability to look around: This means anticipating a shifting competitive landscape for informed rather than knee-jerk responses, building effective market-sensing processes and establishing learning capabilities that are essential for continuously monitoring trends and events in markets, and developing the ability to do competitive analytics by analyzing market data to predict trends ahead of the competition.
3. Ability to manage business and financial risks: Are you able to use the right data and right measures to quantify and track knowable risks and using simulations to aid gut-based planning with fact-based scenario planning?
4. Ability to differentiate between expenditure and investment: Investments not tracked on performance measures are no different than expenditures and vice versa, based on the ability to develop and track key leading indicators so that you can take remedial actions rather than doing post-fact analysis.
5. Ability to optimize budget allocations: This means optimizing the budget allocation to give maximum expected lift in revenue and profitability. Should you increase or decrease your marketing spends as your competitors’ cut back? Our work has shown that increase in marketing spend causes a larger increase in market share during a recession, compared to stable times.
6. Ability to maximize return on investments: This includes undertaking sensitivity analysis of the key levers that impact your investment and adjusting them to give you maximum possible return. Also consider reprioritizing your ad spend to emerging platforms like social networking, Internet and mobile technology for better value and more accurate measurement as compared to traditional channels. Accurate real-time measurements will require the ability to analyze, learn and adapt on the fly.
7. Ability to track and measure customer service: Do you understand and leverage social media platforms to keep an eye on the pulse of your customers through opinion mining? This is based on the ability to do buzz analytics and sentiment analysis.
8. Ability to manage your online assets: This includes managing online customer activity for low cost information rich transactions and analyzing Web traffic for higher click through rates.
9. Ability to optimize your working capital: This means understanding and tracking cash flow to identify cash drains and sources to minimize working capital requirements. Quantify volatility in your cash flow requirements to begin scenario planning of working capital requirements.
10. Ability to manage your supply chain: Are you able to measure supply chain effectiveness and identify levers for improvement? This is based on the ability to maximize customer service levels while lowering your inventory costs.
11. Ability to effectively evaluate your capital expenditure: This includes using option games (a mix of options and game theory) to balance investment commitments under competitive pressures against flexibility of keeping the investment option alive.

It is important to realize that these abilities are not a set of one-time problems to be addressed in every planning cycle of your business. The market will not wait for your planning cycle to change. This mandates a mechanism in your business that can constantly evaluate and provide timely answer to these questions. You need to institutionalize analytics in your business decision-making process.

Institutionalizing analytics is not a destination or a goal your company should aspire to, rather, it is a continuous process of internalizing and integrating analytics in your company’s business decision-making process. There are two interacting steps to instituting and standardizing analytics in your organization:

1. Creating analytics: defining and enabling analytics.
2. Consuming analytics: communicating, implementing, measuring, incentivizing and developing cognitive repairs.

Creating Analytics

Defining Analytics

The starting point should be to articulate your analytics intent as unambiguously as possible. What do you want analytics to accomplish in your organization? Or, more specifically, what kinds of decisions and at what levels should be supported with analytics? There should be a good mix of the following types of analytics:

- Descriptive analytics is looking at data to describe the current business situation. All of your performance dashboards - ranging from crude spreadsheet manifestations to rich visualizations and platform-based interactive reports - fall in this gamut.
- Inquisitive analytics is the study of data to validate/reject business hypotheses. This encompasses breaking down data and using data mining techniques to identify trends, segments, outliers and unexplained or counterintuitive possibilities.
- Predictive analytics is data modeling to determine future possibilities. This encompasses applying statistical modeling to forecast your key top line and bottom line indicators, understand future customer behavior, the impact of changing macro-economic factors on your business, etc.
- Prescriptive analytics is the combination of the above to provide answers to the “so what?” and the “now what?” questions. For example, what should I do to retain my key customers? How do I improve my supply chain to enhance service levels while reducing my costs?

The next step is to evaluate your current IT infrastructure and data capabilities to ensure that they support your analytic intent. This should be followed by evaluating the gap between the analytics competency currently present in your organization and the capabilities needed to realize the intent, and then developing a roadmap to bridge it.

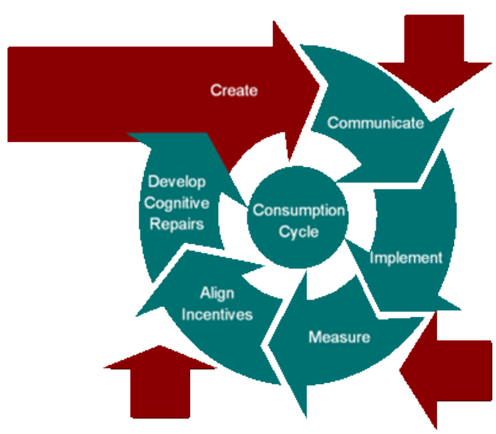
These steps, when executed systematically, will help you create analytics in your organization. The key challenges you may face in this process are:

- Communication barrier between “math” and “business” people.
- Lack of support from CXO/business unit/IT levels.
- Having a predictive model is no longer a differentiator.

Consuming Analytics

This refers to the planned, ongoing use of a set of interlocking business practices and competencies that collectively delivery superior value from your analytics investments.

Figure 1: Consumption Cycle



Communication: Successful consumption of analytics is a collaborative endeavor. The first step in this process is to take your analytics intent beyond your core team and sell it to wider group of decision-makers – the prospective daily consumers of analytics in your organization. The current economic scenario gives you a compelling story line and helps you create a convincing platform to evangelize analytics in your organization.

Implement: Organizations that successfully consume analytics are driven by leadership, which builds consensus in the organization and allows for moving ahead without the need to have everyone on board every step of the way. Strong leadership has been found to be the most important trigger in the wider analytics adoption in organizations. The initial focus of implementation should be on getting all the right ingredients in place to create the basic human and technology infrastructures to help you pluck the low-hanging fruit.

Measure: The true test of consumption is to use analytics to measure itself. However, the benefits need not always be translated in hard numbers. One often unanticipated but profound change in organizations is the maturing of a culture of objective debates, arguments and viewpoints driven by data and not just "gut feel." I must also warn here against overestimating the impact of analytics by discounting the human element in it. A successful business decision is a healthy combination of business experience and analytics - both merit equal credit for successful analytics consumption.

Align incentives: Successful consumption of analytics mandates creation of more structured decision-making processes, which is driven by data and analysis. This puts constraints on free-flowing, experience-driven decision-making. The implementation will also bring in new stakeholders in your employees' decisions as well as higher levels of oversight. Sometimes a general tendency of status quo bias exists, and employees do not want to venture out of their comfort zone. You need to create robust incentives to overcome these barriers. However, creating well-aligned incentives is just one way piece of the puzzle, and is not fully sufficient to overcome this bias.

Develop cognitive repairs: Our everyday decision-making is influenced by numerous biases intrinsic to human nature. Presence of data and analysis challenges these biases and drives us out of our comfort zone. This results in undesirable conflicts and dysfunctional behaviors. The onus is on top leadership to make the decision-makers in the organization aware of the presence of these biases. Creation of counterintuitive business insights based on data and then going and proving it right for all to see is by far the most effective to both expose biases and create repairs.
Various organizations in services as well as product-based industries have flawlessly executed on creating analytics but have failed miserably on consumption. Creating analytics does not automatically result in institutionalizing analytics. Whether or not your organization suffers from this challenge will be determined by your answers to these key questions:

1. Do you have an experience of creating a lot of analytics but failing at consumption?
2. Does it make sense to ramp up/down analytics creation to maintain balance with consumption?
3. Human bias exists. Do you need to develop structures that push people toward healthy conflict and resolution?

If the answer to any of the above questions is affirmative, then your organization suffers from the creation-consumption gap. To put it another way, it is the difference between doing analytics and being analytical. While doing analytics focuses on creating analytics, being analytical balances and integrates creation of analytics with consumption of analytics. Organizations able to bridge this creation-consumption gap will be able to capitalize on analytics as a source of competitive advantage.