

Tipping Point Analysis

A Strategic Tool in Uncertain Times

The recent State of US Logistics report suggests continued economic uncertainty. A closer look at unemployment, the debt and credit markets, and the consumer confidence index—all point to the same conclusion. So how do you develop your strategy when the future is so uncertain?

Introduction

Tipping Point Analysis is the perfect tool for defining strategy during uncertain times. It helps you consider all possible outcomes and weigh them against the probability of occurring. That is to say, you develop your strategy based on your best assumptions of future economic conditions. Then assess what change in assumptions would cause a change in strategy.

What is Tipping Point Analysis?

Every strategy is built on a set of assumptions about an unknown future. But with so much uncertainty today, one set of assumptions may not be enough. Some companies are just now considering the possibility that today's economic climate may represent a new "normal." Their assumptions based on past performance may not even represent the future.

Market leaders are taking advantage of Tipping Point Analysis to help them understand where a shift in conditions dictates a shift in strategy. They identify the conditions that drive decision-making and then explore what happens when the needle moves in one direction or another.

Tipping Point Analysis identifies the points on either side of a "best guess" projection where a strategy would take a different path. Next, it assigns a probability to each tipping point, answering the question *"What is the likelihood of each assumption coming true?"*

Lastly, Tipping Point Analysis applies your company's tolerance for risk to the equation, in essence answering the question *"How confident do you need to be before you are willing to make a significant investment?"*

Tipping Point Analysis

- 1. Identify the driving conditions that have the greatest impact on the business.**
- 2. Determine the points of change in each condition at which your strategy would be impacted (tipping points).**
- 3. Calculate the probability of reaching each tipping point.**
- 4. Choose a strategy based on the probability of reaching each tipping point, balanced with your company's tolerance for risk.**

Drivers for Tipping Point Analysis

Which drivers should be considered when doing Tipping Point Analysis? Typical drivers include changes in sales volume, operating costs and customer service levels.

Sales Volume. Sales growth of 30% will result in a different strategy than growth in the single digits. But how that sales volume manifests is equally important. For example, do you expect to expand your product line or rationalize your SKUs? Are your sales coming from new or shifting channels?

A gaming retailer’s sales growth might have led them to expand their distribution facility. But a deeper analysis showed the growth coming mostly from their digital channel, prompting an investment in electronic distribution capabilities.

Operating Costs. At what point does a rise in operating costs impact your choice of strategy? Would your distribution strategy change, for example, if oil cost per barrel doubles?

On examining their transportation tipping points, a footwear manufacturer determined that if overseas carrier costs rose above a certain threshold, they would move to a “near shore packaging” strategy. To save on container space, they would ship their US-bound products, in bulk, to Mexico for final packaging. The result: Considerable transportation savings.

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Customer Service Levels. Tipping Point Analysis based on changes in customer service level may not be as obvious. But a move to “next day delivery” could have significant implications on your supply chain strategy. And as online channels open up new possibilities, they bring new customer demands around availability, order visibility, speed of delivery, and proactive communication. ***At what change in customer service level do you need to rethink your strategy and its impacts?***

CASE STUDY

Sporting Goods Retailer

Tipping Point Analysis Delays a Large Capital Investment

A large sporting retailer was projecting growth that its existing distribution network would not be able to handle. They were considering a large investment in a new distribution center. They used Tipping Point Analysis to prepare themselves for their board of director’s presentation.

They identified several variables around growth, including number of new stores per year, new store sales growth and eCommerce channel sales growth. Next, they developed conservative, probable and aggressive values for each.

They also identified several related variables, including: inventory turns, direct store deliveries, pack-by-store, returns, productivity rates, freight rate and fuel surcharge increases.

Reviewing the data, they could see that some of the variables influenced others. They reviewed the interaction between these “high sensitivity” variables, and then combinations of high sensitivity variables. They saw how that their model suggested different scenarios based on a change in the time horizon.

Conservative values showed they could delay the new building by as much as three years. Aggressive values showed that they would run out of distribution capacity in just one year. With this ability to do “what if” analysis, they went back to their stakeholders for more input. In the end, they decided to expand their existing facility, pushing out the need for the new building, and a significant capital investment, for 5 years.

Assign Probability and Examine Risk Tolerance

The next step in Tipping Point Analysis is to assign a probability to each possible tipping point, and to investigate your own company's tolerance for risk. There's no "one size fits all" solution. Evaluating your own data, your company culture, and tolerance for risk, is the only way to get to the answer that's right for you.

A footwear manufacturer planned to build an additional distribution facility. But with only a moderate confidence that the growth would continue, and a general intolerance for risk, they postponed a large capital investment in favor of expanding their two existing facilities. With Tipping Point Analysis, they were able to clearly articulate their concerns and their recommendations to their board.

Why Tipping Point Analysis?

Confident Decisions. With Tipping Point Analysis, you can be more confident in your decisions. You can stand before your board and clearly state your assumptions, the probabilities you assigned to each condition, and the conditions that would cause a change in your recommendation. You will make more informed and thorough investment decisions that are readily supported by the data.

Holistic View. By its nature, Tipping Point Analysis takes a holistic view to planning. It looks for cause and effect across a broad number of factors. It acknowledges that a siloed approach to planning will get limited results.

Proactive. Once you decide on a strategy, you continue to monitor the variables that resulted in your decision. This allows you to be proactive to changing conditions. As a condition approaches the next tipping point, you are triggered to re-evaluate your strategy.

Summary

Economic uncertainty is not all bad. It forces companies to re-evaluate their strategy, remove sacred cows and make hard choices with great discernment. Companies that make good strategic moves now will come out ahead. Tipping Point Analysis help leaders understand which strategic moves are right for their company even under changing conditions. It positions them for the uncertain future.

"You can't make a decision based on cost vs. return for one area of the supply chain, without considering other areas that may be impacted by that decision."

**Greg Johnson, Senior Vice President
O'Reilly Auto Parts**

About Fortna

Fortna is a professional services firm helping companies with complex distribution operations meet customer promises and competitive challenges profitably. We develop a solid business case for change and hold ourselves accountable to those results. Our expertise spans supply chain strategy, distribution center operations, material handling, supply chain systems and organizational excellence.

How Can We Help?

Fortna helps companies use Tipping Point Analysis to assess their options for strategic investment. To learn more, ask to speak with a strategy expert.

Call: 800-367-8621
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