



To our shareholders:

Many of the important decisions we make at Amazon.com can be made with data. There is a right answer or a wrong answer, a better answer or a worse answer, and math tells us which is which. These are our favorite kinds of decisions.

Opening a new fulfillment center is an example. We use history from our existing fulfillment network to estimate seasonal peaks and to model alternatives for new capacity. We look at anticipated product mix, including product dimensions and weight, to decide how much space we need and whether we need a facility for smaller “sortable” items or for larger items that usually ship alone. To shorten delivery times and reduce outbound transportation costs, we analyze prospective locations based on proximity to customers, transportation hubs, and existing facilities. Quantitative analysis improves the customer’s experience and our cost structure.

Similarly, most of our inventory purchase decisions can be numerically modeled and analyzed. We want products in stock and immediately available to customers, and we want minimal total inventory in order to keep associated holding costs, and thus prices, low. To achieve both, there is a right amount of inventory. We use historical purchase data to forecast customer demand for a product and expected variability in that demand. We use data on the historical performance of vendors to estimate replenishment times. We can determine where to stock the product within our fulfillment network based on inbound and outbound transportation costs, storage costs, and anticipated customer locations. With this approach, we keep over one million unique items under our own roof, immediately available for customers, while still turning inventory more than fourteen times per year.

The above decisions require us to make some assumptions and judgments, but in such decisions, judgment and opinion come into play only as junior partners. The heavy lifting is done by the math.

As you would expect, however, not all of our important decisions can be made in this enviable, math-based way. Sometimes we have little or no historical data to guide us and proactive experimentation is impossible, impractical, or tantamount to a decision to proceed. Though data, analysis, and math play a role, the prime ingredient in these decisions is judgment.¹

As our shareholders know, we have made a decision to continuously and significantly lower prices for customers year after year as our efficiency and scale make it possible. This is an example of a very important decision that cannot be made in a math-based way. In fact, when we lower prices, we go against the math that we can do, which always says that the smart move is to *raise* prices. We have significant data related to price elasticity. With fair accuracy, we can predict that a price reduction of a certain percentage will result in an increase in units sold of a certain percentage. With rare exceptions, the volume increase in the short term is never enough to pay for the price decrease. However, our quantitative understanding of elasticity is short-term. We can estimate what a price reduction will do this week and this quarter. But we cannot numerically estimate the effect that consistently lowering prices will have on our business over five years or ten years or more. Our *judgment* is that relentlessly returning efficiency improvements and scale economies to customers in the form of lower prices

¹ “The Structure of ‘Unstructured’ Decision Processes” is a fascinating 1976 paper by Henry Mintzberg, Duru Raisinghani, and Andre Theoret. They look at how institutions make strategic, “unstructured” decisions as opposed to more quantifiable “operating” decisions. Among other gems you will find in the paper is this: “Excessive attention by management scientists to operating decisions may well cause organizations to pursue inappropriate courses of action more efficiently.” They are not debating the importance of rigorous and quantitative analysis, but only noting that it gets a lopsided amount of study and attention, probably because of the very fact that it is more quantifiable. The whole paper is available at www.amazon.com/ir/mintzberg.

creates a virtuous cycle that leads over the long term to a much larger dollar amount of free cash flow, and thereby to a much more valuable Amazon.com. We've made similar judgments around Free Super Saver Shipping and Amazon Prime, both of which are expensive in the short term and—we believe—important and valuable in the long term.

As another example, in 2000 we invited third parties to compete directly against us on our “prime retail real estate”—our product detail pages. Launching a single detail page for both Amazon retail and third-party items seemed risky. Well-meaning people internally and externally worried it would cannibalize Amazon's retail business, and—as is often the case with consumer-focused innovations—there was no way to prove in advance that it would work. Our buyers pointed out that inviting third parties onto Amazon.com would make inventory forecasting more difficult and that we could get “stuck” with excess inventory if we “lost the detail page” to one of our third-party sellers. However, our judgment was simple. If a third party could offer a better price or better availability on a particular item, then we wanted our customer to get easy access to that offer. Over time, third-party sales have become a successful and significant part of our business. Third-party units have grown from 6% of total units sold in 2000 to 28% in 2005, even as retail revenues have grown three-fold.

Math-based decisions command wide agreement, whereas judgment-based decisions are rightly debated and often controversial, at least until put into practice and demonstrated. Any institution unwilling to endure controversy must limit itself to decisions of the first type. In our view, doing so would not only limit controversy—it would also significantly limit innovation and long-term value creation.

The foundation of our decision-making philosophy was laid out in our 1997 letter to shareholders, a copy of which is attached:

- We will continue to focus relentlessly on our customers.
- We will continue to make investment decisions in light of long-term market leadership considerations rather than short-term profitability considerations or short-term Wall Street reactions.
- We will continue to measure our programs and the effectiveness of our investments analytically, to jettison those that do not provide acceptable returns, and to step up our investment in those that work best. We will continue to learn from both our successes and our failures.
- We will make bold rather than timid investment decisions where we see a sufficient probability of gaining market leadership advantages. Some of these investments will pay off, others will not, and we will have learned another valuable lesson in either case.

You can count on us to combine a strong quantitative and analytical culture with a willingness to make bold decisions. As we do so, we'll start with the customer and work backwards. In our judgment, that is the best way to create shareholder value.



Jeffrey P. Bezos
Founder and Chief Executive Officer