Catch the Innovation Wave...

with the New Science of B2B Customer Insight

The Innovation Wave will differ from earlier Quality and Productivity Waves: A new science will ensure profitable, sustainable growth for some B2B companies.
If you could wish one thing for your company, what would it be? Many would choose profitable, sustainable organic growth. Imagine working at such a company. Employees would have stable, rewarding careers... investors and industry-watchers would admire your company... and you’d irritate competitors.

In the Innovation Wave, some companies will experience this growth, while others watch it. We have historical precedent in the Quality Wave. After he was ignored by US industry, Dr. W. Edwards Deming took his quality principles to Japan. As a result, its share of global auto production exploded from less than 3% in 1960 to nearly 30% by 1980. Being early or late for a wave has consequences.

The Productivity Wave, with its lean manufacturing and business process re-engineering, also had leaders and laggards. And so it will be for the Innovation Wave. This wave is hard to miss, with about 100 books on innovation written weekly. One hundred times as many articles on innovation are now published as in the 1970’s. With this new wave, the focus has shifted from make it uniformly... to make it efficiently... to make what customers value.

Compared to earlier waves, the Innovation Wave could be a tidal wave. The first two waves apply to current operations, and therefore reach a point of diminishing returns. What can you do after you reach zero quality defects? And how do you boost productivity in a high-tech factory run by the proverbial “man and a dog”? (The man feeds the dog; the dog bites the man if he touches the controls.)

In contrast, the Innovation Wave impacts future sales... so it has unlimited potential. Figure this out and you’ll reach that Holy Grail of profitable, sustainable organic growth. What will a
Regarding solutions, laggards didn’t suffer an availability deficiency. They suffered an adoption deficiency.

What’s the obvious problem to be solved in the Innovation Wave? A huge new-product failure rate. According to Dr. Robert Cooper—the father of Stage-Gate®—the average company only has a 25% success rate after it finishes its front-end work.

If you’ve successfully implemented Six Sigma, you’ve got three defects per million attempts… while your new product development is stuck at three defects per four attempts.

Nowhere else in business do we tolerate this level of waste and inefficiency. This will not continue, but what will change in the Innovation Wave? Winners will learn how to bring clarity to the “fuzzy” front-end of innovation. Consider these questions:

1. What will change in the Innovation Wave?
2. Do B2B companies have an advantage?
3. What is this science of B2B customer insight?

**QUESTION 1**

**What will change in the Innovation Wave?**

This is an important question. What if Detroit automakers in the 1960’s could have seen what was coming? Would they have behaved differently? My first rule of battles is, “You can’t win a battle you don’t know you’re in.” By the time General Motors knew it was in a battle, Toyota had won the battle for quality… a victory it exploited for decades.

No one can predict with certainty what will happen in the Innovation Wave, but we can apply observations from the Quality and Productivity Waves. In both cases, there were obvious problems to be solved… high product variability and inefficient waste, respectively. And the solutions to these problems were available early in each wave (such as statistical process control and the seven wastes of lean production). Regarding solutions, laggards didn’t suffer an availability deficiency. They suffered an adoption deficiency.

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**ADAMS’ FIRST RULE OF BATTLES: YOU CAN’T WIN A BATTLE YOU DON’T KNOW YOU’RE IN.**
1 Does your company have bright R&D people?

2 Do your competitors also have bright R&D people?

3 If they do, how will your company win?

WILL YOU WIN BECAUSE YOUR R&D PEOPLE ARE 20% BRIGHTER THAN COMPETITORS’?

Will you win because your R&D people are 20% brighter than competitors’? If that logic seems shaky, consider this: When you put your annual operating plan together, do you plan to grow at the same or slower rate as the market you serve? You plan to grow faster, right? And do your competitors also plan to grow faster? So, all the competing suppliers plan to grow faster than the market they serve, year… after year… after year. As Dr. Phil would say, “How’s that been working for you?”

Here’s a suggestion: What if your R&D worked only on problems customers truly cared about… while competitors kept guessing what to work on? Would that be a competitive advantage? Perhaps there are two innovation problems to solve.

Problem 1 asks, “What unmet needs will this market reward us to satisfy?” Problem 2 asks, “How can we satisfy these needs?” Which Problem consumes most of your innovation investment? If you’re like most companies, you spend at least 90% of your total project costs on Problem 2.

Which Problem leads to most new product failures? As long ago as 1971, the answer was “inadequate market analysis,” or Problem 1. Decades of research and experience since then suggest Problem 1 remains the major problem. Which Problem could be turned into a science? As we shall see, it is Problem 1—focusing on market needs—at least for B2B companies.

Two Innovation Problems to Solve...

PROBLEM 1
What’s the Right Question?
(Market Needs)

PROBLEM 2
What’s the Right Answer
(Supplier Solutions)
So we are under-investing in Problem 1… understanding market needs. But it gets worse: Our very thinking today regarding market needs (Problem 1) and supplier solutions (Problem 2) is completely backwards. Do you have a Stage-Gate process? Good, many companies benefit from such discipline. Does this start with “idea generation,” perhaps with a light bulb icon next to it? That’s fine too. But if your new product development starts with an idea, whose idea is it? Yours… or your customer’s?

Most suppliers start with their own solution to assumed market needs. They validate their idea with a few customers, develop it and launch it. When do most companies explore market needs? They wait to see if anyone buys their new product.

What if we flip the process? What if we start with market needs and then develop our supplier solution? In the future, we’ll think it peculiar that companies tested market needs by launching products at customers. We certainly think it odd now that companies once employed end-of-production-line quality inspectors (vs. point-of-production statistics). In all waves, early research beats late rework.

A company cannot address Problem 1 too little and too late without suffering consequences. The first consequence is obvious: They have a terrible new-product success rate. Say… 25%. The second is that their R&D becomes the biggest resource sinkhole in the company. Large B2B suppliers invest tens of millions annually in R&D staff, many of whom work diligently on answers to the wrong questions. If your firm is like most, one-half of your product development resources are working on projects that will be cancelled or fail to yield adequate returns.

Most companies spend over 90% of their total project costs on Problem 2.

Most companies explore market needs too late

Supplier Solution
to assumed market needs

Market Needs
explored by seeing if product sells

IDEA
VALIDATE
DEVELOP
SELL

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R&D BECOMES THE BIGGEST RESOURCE SINKHOLE IN THE ENTIRE COMPANY.

Adding Free R&D Resources

Frustrated by your lack of R&D resources? How would you like to add employees who know your technologies and markets, can start work tomorrow, and cost nothing more? It’s easy: Just kill the dead-end projects that tie up half your resources. Free your people to work on projects your customers actually care about.

You might ask which projects to kill. That’s difficult to say… today. But start applying the science of B2B customer insight now, and the dead-end projects won’t get to the development stage next year.

Think of this as shifting resources “up and out.” You shift resources “up” in time by investing manpower earlier (understanding market needs), to be more successful later (developing solutions). You shift resources “out” by encouraging your employees to spend less time talking to each other… and more time directly engaging customers, through interviews and tours.

Here’s the good news: When it comes to understanding market needs early and well, B2B suppliers have a significant advantage over consumer goods suppliers. We’ll explore this next.

QUESTION 2

Do B2B Companies Have an Advantage?

If you were gathering customer insights about belts, would you rather interview someone who uses a belt to convey iron ore… or hold up their pants? B2B customers usually offer more insight for five reasons.

1. They have greater knowledge. Your B2B customers—engineers, scientists and other professionals—often have years of education, a good deal of training and mentoring, and lots of time on the job. B2C? Unless you’re a stylish dresser, you know your belt size and little else.

2. Interest level is higher. B2B buying decisions often have huge financial impact. If you can help your customer load ore ships faster, he or she can become a hero at work. End consumers typically must be paid to attend a focus group.

3. B2B buyers are usually more objective. They make important decisions in groups, must follow company procedures, and know they’ll be held accountable for buying decisions. In contrast, end consumers are often
fickle and manipulated by advertisers.

4 B2B customers have keen foresight. They focus on financial objectives, and these clear, measurable goals allow them to predict the benefits they want. B2C consumers have a harder time predicting what belt would make them feel stylish… which video game would be most entertaining… or what snack food would taste best.

WOULD YOU RATHER INTERVIEW SOMEONE WHO USES A BELT TO CONVEY IRON ORE... OR HOLD UP THEIR PANTS?

5 B2B buyers are more concentrated. A B2C supplier might have millions of customers, but a B2B supplier has far fewer. In highly-concentrated B2B market segments, the top ten potential buyers may represent 50 to 100% of the total market buying power.

This leads us to the question, “so what?” If your B2B customers are knowledgeable, they’re able to help you design better products. If they are interested, they’re willing to do so. If customers are objective, their decisions are rational, stable, and understandable. If they have foresight, they can discuss their needs with you before they see your prototype or sample. If there are just a few customers, you can directly engage them… priming them to buy your product later when you launch it.

So B2B customers can provide their suppliers with great insight. But an advantage is no advantage… unless you take advantage of it. In the Innovation Wave, winners will learn how to elevate B2B customer insight from an art to a science.

So What?

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For many companies today, innovation is like a medieval comet… rare, unexplained and totally unpredictable. But the customer insight portion of innovation (Problem 1) can be learned and used for competitive advantage. I believe this will make the Quality and Productivity Waves look like ripples.

The science of B2B customer insight is based on customer outcomes—what the customer wants to have happen… with no indication how the supplier will help make it happen. It’s Problem 1, not Problem 2. Further, in the world of B2B customers, all outcomes are associated with either a process or a product.

For ore conveying belts, these outcomes might include increased abrasion resistance, faster operating speed, and reduced maintenance costs. There are typically dozens of outcomes for any job the customer might perform using your product or service.

Two principles undergird this science. First, customer value is only created when an important, unmet customer outcome is improved. Value cannot be created for outcomes customers are already satisfied with. (Matching current value is very different than creating new value. Customers pay lower prices when suppliers match each other’s value, and higher prices when one supplier creates new value.) Customer value is created when a customer process down the value chain is improved or the ultimate product is improved. Therefore, this is where you must focus your attention.

**FOR MANY COMPANIES TODAY, INNOVATION IS LIKE A MEDIEVAL COMET… RARE, UNEXPLAINED AND TOTALLY UNPREDICTABLE.**
Second, a company’s only path to profitable, sustainable growth is customer value creation. Nothing a company does within its own operation will achieve such growth, unless customer value is also created. Companies should still improve operational efficiency; this is helpful and often necessary. But let’s be clear: Unless you are creating customer value, you’re in a race to the bottom because commoditization occurs when companies improve only quality and productivity. And in this race, you are closer to the finish line than the starting line… because the aging Quality and Productivity Waves offer diminishing returns.

Let’s do a quick logic test. You want profitable, sustainable growth. The only way to achieve this growth is through customer value creation. And all value creation comes from improving important, unmet customer outcomes. So the better you understand customer outcomes, the better your growth can be. The science of B2B customer insight lets suppliers understand these outcomes at nine levels.

Before looking at these levels, why do we call this a science? The Cambridge Dictionary defines science as “the systematic study of the structure and behavior of the physical world.” Imagine a microbiologist studying a world under the microscope. In our case, B2B companies study their customers’ worlds, focusing intently on outcomes.

Just as the microbiologist uses a microscope and proven techniques, so the B2B supplier uses specialized tools and methods to study its subject. Think of this as collecting specimens, sliding them under your microscope, and continually turning up the magnification. Each of the following nine levels reveals something new about the specimens—customer outcomes—and when the ninth level is reached, Problem 1 is solved. There is nothing more to learn about this market segment’s needs today, so the B2B supplier focuses on Problem 2… developing a solution that satisfies the important, unmet outcome(s). At this point, the project may have a high technical risk, but the commercial risk is negligible.

**Level 1. Uncover all outcomes.** Conduct qualitative Discovery interviews, projecting your notes on a screen or wall so the customer can correct them and become more engaged in the process. This is divergent thinking… followed later by convergent thinking. After discussing each outcome, ask the customer for their next outcome (challenge, problem, something in their ideal world, etc.). This makes the interview customer-led, because the supplier has no idea what the customer will say next.

Avoid supplier-led questionnaires, because they
bore... customers... to... tears. Besides, these questionnaires can’t help you learn what you don’t know you don’t know. It’s unlikely your breakthrough innovation will come from what you know... or think you know... but rather from what you had never imagined. So let your B2B customers lead you, and be prepared to be surprised.

**Level 2. Understand importance.** During these interviews, the supplier uses advanced probing skills to understand why the customer wants each outcome, and learns important details about the outcome. Done well, this probing often helps customers clarify their own thinking about these outcomes.

**Level 3. Define and set direction.** Near the end of a Discovery Interview, the customer identifies their “Top Picks” (TPs), for which the supplier helps form Outcome Statements (such as “minimize loss of belt thickness due to abrasion from ore”). Outcome Statements were pioneered by Tony Ulwick of Strategyn and are extremely helpful for crystallizing and communicating the customer’s thinking.

**Level 4. Prioritize outcomes.** After qualitative interviews, the supplier conducts quantitative Preference interviews, asking for ratings on each outcome. For instance, “How important is abrasion resistance on a scale of 1-10?”... and “How satisfied are you with abrasion resistance today on a scale of 1-10?”

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**The Surprise Paradox**

In most areas of business, a surprise is unwelcome. Surprises in product quality or cost control are seldom pleasant. But innovation relies on surprises. The most familiar type is the "solution surprise," such as the accidental discovery of Teflon®. Without a surprise, an invention cannot even be patented: The invention must be useful, novel, and non-obvious. Surprising.

Another type is the "need surprise," which occurs when a previously-hidden customer outcome becomes known. The discovering supplier has the luxury of seeking solutions in a competition-free environment. Companies trained to eradicate surprises in the Quality and Productivity Waves, have difficulty seeking them in the Innovation Wave. This causes them to miss insights that could lead to blockbuster new products.

What do surprise-averse suppliers look like? They start with their own ideas and filter them with internal process checks and reviews. If customers are interviewed at all, the supplier—not the customer—leads the conversation with a questionnaire. In an odd twist, surprise-averse suppliers are the most likely to be surprised... by their mistaken market assumptions and by innovative products introduced by surprise-seeking competitors.
The AIM Institute introduced the Market Satisfaction Gap in 2005 to process this data. The more important and less satisfied an outcome, the higher the Gap. Experience in hundreds of global industries shows a Market Satisfaction Gap of 30% or more indicates customers are eager for improvement. This lets the supplier converge with confidence on only those outcomes customers care about.

**Level 5. Learn how to measure.** In the same Preference interview, the supplier learns how to measure each outcome. If asked how to measure abrasion resistance, customers might say, “Measure loss of belt thickness over time.” They often provide guidance on lab simulations as well. Because B2B customers are so knowledgeable, these are often very rich conversations.

**Level 6. Identify satisfaction points.** The supplier asks two more key questions in Preference interviews: “For this test method, what result would be barely acceptable?” Customers might say, “one millimeter of belt thickness lost per week.” And then, “What would make you totally satisfied?” Perhaps they’d say, “No loss in thickness at all.”

The supplier now knows:

a) which outcomes customers care about
b) which test methods to use when measuring these outcomes
c) how satisfied customers would be by any particular test result

This gives you everything needed to replicate the customer experience in your operation. No longer will you need to “lob and hope” with prototypes or samples.
prototypes or samples. Because you’ve explored the customer’s world so well, you’ll know how they’ll react before they react.

**Level 7. Measure next best alternative.**
You will be able to predict customer reaction to any of four product types: 1) your existing, off-the-shelf products (if you have any), 2) competitors’ products, 3) the new product design you are imagining, and 4) your new product prototype. It’s especially critical to understand competitive offerings: Customers won’t pay a premium unless your product delivers value beyond their next best alternative.

Very few companies can quantitatively assess customers’ next best alternative. They simply aren’t asking customers the right questions (Levels 4, 5 & 6) to make this judgment. So they guess at pricing. If the company guesses too high, customers won’t buy. If the company guesses a price too low… well, customers will let it go. And so the company leaves money on the table, perhaps for the next decade or two.

**Level 8. Quantify value created.** During customer interviews and tours, the supplier gathers economic data, so they can create a value calculator. This lets them estimate how much money customers will save or make with their new product. The former occurs with process improvements (reducing costs), while the latter takes place with product improvements (selling at higher price or volume).

**Level 9. Quantify value captured.**
Finally, the supplier gives this value calculator to customers so they can document the benefits of the new product or service themselves. This raises customers’ perception of value. Many think new product pricing is determined by how much value a supplier delivers to customers… but that’s not true. Pricing is driven by customers’ perception of value delivered.

Do these nine levels seem like too much work? Consider three points: First, I worked in manufacturing in the 1970s and ‘80s, and at the time it seemed like “overkill” to train operators in statistics and process control charts. But this is
expected today. I met Dr. Deming years ago and heard him say, “It is not necessary to change. Survival is optional.” Compared to statistical process control, the science of B2B customer insight is fairly simple.

Second, you may choose to stop after the initial four levels, when Preference interviews are done. The Market Satisfaction Gaps that result are critical. What single change will advance your company the most in the Innovation Wave? I believe it is this: Don’t let your R&D conduct major product development work unless it has unbiased, unfiltered data on what customers do and do not want. Market Satisfaction Gaps provide this.

Third, several thousand people globally now use the science we developed and call New Product Blueprinting. They may not think of it this way, but they’re studying outcomes at the first three levels during qualitative Discovery interviews, the next three levels during quantitative Preference interviews, and the balance later. After the business case, they turn their attention to Problem 2: developing a solution for the critical outcome(s).

One last concept: Why will B2B suppliers enjoy more “science” than B2C suppliers? It’s

Why will B2B suppliers enjoy more “science”?
The Customer Insight Gap

B2C

Small B2C Insight Gap

Potential Insight

It’s difficult to predict how consumers will respond to non-economic benefits, e.g. amusement.

B2B

Today, this large B2B Insight Gap can provide competitive advantage.

Potential Insight

Knowledgeable, interested, economically-driven buyers can help suppliers design new products with confidence.

Typical Insight

Most B2B suppliers don’t use their own products & conduct limited VOC.
all about the Customer Insight Gap. Imagine we could measure a supplier’s ability to predict customer buying behavior, ranging from 100% guessing to 100% certainty. Since B2C company employees such as Apple engineers are consumers *themselves*… they typically have a high level of customer insight. But their potential insight is limited, since customers cannot predict what will amuse or entertain them. So there is a small customer insight gap between typical and potential insight.

On the other hand, B2B suppliers are often unfamiliar with their customers’ world. The pigment supplier knows much more about their own pigment than their customers’ paper-making or paint-making. But their potential insight is high because B2B customers have so much knowledge, interest, objectivity and foresight. This provides a large B2B customer insight gap. This is a wonderful competitive advantage if you close the gap first… and quite dangerous if your competitors beat you to it. In most markets today, suppliers still get to decide if they will be Toyota or General Motors in the Innovation Wave. Later, this choice will evaporate.

I recently had dinner with the president of a company we had trained in New Product Blueprinting. He told me about a couple of teams that had covered themselves in glory with great new products. Then he said, “Remember the team that just kind of … faded away? Well, I called the team leader, and said, ‘Guess what I have on my desk? It’s the product your team could have developed for the *exact* market you targeted… but I see it has our competitor’s name on it.’”

None of us can stop the Innovation Wave. We just have to decide if we’ll be on top of it, or it will be on top of us. Don’t fear the Wave. Seize the Wave. You can transform the way your employees enter customers’ worlds, gain new insights, and disrupt industries with amazing new products.

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**A Sobering View of Growth**

Picture this scene: Your business is putting together its operating plan for next year. This year’s growth was 5% and someone decides next year’s growth will be “double-digit.” Is there an implicit assumption that the 5% is “in the bag”? Turns out this is a bad assumption. Future growth comes from three types of growth, and you can only control one of them.

The first type is *inherited growth*. Years ago, clever employees at your company developed industry-leading products. They may have received their gold watches by now, but the fact is… most of your growth and profits come from a few great product platforms they created.
Don’t count on inherited growth continuing forever: Every year, purchasing agents and competitors are working hard to commoditize your specialty products.

The second type is market growth. On average, you and your competitors will grow at the same rate as the markets you serve. Don’t feel entitled to this growth. If a competitor develops a blockbuster product, you’ll be happy to minimize your decline in sales. Assuming otherwise is like 1970’s Detroit auto-makers assuming Japanese competitors would keep producing junk.

The third type is earned growth. This only occurs when you do a better job than all of your competitors in understanding and meeting the needs of a given market. The sobering realities are 1) this is the only growth you can control, and 2) your work here probably won’t have a big impact next year.

Wait… you don’t have much of a lever to pull on next year’s growth? That’s right. You can “buy” temporary growth with low prices, but profitable, sustainable growth takes time.

This may not be bad news for two reasons: 1) Developing B2B customer insight skills requires a level of commitment your competitors may be unwilling to make. Good. You need them to remain shortsighted. 2) While commercializing high-value new products takes time, you may enjoy a bonus: Many customers are impressed with the approach described in this paper. They feel “listened to” by an interested supplier… and this often leads to short-term opportunities.

Learning More

The AIM Institute created this science of B2B customer insight, and refined it while working (primarily) with Global 1000 companies since 2005. Thousands of practitioners worldwide have learned practical New Product Blueprinting tools through workshops or e-learning… and now apply these methods using software, job aids, and acquired skills.

To help your company Catch the Innovation Wave, consider these resources…

Dan Adams

Dan is the Founder of The AIM Institute, and developed New Product Blueprinting after working inside large B2B firms for 29 years. A chemical engineer, he holds many patents and innovation awards, including a listing in the National Inventors Hall of Fame. He authored, *New Product Blueprinting: The Handbook for B2B Organic Growth*.

1 Wikipedia, “List of countries by motor vehicle production.” 0.48Mil (Japan) of 16.49Mil (global) in 1960; 11.04Mil (Japan) of 38.56Mil (global) in 1980.

2 Amazon search: 4,879 new books (all formats) published during 2013 that included the keyword “innovation.” Excludes books unavailable from Amazon.


4 Stage-Gate® is a registered trademark of Stage-Gate Inc. This approach was developed by Dr. Robert G. Cooper.


6 *Improving New Product Development Performance and Practices*, American Productivity & Quality Center, 2003. 59% of companies studied spent 10% or less of total project spending in front-end work.


9 Teflon® is a registered trademark of DuPont. This fluoropolymer was accidentally discovered in 1938 by Roy Plunkett as he attempted to make a new refrigerant.