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Discounting With Discipline: How to Make Sure Your Discount Program Succeeds

Sudipto Banerjee

Serena Crivellaro

by Sudipto Banerjee and Serena Crivellaro

Companies facing falling demand—for individual products or across portfolios—typically think about increasing discounts and promotions to reinvigorate sales. This is a natural reaction, especially in an economic downturn, like the one unfolding in 2020. But when discount programs are not carefully crafted, the intended sales lift does not occur. In this paper, we outline six key considerations for sales and marketing executives and C-suite leaders when planning and executing discounts. With these considerations in mind, companies can respond to the current demand challenge, while minimizing the risk of unintended consequences. Sudipto Banerjee (sudiptobanerjee@KPMG.com) is Principal and Pricing & Commercial Excellence Leader at KPMG. He specializes in commercial transformation, including pricing (strategy, execution and enablement), sales growth (demand drivers, sales force effectiveness, channel management), and marketing effectiveness (ROMI, and promo effectiveness). Serena Crivellaro (serenacrivellaro@kpmg.com) is a Managing Director specializing in helping clients optimize pricing, sales and marketing strategies to increase revenue and profitability.

Companies facing falling demand—for individual products or across portfolios—typically think about increasing discounts and promotions to reinvigorate sales. This is a natural reaction, especially in an economic downturn, like the one unfolding in 2020. Consumers are cutting back[1] and are looking for lower prices. Sales people want to be able to offer discounts to match competitors, save a deal, or demonstrate goodwill to customers during a time of stress.

But when discount programs are not carefully crafted, the intended sales lift does not occur. Worse, discounts can wind up doing more harm than good—sparking price wars and inflicting long-term damage to brands, for example.

In our paper *Pricing strategy: foresight is 20/20*,[2] we discussed how the present economic situation has forced executives to make complex pricing strategy decisions. In this paper, we outline six key considerations for sales and marketing executives and C-suite leaders when planning and executing discounts. With these considerations in mind, companies can respond to the current demand challenge while minimizing the risk of unintended consequences. This updated approach is also designed to help leaders in both consumer and B2B markets meet the long-term challenges of the "new reality" created by the COVID-19 shock.

Six Considerations for Successful Discounting

In any environment, discounting with discipline helps companies ensure that discounts are clearly defined and designed to meet specific goals. The six considerations we present here represent an approach to discounting with discipline for today's markets. Three considerations—Strategy, Structure, and Communications—are internal factors. Three others—Market Expectations, Effects, and Lookbacks—relate to external factors, which cannot be directly influenced by companies. These external factors are extremely important, but often are an afterthought or overlooked entirely. The most important considerations are Structure and Effects and these should receive disproportionately more thought and attention (see Figure 1 on the next page). However, it is important to use all six considerations.

1. Based on an Informed Strategy

Leading companies develop a discounting strategy by clearly defining objectives – what will the discounts achieve? All too often, a discount plan is launched in a rush in reaction to a move by a competitor. That may be a necessity: to stay in business and remain competitive, a company may need to match the market discounting norm. However, we find that the most effective discount plans have a clear objective, against which results can be measured.

Typical strategic objectives include:

- Acquire new customers
- Increase sales volume and/or market share
- Retain customers who suddenly have limited spending power
- Liquidate inventory, particularly of perishable, expiring or seasonal goods
- To stay in business and match a market discounting norm

Companies also use discounts for narrower objectives such as information gathering (e.g., discounts to sign up for an account), grassroots marketing (referral discounts), or managing product assortment (steering volume across SKUs).

During COVID-19 we have seen many companies use discounts to sustain customer relationships. SiriusXM offered free streaming through mid-May to keep customers.[3] HBO created the "Stay Home Box Office" offer to bring in new customers. The offer, which ran through April, included free access to some of the most popular shows and was aimed at enlisting customers in HBO MAX.[4] Some discount strategies during the COVID-19 lockdown were aimed at helping cash flow—offering discounts for customers who paid in advance for post-lockdown restaurant meals and hair appointments, for example.

2. Consistent with Market Expectations

Discounts should also line up with market expectations. Customers, suppliers and competitors have certain expectations—mental models—for a brand. Sharp deviations from that model can be alarming. For example, if a company known for consistent pricing suddenly offers steep discounts, it can raise customer concerns about quality, signal potential cash limitations to suppliers, or suggest vulnerability to competitors. A classic example was JC Penney's bet on "everyday low prices"—an attempt to move away from the constant promotions that department stores use to stimulate sales. Instead of embracing the simplified pricing approach, shoppers were confused and the company abandoned the idea.[5]

3. Carefully Structured

There are many ways to offer discounts, which vary across industries. In B2B, volume discounts are common. In consumer, bundles, BOGO (buy one, get one), loyalty programs and simple price promotions are widely used. In general, companies should stick with the discounting tactics that have worked in the past and that the market expects.

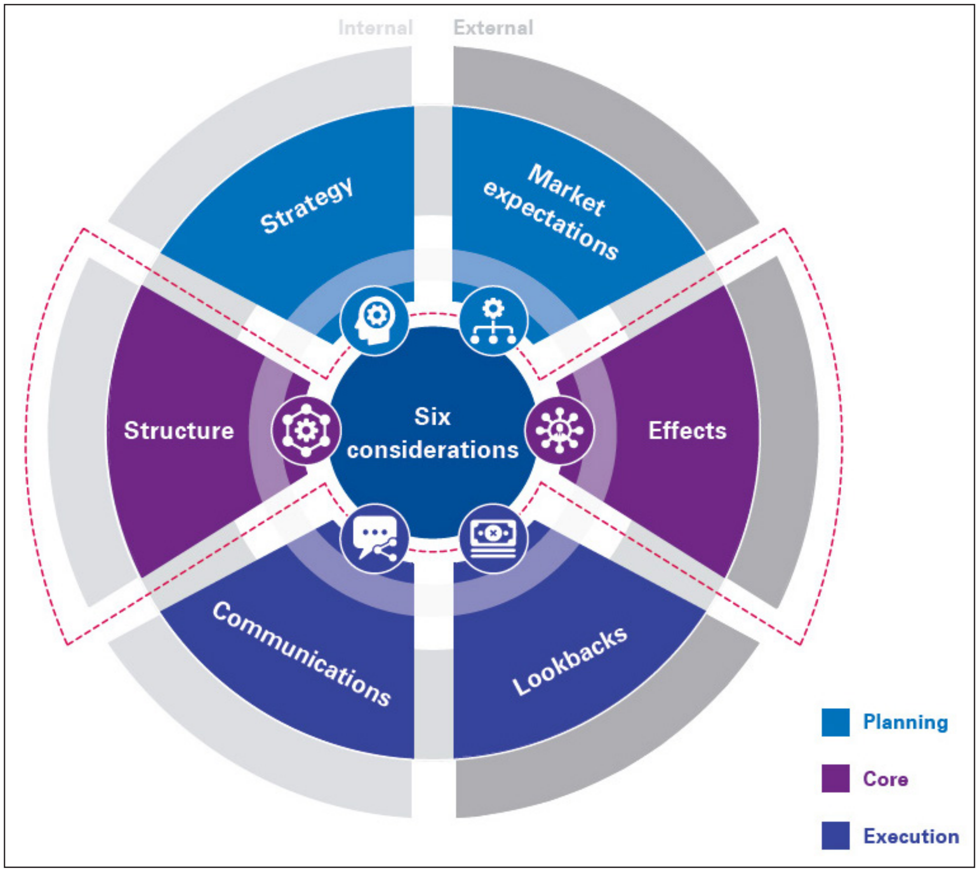
We identify three ways of structuring discount programs:

♦ **Fencing:** Bounding discounts by time or quantity helps provide the psychological trigger of scarcity (e.g., next month this deal won't be available). Online retailers have taken time-bound offers to a new level, flashing "pop-up" discount offers that are valid for minutes or hours. Fencing can also be about customer or product. Henry Schein, a dental supplies distributor, began offering discounts in March 2020, as business was slowing because of COVID-19.[6] But the offers were limited to smaller groups and independent offices, and focused on Schein's private-label products. Additional fencing dimensions include age and location. A note of caution on fencing: the offer should be carefully crafted to avoid anti-competitive or discriminatory pricing regulations.[7]

♦ **Quid pro quo:** It is critical to think through the "gives and gets" of discounting scenarios. When a B2B vendor offers a year-end rebate to its best customers, the quid pro quo is clear. But many companies fail to build explicit reciprocity into discounting. Without that, customers will feel they are getting something for nothing, which resets their expectations of fair pricing for the product or service. Common examples of reciprocity in consumer markets include discounts for longer term subscriptions, last season's items, or higher volume purchases and bundles. The economic downturn has generated some creative uses of quid pro quo. Hotels and airlines, for example, offered home-bound travelers prepaid gift cards that are redeemable for higher values in the future—the consumer pays now and gets a steep discount in the future.[8]

♦ **Stacking:** Behavioral economics tell us that stacking—applying a second discount on top of an initial discount—is a powerful lure. When shoppers see a 30 percent discount on an item that was already marked down by 20 percent, they believe that they are getting a better deal than a straight 50 percent discount.[9] In reality, they're getting less because the 30 percent is applied to 80 percent of the original price, not 100 percent. The lesson is that companies can increase willingness to buy by offering a series of discounts. Furthermore, researchers have found that the order of discounts matters: going from smaller to larger makes the second discount feel more generous. Certain major apparel re-

Figure 1: Six considerations: Pay particular attention to structure and effects



tailers have long practiced this approach. Stacking is very common in Asia, but relatively new in the rest of the world.

It pays to put sufficient effort into getting the structure of the discount right. The choice of structure should be tailored to individual customer needs and product characteristics, and may look different across business units, product lines, or customer segments. Offers can embody multiple structuring approaches (see sidebar: "Combining fencing and quid pro quo in one offer"). However, companies choose to structure discount offers, they should be based on awareness of external factors and an assessment of potential adverse effects.

Combining fencing and quid pro quo in one offer

Hubspot, a CRM software provider, is offering reduced pricing on small business solutions for 12 months.[10] The value of this offer—a discounted price for the basic bundle and free access to additional features for 90 days—is clearly communicated and reiterated at various points in the purchase process. This is effective fencing: focused on a specific type of customer (small business) and limited availability (12 months). The 12-month commitment is also an example of quid-pro-quo – lower pricing in exchange for a longer time commitment on the subscription.

4. Designed to Avoid Adverse Effects

Effective discounters always review proposed discounts and price moves for adverse effects. What are the risks of cannibalization? How could the offer backfire with customers? Getting a definitive answer to these questions is not easy, but companies can model potential reactions to identify better and worse paths.

At a minimum, we recommend assessing any discount program through these three lenses:

■ **Price war potential:** Discounts in highly competitive industries can set off a chain of price cuts. Or a poorly considered discount can result in a price stalemate (when leading players converge around a temporarily lower price). In either case, customers will note the new price and may hold out for it in the future. Price wars can attract new customers to the market or bring forward future purchases, but these positive effects rarely outweigh the value destroyed.

■ **Elasticity:** Price elasticity is defined as the change in volume caused by a change in price. Discounts pay off when products are sufficiently elastic that the additional sales offset the investment in discounting. In extraordinary times, the breakeven threshold may be lowered, but the principle still holds: lower price must increase sales by raising demand among existing customers or by adding new ones. Elasticity is affected today by both the slow economy and the impact of COVID-19. It is doubtful, for example, that discounts on office apparel, dress shoes or travel gear can generate the sales to make them successful—the price elasticity for these items has changed because people are not going to offices or traveling.

■ **Value destruction:** Discounting can destroy value in many ways—cannibalizing sales of similar products, stealing future revenue, or eroding brand equity. Several apparel retailers, such as Rag & Bone[11], responded to slowing sales in early 2020 with generous discounts (20 percent to more than 40 percent). These discounts reset customer expectations of acceptable pricing, and by summer, the company wound up raising discounts, to 40 to 60 percent. This risks causing damage to brand perception and the ability to ever charge higher prices. Fencing can help limit value destruction. For example, several automakers created time-limited discounts or payment deferral offers for consumers who had lost jobs because of COVID-19. Those limitations reduced the risk of resetting price expectations and eroding brand value.

5. Underpinned by Effective Communications

To be effective, discounting communications must both entice customers to buy and reinforce value. In the pre-purchase phase, communications should highlight the value of the discount to spark customers' desire and should employ behavioral economics. Researchers have found that that there is a "rule of 100." If an item sells for $100 (or less), consumers are more likely to be motivated by a percentage off—20 percent off of a $50 item has more appeal than $10 off. But for a pricey item, like a $2,500 computer, promoting the dollar amount ($500 off) is more powerful.[12]

"Pay what you can" pricing is a sophisticated discounting communications mechanism that actually reinforces brand value. Used by companies such as Everlane, a women's apparel retailer, and Noom[13], an online diet service, these offers present a choice of prices (representing different discounts levels) and indicate a recommended or most commonly selected price point. These offers ask the customer to assess what the product is worth to them. Additional messaging about fair pricing ("it costs us $xx to provide this trial, but pay what you think is fair!") motivates customers to stop looking to score the "best deal" and settle on a higher price point that reflects brand value.

In B2B markets, price negotiations are all about communicating product benefits so the sales rep can offer a smaller discount than the customer requests. This works best when the rep focuses on what is most valuable to the specific customer. The definition of value will vary by B2B customer type. Procurement teams will be looking to demonstrate cost savings, while engineers will be more attuned to technical specs and post-sale support, etc. The most skilled negotiators use the most valued feature as leverage: I can get you that great price, but not with access to 24/7 technical support.

Post-purchase communications are also important in discount programs. The invoice or receipt should include messaging reinforcing the pre-discount price to prevent customers from anchoring on what they just paid. Similar principles apply to year-end rebates and loyalty program summaries, which should serve to remind the customer of the value of the deal and the enduring value of the brand.

6. Informed by Lookbacks

Especially in an economic downturn when cash flow is a concern, it is important to monitor pricing performance to fix problems and inform future moves. Running discount tests through a price management tool can help identify which actions are working, which are not, and how they are likely to perform across products, customer segments, and over time. Early lookbacks can help identify any potential challenges in time to course-correct.

Especially in an economic downturn when cash flow is a concern, it is important to monitor pricing performance to fix problems and inform future moves.

By tracking performance at all steps of the purchase process, vendors can confirm how discounting drives incremental interest and sales or if additional communication or restructuring is needed. Companies that are most skilled in pricing track a number of discount-related metrics on an ongoing basis. These metrics include discount escalations, escalation-to-approval ratios, promotional effectiveness and net profit margins by product and customer.[14]

We also recommend monitoring customer sentiment via social media or via sales force outreach to understand how the discount is working. Is the offer really generating net new sales or is it cannibalizing future sales? What is happening to brand value perception? Are customers telling their friends and recruiting more buyers?

Conclusion

Given all this, where to start? What should companies do to implement effective discounts? The discounting consideration framework that we describe in this paper can also provide a roadmap for effective discount planning

1) **Create a plan:** Begin by defining your desired outcomes—an informed strategy—and thinking through the market expectations, then understanding how these factors may bound the moves available to you. The plan should take into account market dynamics today, which might be different than they were pre-COVID-19. Will customers come flocking when you lower the price? Will competitors retaliate? How do the answers to these questions determine which discounting options are most appropriate for you?

2) **Define the core:** This is when you determine the structure of the discount program that helps to achieve your desired outcome - and then play it forward by considering the possible effects. What are the financial and brand impacts? Use quantitative modeling and qualitative war gaming to refine and iterate the plan. What mechanisms can be used to reduce risk? What tools and data can help increase the likelihood of a favorable outcome?

3) **Follow through on execution:** So many companies stop at Step 2. For successful discounting, companies must also develop the communications for all stakeholders—employees, customers (by segment), etc. to amplify the message and proactively mitigate potential sources of tension. Once the program launches, start conducting lookbacks to measure performance over time and across the entire portfolio. What pockets of discontent are likely to flare up? How are we managing the impact on discounted and un-discounted products? Close the loop by integrating any findings from lookbacks into strategy setting and reconsidering market expectations for the next round of discounts.

There are situations, especially in this unusual economic environment, where no discount structure can meet your desired objectives. In this cases, we recommend exploring other pricing options, which are described in some of our other recent papers. ❖

Endnotes

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Pricing and New Product Development

by Tim J. Smith, Ph.D., CPP

Decision makers need a clear roadmap for integrating pricing into the New Product Development (NPD) process. This paper provides a roadmap for how best to integrate pricing in the new product development process, including timing of execution and methodologies and resources to deploy. Tim J. Smith, PhD (tsmith@wiglafpricing.com), is the founder and CEO of Wiglaf Pricing, an Adjunct Professor of Marketing and Economics at DePaul University, Academic Advisor for the CPP designation, and the author of Pricing Done Right *(Wiley 2016) and* Pricing Strategy *(Cengage 2012).*

Challenge

Decision makers need a clear roadmap for integrating pricing into the New Product Development (NPD) process.

Directives to conduct pricing research early in the NPD process often go unheeded, due to a lack of specificity in the recommendation. Moreover, expending resources on a full pricing research effort long before launch is hard to justify given expected market environment changes between NPD initiation and NPD launch.

The common result is to delay price research until shortly before launch, reducing the usefulness of the pricing research for decisions regarding target market selection, financial forecast expectations, and offering definition, distribution, and positioning. Decision makers can do better.

Instead of a blasé directive, decision makers require a clear roadmap for integrating pricing research into NPD. This roadmap should provide criteria for guiding decisions regarding the timing of execution, methodologies to deploy, and resources deployed. It should reflect an orderly and logical integration of pricing research into the NPD process.

Clayton Christensen of Harvard Business School reports that:

- 95% of new products launched every year fail.
- Poorly developed price expectations and decisions during the new product development effort are a significant underlying cause of this failure.

Recommendation

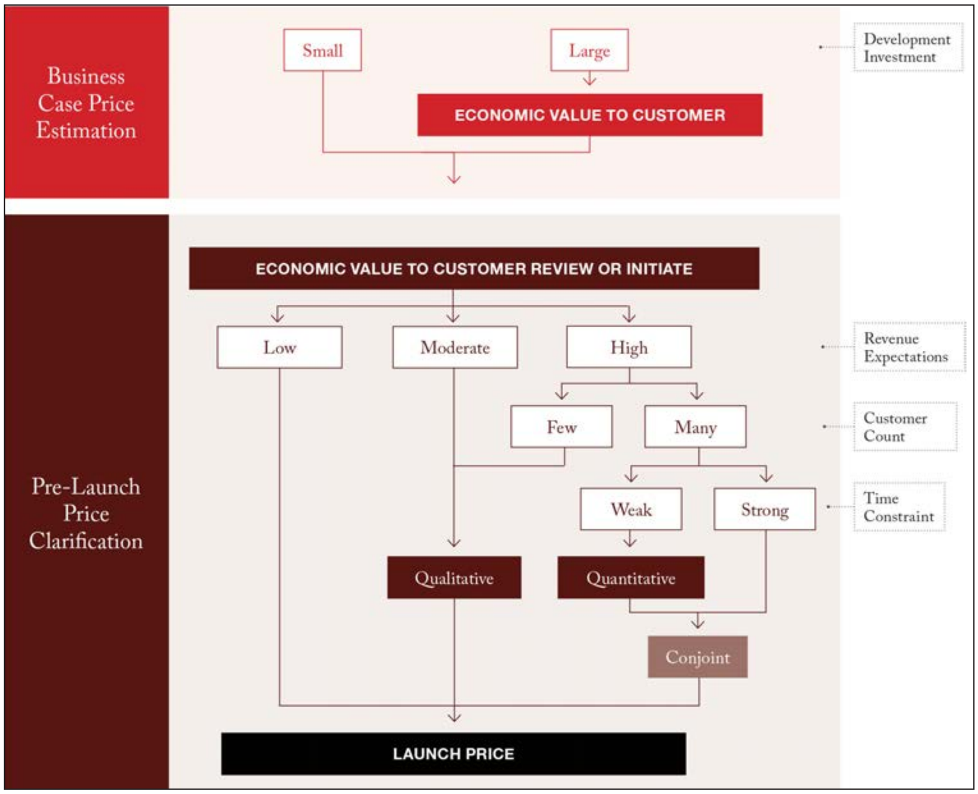
Decision Criteria

As seen in Figure 1, the rigor of pricing research required at individual phases of the NPD process is contingent upon:

- The NPD investment requirements
- The expected revenue of the future NPD offering
- The suitability of the methodology for the market
- Time constraints

NPD efforts that have high investment

Figure 1



requirements and high revenue expectations deserve greater attention. High customer concentration limits the range of potential pricing methodologies to apply. Time constraints can drive risk-mitigation strategies which tradeoff accuracy for timeliness.

Methodologies and Resource Requirements

Three methodologies have proven appropriate and effective across a variety of industries for pricing NPD offerings. In increasing order of resource requirements, these are:

1. An analysis of the Economic Value to Customer (denoted as EVC in the NPD Pricing Roadmap) using internal information
2. Primary qualitative market research to measure price expectations and augment internal information in the analysis of the Economic Value to Customer with the voice of the customer
3. Conjoint analysis, a specialized form of primary quantitative market research that is well suited to reveal a priori price optimization

These three pricing methodologies are not needed for every NPD process, much less are they required for all specific phases within a specific NPD effort.

Integration Timing

Early in the NPD process, when decision makers are considering an NPD investment, a price estimate is required to define the business case. If the NPD investment is large, an analysis of the Economic Value to Customer is recommended. If the NPD investment is small, managerial consensus alone may suffice.

Late in the NPD process, when decision makers are preparing for launch, price clarification is required. As the first step to price clarification, we recommend either updating the previously-conducted analysis of the Economic Value to Customer to reflect changes in management insights and market environments, or conducting the Economic Value to Customer research if this has not already been done.

Revenue Expectations

Deciding whether to take additional price clarification steps to provide greater accuracy and reliability in pricing is primarily contingent upon the expected revenue and secondarily contingent upon market suitability and time constraints.

- For NPD offerings with low revenue expectations, the analysis of the Economic Value to Customer suffices for launch price decisions.
- For NPD offerings with moderate revenue expectations, qualitative research to augment information of the Economic Value to Customer and measure price expectations is recommended as well.
- For NPD offerings with high revenue expectations, the decision criteria to execute pricing research beyond the analysis of the Economic Value to Customer is contingent upon market suitability and timing constraints.

An NPD effort can take years to complete and require significant financial investments in some cases and far fewer resources in others.

Customer Count

If the market density is low, meaning there are few customers in the potential market, qualitative research to inform the Economic Value to Customer and measures of price expectations is recommended.

If the market density is high, meaning there are many customers in the potential market, both qualitative research and conjoint analysis are recommended in general.

If the market has many customers but the launch timing is too soon to allow for both pricing methodologies to be applied, we recommend forgoing the qualitative research and proceeding directly to conjoint analysis. Here, decision makers are trading off the risk of the conjoint analysis yielding inaccurate results (due to insufficient foundational research) with the risk of being unprepared at launch (due to running out of time).

Analysis

NPD Process

Risk Mitigation and NPD

An NPD effort can take years to complete and require significant financial investments in some cases and far fewer resources in others.

To mitigate the risk of investing in a major NPD effort and ultimately failing to deliver a positive return on investment, decision makers have long relied on a series of sequential decisions to determine which developments are worthy of further investment.

Beginning in the 1940s, an approach of dividing NPD into a series of phases separated by decision points began to become formalized. Today, this approach of making sequential decisions, acknowledging that past investments are sunk costs which have no bearing on further investment decisions, is well established and continues to be developed and refined. Some companies have even applied real-options analysis to guide decisions at the multiple decision points.

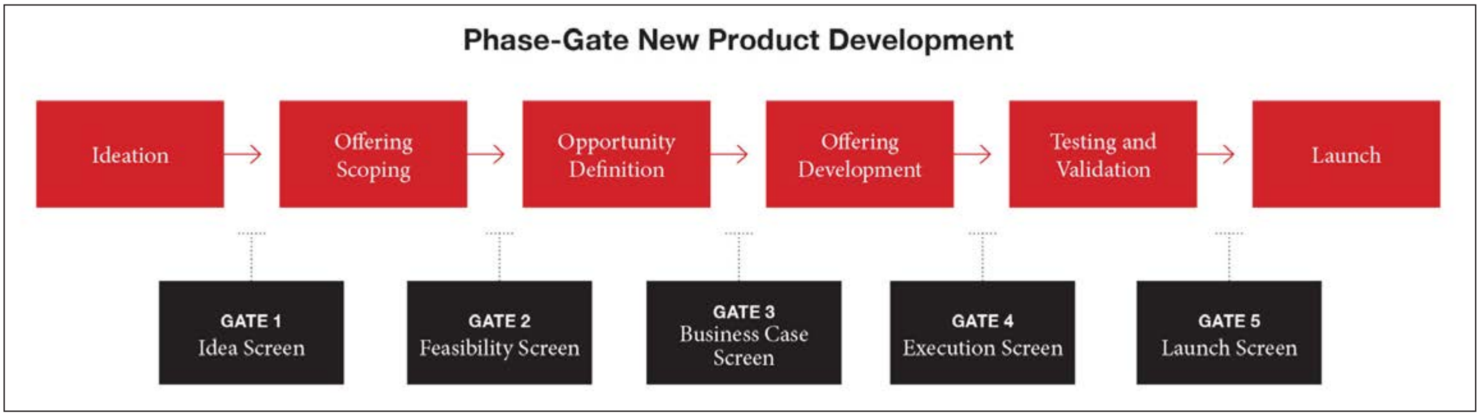
The Phase-Gate NPD process is a modern managerial template that separates phases of development effort with managerial decision points. Companies often customize this template to better suit their needs and many variants exist; we will stick with the most widely known Phase-Gate template.

Phase-Gate NPD Process

The Phase-Gate template isolates five phases of effort prior to launch with five decision screens that act as gates which the effort must pass through before entering the next phase. The phases and decision screens are:

- Ideation followed by the Idea Screen
- Offering Scoping followed by the Feasibility Screen

Figure 2



- Opportunity Definition followed by the Business Case Screen
- Offering Development followed by the Execution Screen
- Testing and Validation followed by the Launch Screen

Each screen is an opportunity to adjust or cancel further developments. See Figure 2.

In the Ideation phase, offering development opportunities are identified for potential company pursuit. Brainstorming, market feedback, and design thinking are common approaches to development ideation. Following the Ideation effort, ideas are screened for their merits. This is the first gate an NPD offering must pass through.

In the Offering Scoping phase, the scope of the required NPD effort to bring the idea to fruition is defined. This is followed by a screen of the offering concept based on its technical and practical feasibility. This is the second gate an NPD offering must pass through.

In the Opportunity Definition phase, the business opportunity of bringing the offering to market is clarified. Defining the business opportunity of the NPD offering requires estimating the anticipated cost and timing of development, variable costs once launched, and revenue impact after launch over a reasonable market-relevant time period. Revenue estimates require estimates of price and selling quantities. This phase prepares the offering to be screened according to the business case for executing the NPD effort. This is the third gate an NPD offering must pass through.

In the Offering Development phase, proper product development gets underway. This phase also includes the development of marketing, sales, and production plans. These sales and marketing plans will require definitive pricing information and estimates of sales expectations. Before moving on, the NPD offering and associated business plans are screened for completion of execution. This is the fourth gate the NPD offering must pass through.

Finally, in the Testing and Validation phase, the offering as well as its marketing, sales, and production plans are verified for market readiness at launch. This is followed by a launch screen for market preparedness. This is the fifth gate the NPD offering must pass through.

NPD offerings passing through all gates are then launched. Post-launch, companies often conduct a review of the NPD process to identify areas for further improvement. As for the NPD offering post-launch, it now enters typical sales, marketing, production, and financial management.

Pricing and the NPD Process

In the Phase-Gate template, two specific decision points identify the need for pricing information, as seen in Figure 3. Gate 3, prior to actual development, calls for a Business Case screen that will require price and selling quantities estimates. Gate 4, prior to final testing and validation, calls for an Execution screen in which the business plan, and therefore the actual launch pricing and sales expectations, is required.

These two NPD decision screens requiring pricing and selling quantity information differ greatly in their timing and required accuracy.

Business Case Pricing

The Business Case screen occurs early in the NPD process, perhaps years before launch, and requires only an estimate of pricing and selling quantities. At the Business Case screen, the precise cost, timing of development, forecasted production costs, prices, and selling quantities are neither known nor required. Estimates of these factors will suffice for making the NPD investment decision.

Consider that, in the time between the

Figure 3

Business Case screen and the actual Launch screen, the market environment should be expected to change. Changes in competition, economic conditions, technology, market composition, social and cultural orientations, and legal and regulatory environments occur unexpectedly with dramatic impacts on specific offerings. These market environment changes, as well as simultaneous production input factor changes, can make a mockery of claims to know exact prices and selling quantities of an offering early in the NPD process.

As such, only good estimates are possible at the Business Case screen. Fortunately, good estimates can be made efficiently and will suffice in informing sound decision making regarding investing in an NPD effort.

cision points differ greatly in the accuracy required and therefore the appropriate effort and resources to apply in developing pricing information. Early in the NPD process, Business Case Price Estimation is required to inform an investment decision. Late in the NPD process, Pre-Launch Price Clarification is required to engage the market and drive financial performance.

For Business Case Price Estimation, the pricing methodology deployed should require minimal resources. For Pre- Launch Price Clarification, the pricing methodology deployed should deliver more robust results with an efficient resource allocation.

Fortunately, pricing methodologies differ in their resource requirements and accuracy. Therefore, it is possible to map the pricing methodologies into the NPD process in a rational manner.

Fortunately, pricing methodologies differ in their resource requirements and accuracy. Therefore, it is possible to map the pricing methodologies into the NPD process in a rational manner.

Pre-Launch Pricing
The Execution screen occurs late in the NPD process in preparation for launch. This decision point requires more accurate and definitive pricing information. Pricing NPD offerings pre-launch must be more accurate because it will be the actual price which determines financial performance and market acceptance, and a small pricing error will have an oversized impact on profitability and selling quantities. Also, pre-launch pricing must be more definitive as it will be the actual prices used for customer engagement, including marketing material and sales communication.

As such, decision makers should require greater precision and higher confidence in pricing pre-launch at the Execution screen. These heightened requirements consequently increase the appropriate effort and resources to deliver pricing accuracy.

NPD Pricing Requirements
Thus, the Phase-Gate NPD process identifies two distinct decision points requiring pricing information. These two distinct de-

Business Case Price Estimation

Informational Requirements and Expenditure Contingency
The Business Case for investing in the NPD effort is a description, including quantitative financial projections, of the market opportunity. Constructing the Business Case requires describing the overall target market, identifying market segments by price and offering sensitivity, and defining the customer addressable horizon.

The scope of the NPD offering in comparison to the anticipated competing alternatives has a material impact on the customer addressable horizon. Specifically, differences in the features, benefits, and resulting economic emotional impacts of the NPD offering in comparison to its competing alternatives will influence the determination of the customer addressable horizon and the price the NPD offering can capture from that market segment.

To develop the Business Case, decision makers can rely on informal or formal processes. If the NPD investment is low, a simple informal development of management consensus will likely suffice. If the NPD investment is high, a more formal methodology should be applied to deliver greater clarity, higher quality, and more accurate estimates.

Economic Value to Customer is the cost-effective methodology for building the business case, and sometimes the best approach to launch pricing itself.

Economic Value to Customer Outcomes and Resource Requirements
Economic Value to Customer requires identifying the anticipated competing alternatives and their price points. It then examines the positive and negative differential benefits between these competing alternatives and the NPD offering. Using these insights, Economic Value to Customer clarifies the market segments that would be attracted to the focal offering, the value they would gain by using the offering, and estimations of the capturable price per segment for the company. With an understanding of the capturable price per segment, managers can evaluate price segmentation strategies, price optimization, and the customer addressable horizon.

For the Business Case, the Economic Value to Customer can be informed by secondary market research sources, business intelligence, and managerial insights. By using these extant and internal informational sources, the resource requirements for executing Economic Value to Customer are minimized.

As seen in Figure 4, the Economic Value to Customer methodology using extant and internal informational sources is a nine-step process.

1) **Opportunity Definition** identifies the target market and market segments, competitive alternatives, points of differentiation and anticipated variable costs.

2) **Value Drivers** convert the verbal statements regarding differential benefits into quantitative equations to be informed by facts that result in the economic value of individual points of differentiation.

3) **Fact Collection** gathers secondary market research, business intelligence,

and managerial insights for use as inputs into the value drivers.

4) Economic Value to Customer defines the value created with the new offering as the price of the competing alternative plus the positive differential benefits and minus the negative differential benefits. If the impact of the competition and differential benefits varies between market segments, the Economic Value to Customer is calculated for all relevant market segments. Economic Value to Customer can be described as the value-on-the-table delivered by the focal offering.

5) Capturable Value is estimated from the Economic Value to Customer in a manner which enables the company to capture the highest price possible while leaving sufficient surplus value to induce purchase.

6) Price Segmentation defines the segmentation hedges, if any, that enable the company to extract a higher price from those market segments with a higher capturable value while simultaneously providing a lower price to those market segments with a lower capturable value.

7) Price Optimization uses tradeoffs between prices and anticipated quantities to identify the most advantageous price to meet the company's goals.

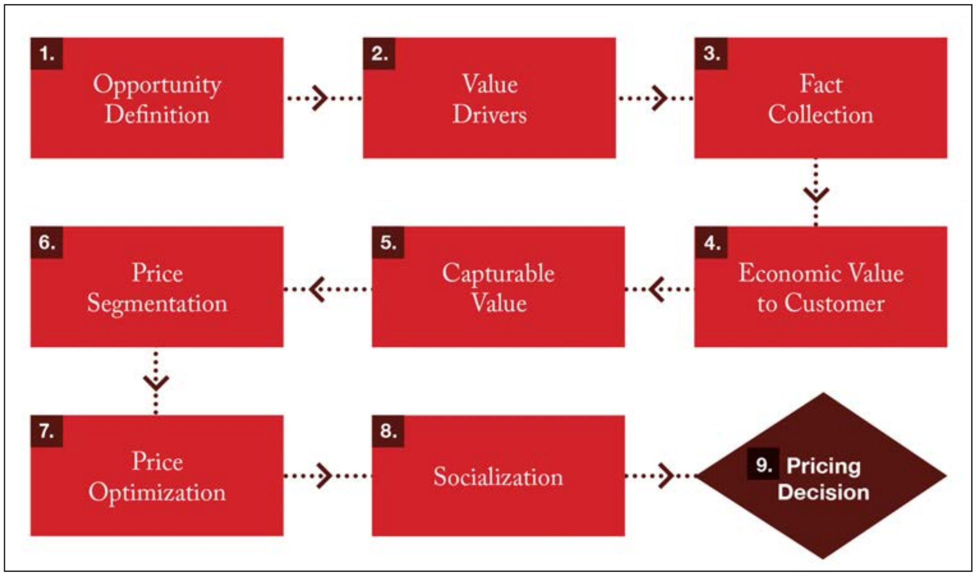
8) Socialization enables discussions regarding the market alignment, facts collected, and quantitative modeling necessary to make improvements to the analysis or otherwise create organizational alignment.

9) Pricing Decision is the outcome of the Economic Value to Customer methodology. At this step, executives decide price and selling quantity expectations.

Pre-Launch Price Clarification

Pre-Launch, decision makers require actionable pricing information for a definitive pricing decision. While the Economic Value to Customer sometimes sufficiently delivers that information, many times executives will demand greater precision and confidence. Two further market research techniques can be fruitfully deployed to deliver greater pricing clarity. These are qualitative and quantitative primary market research.

Figure 4



Before calling for primary market research however, we always recommend analyzing the Economic Value to Customer with extant and internal information sources. The design of primary market research for pricing is contingent upon the information delivered by an internal analysis of the Economic Value to Customer. Economic Value to Customer clarifies the hypotheses to test and the questions to be informed. Without a basic understanding of the Economic Value to Customer, managers increase the risk that the research design is flawed and therefore the research results will be useless or meaningless.

Qualitative primary market research, if appropriate, is the recommended first next step methodology to deploy after conducting Economic Value to Customer informed by extant and internal information. Qualitative market research techniques include focus groups and one-on-one executive interviews. Focus groups dominate in consumer markets while executive interviews dominate in business markets.

Though this qualitative research is so named due to its reliance on verbal discussions with informants, much useful quantitative information and reasonably accurate measurements can be efficiently gathered through such research. Moreover, qualitative research can deliver highly useful information that cannot be gathered efficiently through quantitative research.

Quantitative primary market research, if appropriate, is the recommended final methodology to deploy. Qualitative market research techniques imply market surveys. For pricing research, conjoint analysis is the recommended specific format of quantitative research to deploy.

For both qualitative and quantitative pricing research, we recommend a double-blind interview approach. "Blinding" refers to the deliberate removal of identifying information so that the informant or respondent does not know who is sponsoring the market research. This reduces potential answer bias. "Double-Blind" refers to additionally removing identifying information of the informants and respondents so that the research sponsor does not know who is providing the information. This is done to create a safe space for the informants and respondents where they feel the information they provide will not be used directly against them, and as such they provide information more honestly and thoroughly.

Qualitative Research for Pricing

Focus groups and executive interviews efficiently and effectively inform pricing of NPD offerings in many situations. The qualitative pricing research can deliver both price expectation metrics and informational inputs into pricing from the Economic Value to Customer.

Measurements of customers' price expectations can be taken with Gabor-Granger or Van Westendorp Price Sensitivity Meter techniques. Both techniques can meaningfully and reliably produce results with small sample sizes typical of qualitative research. These price expectations techniques measure what customers instinctually desire to see once the NPD offering is in the market.

Importantly, academic research and business experience indicate that price expectation measurements are not the same as the market's willingness to pay. Despite this shortcoming, these techniques' brevity and simplicity make them easy to incorporate into qualitative research, and detecting price expectations does provide a data point for decision making.

Often, extant and internal informational sources fail to address specifics required in the Fact Collection step in the Economic Value to Customer, leaving the Value Drivers to be informed by management estimates alone. In these situations, qualitative research can solicit specific facts from the informants to be used as inputs into the Value Drivers of the Economic Value to Customer. This leads to a more robust estimate of the Capturable Value as well as Price Optimization.

Specific competitive facts often gathered from qualitative research include the importance and relevancy of the competing alternatives and differential benefits as well as the prices of these competing alternatives. Specific business case facts often gathered from qualitative research include a variety of input parameters used in the value drivers. Both sets of facts inform the understanding of the Economic Value to Customer.

The price generated from price expectation measurements (such as Gabor-Granger and Van Westendorp) and that from market-informed Economic Value to Customer generally disagree with each other. However, both are valid. Recall, both are developed from primary market research and provide an accurate representation of appropriate prices. However, they represent two very different facts.

Price expectation measurements reveal the intuitive price at which customers would desire to purchase. On the other hand, Economic Value to Customer measures the value created and delivered to customers and estimates the price that should be captured.

One could say Economic Value to Customer reveals what customers should pay while price expectation measurements reveal what customers want to pay. What customers will actually pay generally lies between these two data points.

Decision makers must navigate this uncertainty as pricing is a decision that should be informed by a mosaic of facts. No singular measurement, regardless of how well it is designed, will perfectly reveal the optimal price for NPD offerings. But measurements, sometimes multiple measurements, will reduce the potential of making a significant pricing error, and therefore increase the likelihood of success and profits.

Focus groups and executive interviews rely on discussions with informants to inform both specific research questions and broader, more open-ended, research questions. The value of qualitative research lies in the depth of the discussions held, and therefore the depth of the facts uncovered. Through discussions with well-informed informants, quantitative information can be gathered along with qualitative insights.

The qualitative market research process is well documented across many sources. Here we simplify it to a six-step process, as seen in Figure 5:

1) Defining the **Research Questions and Hypothesis** to test.

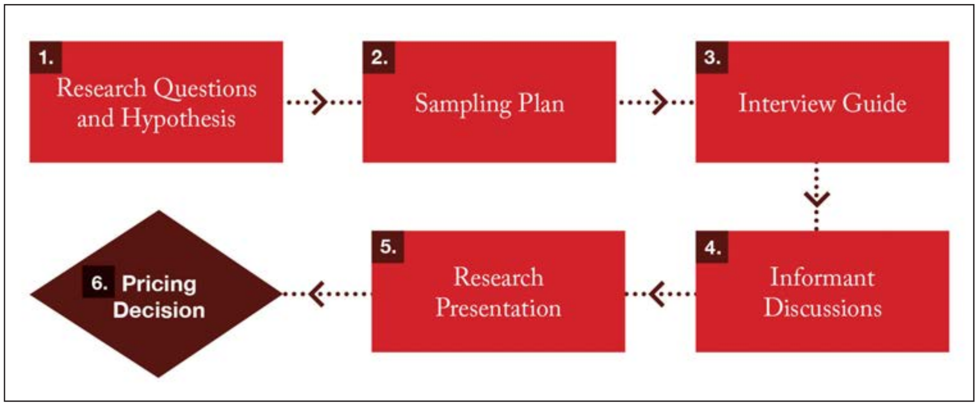
2) Defining the **Sampling Plan** including the number and type of informants. The sample size is generally small but large enough to ensure the informants collectively hold the information being sought and enables detection of potential market segments. The informants themselves should be representative of the target market and hold the necessary information to be collected. This sampling plan is then converted into a set of screening questions to ensure the informants meet the desired criteria.

3) Developing an **Interview Guide** to guide the interviewer in their interaction with the informants. For pricing NPD offerings, the interview guide begins with questions to detect the relevancy and importance of various competitive alternatives and differential benefits, continues by collecting data that is used as an input parameter in the Economic Value to Customer analysis, and ends with a price expectation study. If not performed in the screening questions, general background questions useful for market segmentation are included at the end. A strong interview guide will also identify areas to probe, break points to explore, different questions to raise with informant subsets, and conversation timing to ensure all research objectives can be addressed in the allotted time.

4) Holding **Informant Discussions** through either focus groups or executive interviews. The discussions are transcribed, and the transcription is then rendered double-blind.

5) Developing a **Research Presentation** to address the research question and hypotheses. The results generally include

Figure 5: Qualitative Research for Pricing Methodology



quotations from informants as well. For pricing NPD offerings, the research results will also include the results of the price expectation measurements as well as the research-informed Economic Value to Customer.

6) Reaching a **Pricing Decision**. At this step, executives decide price and selling quantity expectations, now empowered by information gleaned directly from the market.

Quantitative Research with Conjoint Analysis

To move beyond estimates of the Economic Value to Customer and measurements of customers' price expectations, academic research and business best practice call for a third research approach: conjoint analysis.

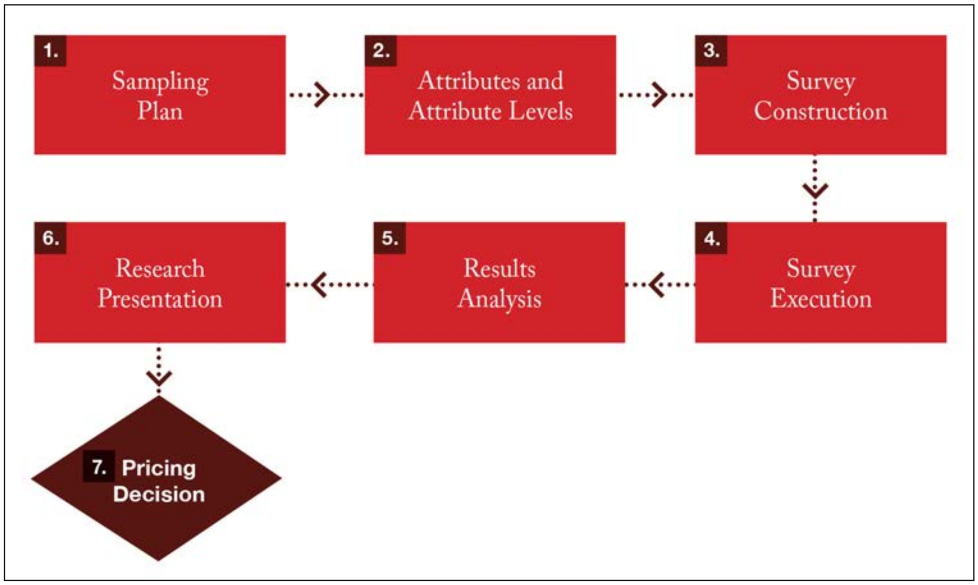
Conjoint analysis is a quantitative research approach relying on surveys that is used for pricing NPD offerings with higher precision than that provided by price estimation techniques and Economic Value to Customer.

Conjoint analysis quantifies the part-worth utility function of specific attributes and attribute levels by survey respondent. It assumes the value, as measured by utility, of an offering is the sum of the part-worth utilities of its attributes. By using price as one of the attributes, conjoint can reveal the tradeoffs customers make between price and perceived value.

From the part-worth utility functions, the tradeoffs customers make between the NPD offering and competing alternatives as a function of price can be plotted. This is known as a plot of the choice share as function of price and can be interpreted as the expected demand curve. Given a demand curve, researchers conduct price optimization.

Other outputs of the conjoint analysis include the quantification of the relative importance of different offering attributes and attribute levels, and perceptual maps of offering concepts. These findings are useful for clarifying marketing communications and sales messages as well as understanding the importance of competing ideas for potential future NPD efforts.

Figure 6: Conjoint Analysis for Pricing Methodology



In construction, conjoint analysis for pricing differs greatly from other, more standard, quantitative market research surveys and simple price expectation measurements. Specifically, it requires respondents to make multiple tradeoffs between different offerings composed of different attributes at different prices. By driving respondents to select between alternative offerings, this approach better simulates an actual purchasing decision, and therefore reveals a more accurate understanding of customer priorities and willingness to pay.

The conjoint analysis research process is well documented across many sources. In Figure 6, we simplify it to a seven-step process:

1) Sampling Plan defines the number and type of respondents. The sample size should be large enough to ensure statistical confidence. The respondent profiles should require representation of the target market and informed insights on the value of potential benefits and features, collectively known as attributes. As before, the sampling plan is converted into a set of screening questions to ensure the respondents meet the desired criteria.

2) Attributes and Attribute Levels define the dimensions under study in the conjoint analysis. In construction, the researcher must take care to reduce the number of attributes and attribute levels to avoid survey fatigue but ensure both are sufficiently complete to address the research hypothesis and questions.

3) Survey Construction includes coding the individual attributes and attribute levels. Given modern technology, the survey construction usually requires coding on specialized software. With this software, one may include verbal, visual, auditory, or video attributes. Using orthogonalization routines, the number of tradeoffs required from the survey is greatly reduced, thus reducing the potential of survey fatigue.

4) Survey Execution requires distributing the survey to the sample.

5) **Results Analysis** includes attribute level utility, attribute importance, perceptual maps, and choice curves used to simulate demand and conduct price optimization.

6) Research Presentation shares the results for socialization in preparation for decision making.

7) A **Pricing Decision** regarding the pricing and quantity expectations is now made with a highly accurate understanding of the market's understanding of value and trade offs with price.

Pricing Research Investment

Decision Map

In the analysis shown in Figure 7, we have identified two specific decision points in the NPD effort that require pricing input and three different methodologies to apply for pricing NPD offerings. We now construct the logical roadmap to determine when to use which pricing methodology in NPD. This will result in the NPD Pricing Roadmap identified in the recommendations.

The two decision points for reviewing pricing research are:

1. Business Case Price Estimation required early in the NPD
2. Pre-Launch Price Clarification required late in the NPD

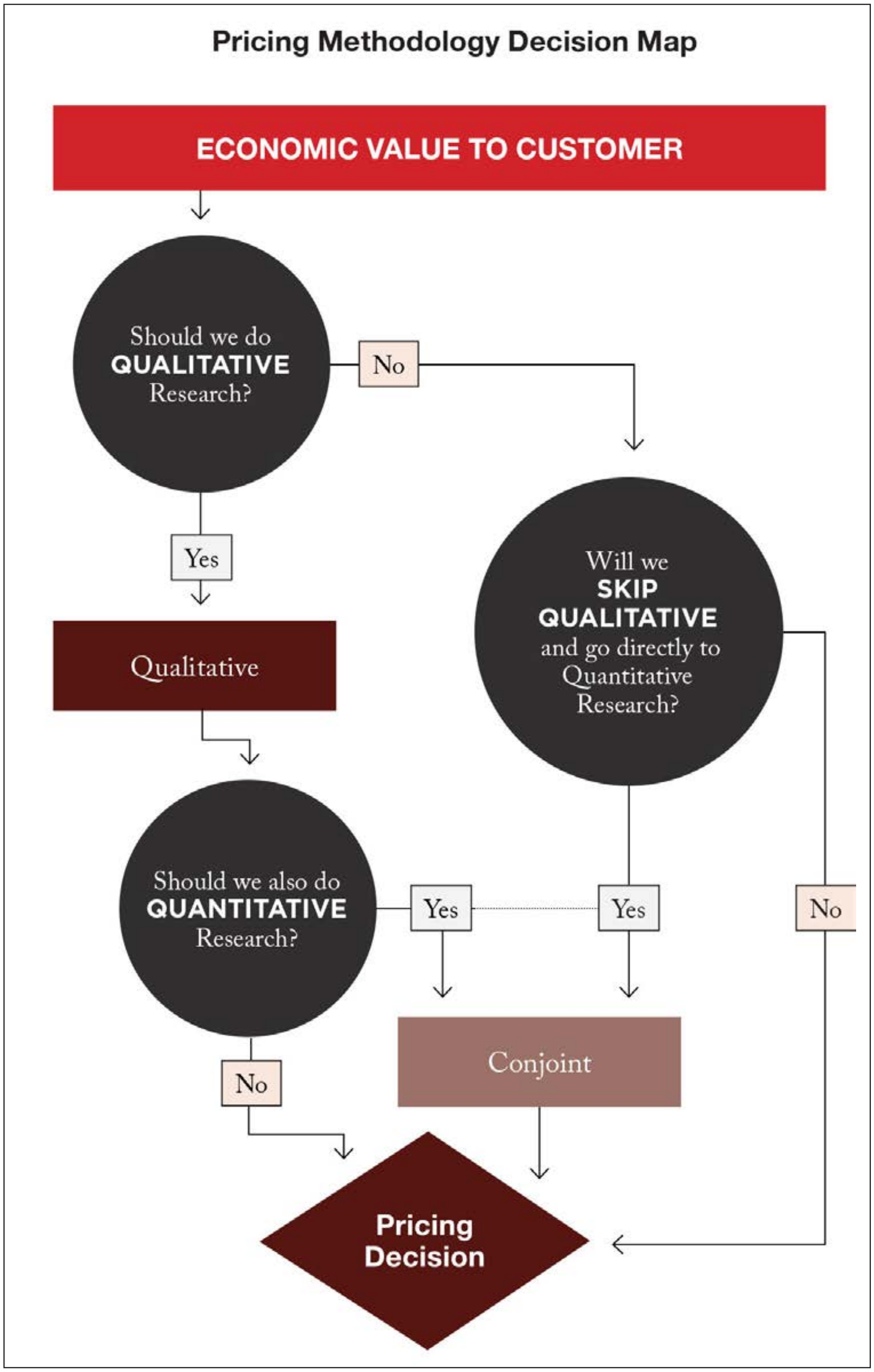
The three recommended pricing methodologies to apply in the NPD effort are, in order of sequence:

1. An analysis of the Economic Value to Customer with internal information
2. Primary qualitative market research to measure price expectations and augment information in the analysis of the Economic Value to Customer
3. Conjoint analysis, a specialized form of primary quantitative market research that is well suited to reveal the optimal price

Not every NPD requires all pricing methodologies to be applied. Pricing research consumes scarce resources of money, time, and human effort. Some NPD projects deserve only minimal resources applied to pricing while others will benefit from greater resource expenditures.

The monetary and timing budgets required for each of the three methodologies varies. An analysis of the Economic Value to Customer with internal information is the lowest cost and fastest approach. Qualitative market research requires a moderate monetary and larger time budget. Quantitative research with conjoint analysis requires a larger monetary budget yet a similar time budget as qualitative market research. See Figure 8 on the next page.

Figure 7



Fortunately, the effective execution of each subsequent pricing research methodology relies upon applying the information clarified in prior approaches. The research design for qualitative and quantitative pricing research requires identifying the uncertainties and hypothesis to tests. Analyzing the Economic Value to Customer with internal information first directly defines these uncertainties and hypotheses.

As such, the roadmap for pricing in new product development should begin with an analysis of the Economic Value to Customer with internal data sources. Given time and budget, it is recommended to continue through with qualitative market research followed by quantitative market research.

Specific variations to the later part of this roadmap are needed to accommodate key business factors. Key business factors that should determine the level of pricing rigor to apply to new product developments include financial, market density, and timing. (See Figure 9.)

Financial factors include the cost of NPD and expected revenue once launched. The market density factor relates to the potential to conduct quantitative research with a sufficient sample size. Timing factors include the duration of the NPD effort, thus the time budget for completing the research and decision making.

Investment decisions in NPD requiring large expenditures of time and money deserve higher scrutiny of the validity of their business case than those requiring less expenditures. As such, the key determinant for rigor needed for the Business Case Price Estimation is the size of the NPD investment. Large NPD investments should require price estimates made from an analysis of the Economic Value to Customer. Smaller investments may forgo this expense until a preparing for launch.

Prior to launch, the anticipated revenue of the focal product is the primary criteria determining which pricing methodology to apply. Consider, each pricing methodology discussed provides increasing accuracy but at a cost of time and money. A small percentage improvement in accuracy for a hundred million-dollar NPD offering is far more valuable than a similar improvement on a single million-dollar NPD offering. Thus, as a simple rule, higher revenue anticipation for the focal product requires higher confidence and accuracy in pricing and therefore merits greater scrutiny.

As a foundation for all NPD offerings, an analysis of the Economic Value to Customer with internal information should be conducted during development if not already completed at the business case screen. If it has been completed prior to development, it should be reviewed and updated with any new information that may have been gained during development. See Figure 10.

Figure 8

Pricing Methodology	Monetary Budget	Timing Budget
Economic Value to Customer with internal information	Low	Low
Qualitative research measuring price expectations and informing Economic Value to Customer	Moderate	High
Quantitative research with conjoint analysis	High	High

Figure 9: NPD Pricing Contingency 1 – Development Investment

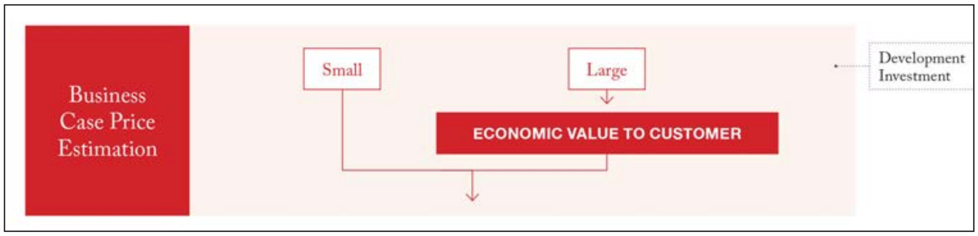
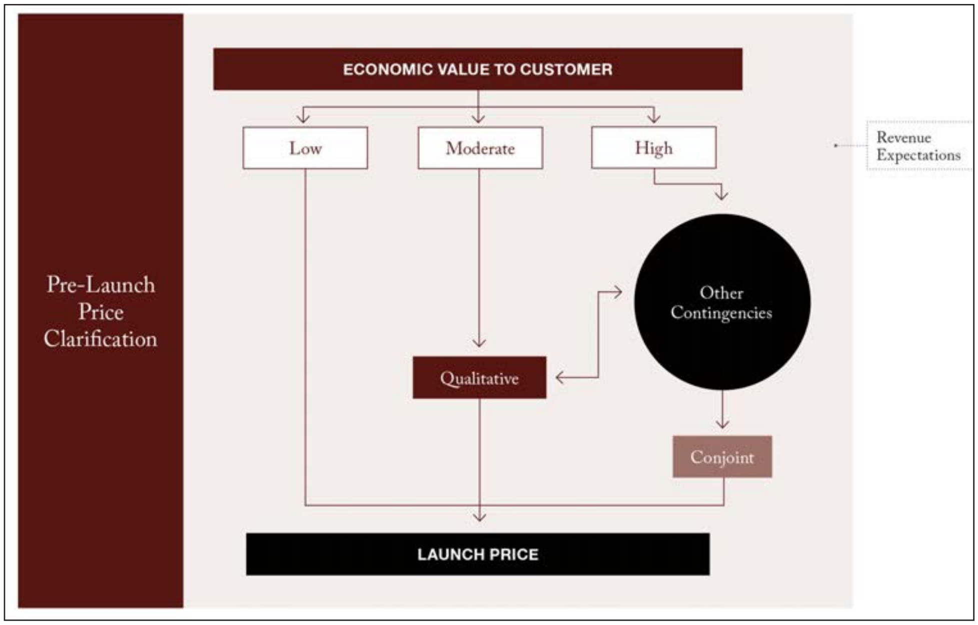


Figure 10: NPD Pricing Contingency 2 – Revenue Expectations



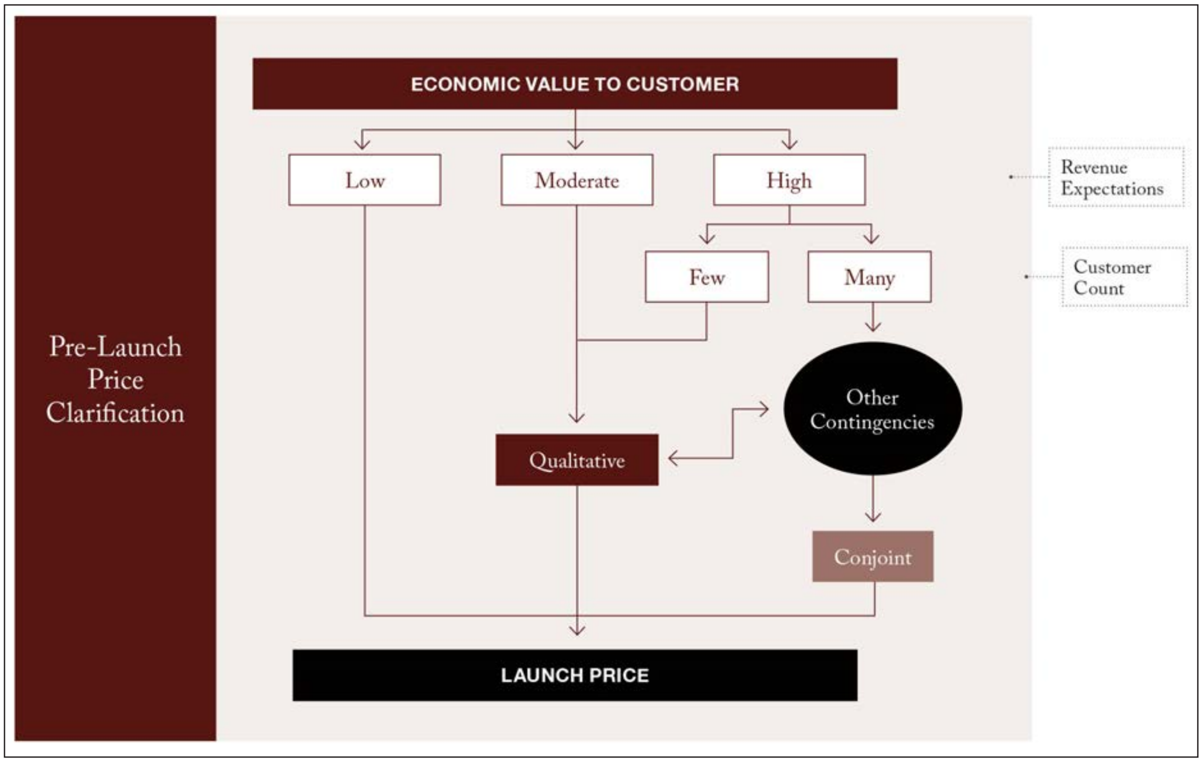
For NPD offerings with low anticipated revenue, this analysis of the Economic Value to Customer alone is sufficient for determining the price at launch and the construction of the sales and marketing messages. For moderate anticipated revenue, we recommend clarifying this research with qualitative market research. For high anticipated revenue, the pricing research map must consider two other factors: market density and timing constraints before considering quantitative research.

Conjoint analysis delivers quantitative accuracy due to its methodology and sample size. Constructing a larger sample requires a dense market (one with many customers). See Figure 11 on the next page.

Many high-revenue markets, however, have very few customers. For instance, the markets for commercial aircraft and jet engines, large container or cruise ships, inputs into mobile phone manufacturing, and oil drilling platforms currently contain fewer than 1,000 customers each. In some markets, the number of potential customers can be counted on one hand. Even though these markets may be worth billions of dollars each, they lack the needed customer density for a successful conjoint analysis effort.

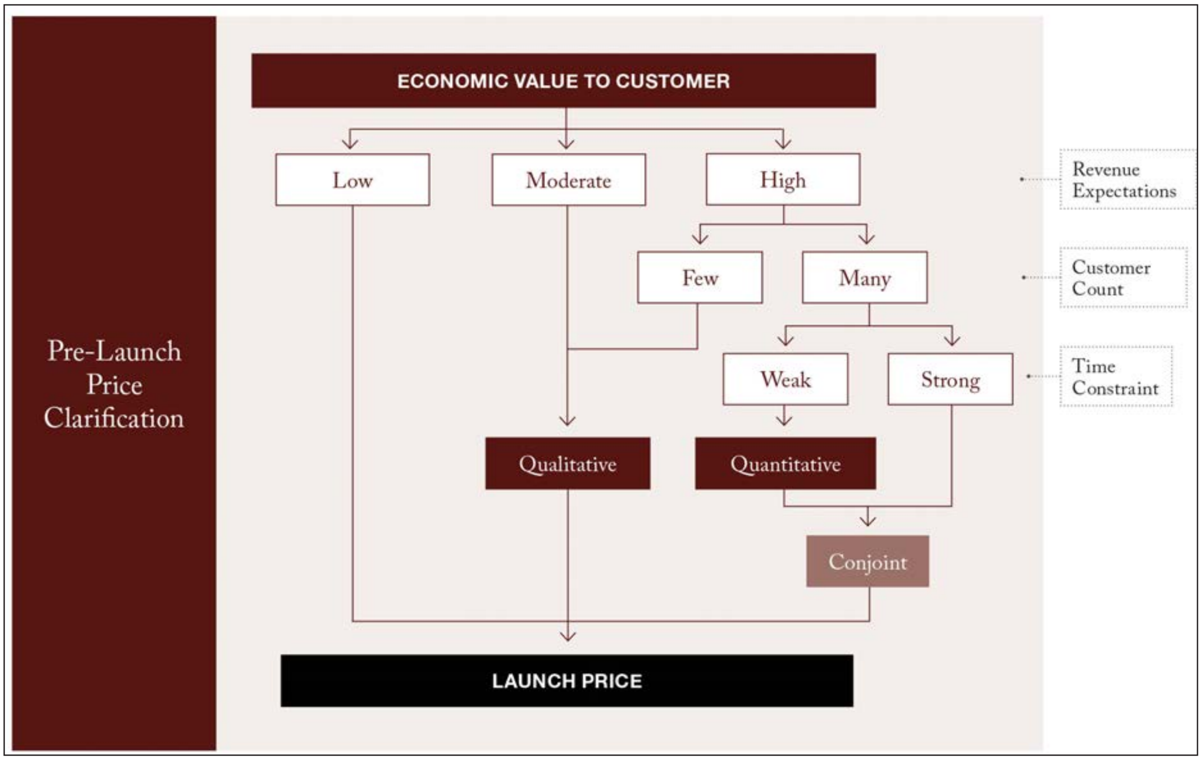
In contrast, other high-revenue markets have customer counts in the tens of thousands to billions. Grocery items, hardware, and mobile phone users are clear examples of consumer markets with extremely high customer counts. Markets serving small businesses, doctors, lawyers, hospitals, automotive repair shops, and plastic injection molding companies are some of the examples of business markets that also have high customer counts. In these markets, the needed customer density exists for successfully executing conjoint analysis.

Figure 11: NPD Pricing Contingency 3 – Customer Count



Conjoint analysis for pricing NPD offerings is difficult to design appropriately to deliver the needed insights with minimal survey fatigue. Prior to executing conjoint analysis, qualitative research efficiently clarifies which attributes and attribute levels are market relevant. This will greatly reduce the risk of a poor conjoint design over that designed from an analysis of the Economic Value to Customer alone. Unfortunately, qualitative pricing research, though relatively lower in cost than quantitative research, requires time. See Figure 12.

Figure 12: NPD Pricing Contingency 4 – Time Constraint



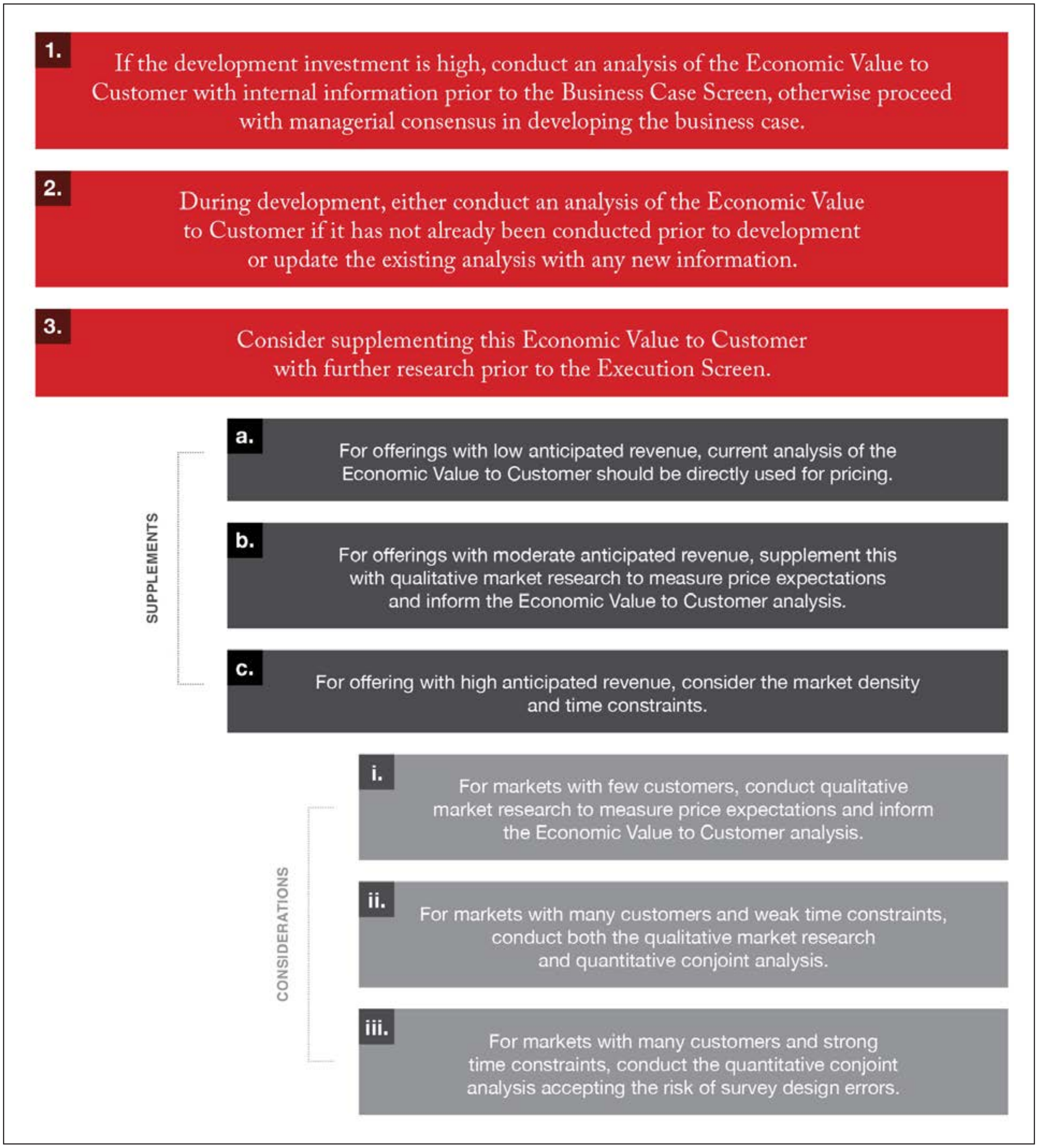
Hence, we arrive at our final tradeoff: time constraints. Given time, qualitative research should precede quantitative research. If, however, the time constraints are high, one may proceed directly to conjoint analysis, accepting the risk that the quantitative research design will suffer due to improper design.

Pricing Roadmap Review

Assembling all the tradeoffs and considerations, we arrive at the recommended new product development roadmap shown in the recommendations in Figure 13.

And thus, the roadmap for pricing during the NPD process as recommended is a logical result of the considerations of the NPD decision criteria. ❖

Figure 13



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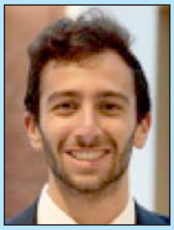
Embracing the Change: 2020 China NRDL Outlook

Bruce Liu

Alex Hu



Harrison Rubin

Josh Lee

by Bruce Liu, Alex Hu, Harrison Rubin and Josh Lee

China's 2020 NRDL (National Reimbursement Drug List) process has been unfolding since July this year with a number of new changes and interesting twists. Based on the authors' experience and observations, as well as ongoing discussions with key players and stakeholders in the industry, they have identified three themes and made five predictions on the likely outcomes of 2020 NRDL process. Although specific to the pharmaceutical industry, this article provides valuable insights for pricers in multiple markets.

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China's NRDL (National Reimbursement Drug List) updates and negotiations have become some of the most watched events in recent years, and for good reasons. First of all, they directly affect all the industry players in the world's second largest pharma market, including multinational pharma majors, biotech, and Chinese companies alike. Second, the results have real-life impacts and implications on the entire Chinese population, as access to and coverage of the right drugs could make a world of difference for the patients in need. Last but not least, there has been plenty of drama in the NRDL listing process. Price negotiations in particular could be very dramatic – or even melodramatic in some cases.

The 2020 NRDL process was slightly delayed partly due to the COVID-19 pandemic, but has been unfolding since July this year with a number of new changes and interesting twists. Based on Simon-Kucher's observations, as well as ongoing discussions with key players and stakeholders in the industry, we have identified three themes that have made the 2020 NRDL even more interesting, and share five predictions on the likely outcomes of the process:

- **Theme 1:** NRDL processes evolve to include more engagements and interactivity
- **Theme 2:** Long list of drugs going into the NRDL heralds intense competition ahead
- **Theme 3:** Strong signal encourages innovations that address unmet needs

Theme 1 is evident from the timeline and stages laid out by the NHSA (National Healthcare Security Administration), in particular Stage 2 on soliciting submission of NRDL applications from pharma companies, which is different from previous years.

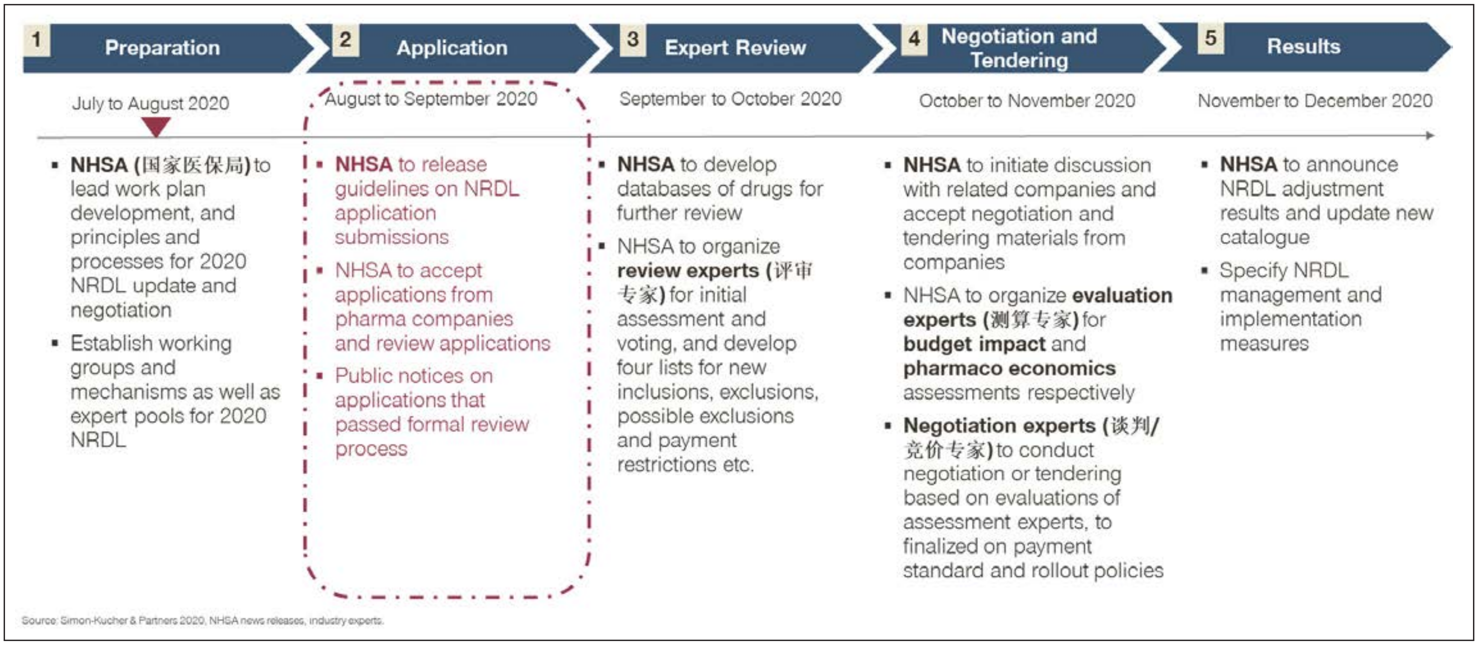
- In the past, the NHSA would release the short list after confidential reviews, and invite those on the short list for negotiations.
- The year 2020 marks the first time that pharma companies are the ones to initiate the process by preparing and submitting their own applications for formal review.
- While the change may seem small and procedural, it is very encouraging for the industry. Many pharma companies responded enthusiastically and rushed to submit their applications by the end of August 2020.

See Figure 1 on the next page.

Theme 2 emerged as a result. The NHSA received a large number of submissions in August, and on September 18 it released a long list with seven categories of new entries that passed its initial formal review (see Figure 2 on the next page), making it the longest list of drugs in history to enter the NRDL process.

- It is interesting to note that the seven categories were laid out with clear criteria and definitions but not in a MECE (mutually exclusive collectively exhaustive) way. For example, Category III is a subset of V, and some in Category IV like Ambrisentan also appear in VII. Therefore, the total number of new entries was not 728 as stated in many reports and analyses that simply added

Figure 1: 2020 NRDL Listing Timeline and Tasks



up all the numbers by category.

- Still, at around 700 drugs, this is the largest number of drugs in history entering the NRDL process (as compared to 119 drugs invited to negotiations in 2019).

- While all of those on the list theoretically have a chance of making it to the final list, the reality is that the 2020 budget is unlikely to be much larger than that of 2019, hence there will be either fiercer competition or more price cuts (most likely both going into next stages).

- At the same time, not all drugs are created equal: some categories are likely to see more price pressure, while other categories may receive different considerations and attentions, as implied by the purposed non-MECE categorizations.

Theme 3 therefore stands out, as this year's policies have been sending out a stronger signal than previous years and encouraging new and innovative drugs that address unmet healthcare needs:

- Category I for COVID-19 drugs, for example, reflects the NHSA's recognition of the pandemic as a top public health priority. As a result, antivirals like Arbidol and Ribavirin injections, and immune boosters like Clostridium butyricum etc.

Figure 2: 2020 NRDL New Entries that Passed NHSA Formal Review

Category and conditions	Number of drugs	Examples
I: Drugs in COVID-19 treatment guideline 7th version	12	Ribavirin, Arbidol, Clostridium butyricum etc.
II: 2018 Essential Drug List (EDL) drugs	11	Citicoline Sodium, Isosorbide Dinitrate etc.
III: Overseas New Drugs Urgently Needed in Clinical Settings (OND-UN), List of Encouraged Generic Drugs, List of Encouraged Pediatric Drugs for Development, etc. approved prior to 08/17/2020	28	Nusinersen, Dupilumab, Apalutamide, Fulvestrant, Sildenafil Citrate, Crisaborole, Fingolimod Hydrochloride, Evolocumab, Ixekizumab, Ustekinumab etc.
IV: 2nd round national Volume based procurement (VBP) drugs	3	Paclitaxel protein-bound particles, Ambrisentan, Tadalafil
V: NMPA approved new drugs from 01/01/2015 to 08/17/2020	171	Abatacept, Alirocumab, Apalutamide, Atezolizumab, Emicizumab, Baricitinib, Beinaglutide, Benvitimod, Perampanel , Sodium Oligo-mannate etc.
VI: Drugs with major changes in indication, function and usage approved from 01/01/2015 to 08/17/2020	10	Ibuprofen, Nivolumab, Secukinumab, Tolvaptan, Levosalbutamol Hydrochloride Nebulise, Edaravone, Remimazolam Tosilate, Camrelizumab, Imiglucerase, etc.
VII: Drugs listed in five or more latest provincial reimbursement drug lists (PRDLs)	493	Amikacin Eye Drops, L-Glutamine and Sodium Gualenate, Amoxicillin and Sulbactam Pivoxil, Aprepitant, Sodium Ferulate, Idebenone, Estazolam, Ambrisentan etc.

were included in Category I based on the 7th edition of the China COVID-19 treatment guideline.

- Category III is also of great interest, as it includes newly approved drugs from the lists of Overseas New Drugs Urgently Needed in Clinical Settings (ONDUN), List of Encouraged Generic Drugs, and the first and third batch of List of Encouraged Pediatric Drugs for Development (see Figure 3).

- Drugs approved in 2020 like Austedo, Aldurazyme, and Dupixent are the particularly lucky beneficiaries. They wouldn't have been eligible to enter the NRDL process as per the NHSA's earlier plan in July.

- What was truly refreshing was the revision made by the NHSA itself on August 17, which allowed drugs approved up to that date to submit NRDL applications.

- This signals a much desired linkage between new drug approval and coverage that is becoming similar to Germany and France, and represents the most encouraging gesture so far of dynamic inclusion of innovative drugs that are intended to address unmet clinical needs for rare diseases, critical diseases, and pediatric needs alike.

Building on the three key themes above, as well as our experience in pharma access and reimbursement globally and in China, we have made five predictions on the 2020 NRDL:

Prediction 1: With around 700 drugs that have made it into the 2020 NRDL process, only a small fraction will make it to the final list.

- There will likely be another round of shortlisting after this formal review. Based on the current longlist, the success rate would be at around 30% at most, or around 200 drugs for final NRDL inclusion.

- In comparison, the success rates were 82%, 94%, and 59% in the NRDL negotiations for the last three years.

Prediction 2: The seven categories stand to have very different likelihoods of NRDL inclusion, roughly in descending order reflecting NHSA priorities.

- COVID-19 still ranks high as a potential public health concern despite China's general success in containing it so far.

- EDL (essential drug list) drugs are considered key to healthcare coverage by definition and will be the priorities for inclusion.

- Category III drugs that were on the priority lists for NMPA approval have a leg up as they have been recognized for their clinical values in addressing unmet needs, and those with an annual cost below 200,000 RMB stand a good chance of making the final list, although some may come with indication restrictions to limit budget impact.

Prediction 3: Price concessions will be substantial, and more so for Category V and VII with the magnitude of cuts exceeding those seen in previous years.

- Category V has had 171 drugs approved in recent years, with some in highly contested areas like immune checkpoint inhibitors, BTK inhibitors, plaque psoriasis, HIV, and pan-genotypic HCV drugs, etc., which may see severe price pressure and competitive biddings.

- Category 7 has 493 drugs, many of them matured generics and TCMs that are on five or more PRDLs, but that were set to be phased out per the earlier NHSA plan. For many in the category, the 2020 NRDL might be their last chance to stay relevant, and price cuts could be 80% or more in some cases.

- In comparison, the price cuts for NRDL negotiated additions in the last three

Figure 3: Select Category III Drugs Approved in 2019 and 2020

Drug	Company	Brand	Indication	China Approval Date
Nusinersen	Biogen	Spinraza	Spinal Muscular Atrophy (SMA)	02/2019
Secukinumab	Novartis	Cosentyx	Ankylosing Spondylitis and plaque psoriasis	04/2019
Denosumab	Amgen	Prolia	Giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity	05/2019
Fingolimod Hydrochloride	Novartis	Gilenya	Multiple Sclerosis	08/2019
Agalsidase Beta	Sanofi	Fabrazyme	Fabry's disease	12/2019
Sodium Zirconium Cyclosilicate	AstraZeneca	Lokelma	Hyperkalemia	12/2019
Tafamidis Meglumine	Pfizer	Vyndaqel	Transthyretin amyloid polyneuropathy (ATTR-PN)	02/2020
Vedolizumab	Takeda	Entyvio	Ulcerative Colitis	03/2020
Deutetrabenazine	Teva	Austedo	Huntington's disease	05/2020
Laronidase concentrated solution for infusion	Sanofi	Aldurazyme	Mucopolysaccharidosis	06/2020
Dupilumab	Sanofi	Dupixent	Atopic dermatitis	06/2020

years stood at 44%, 57%, and 61% respectively.

Prediction 4: Pharmacoeconomics and budget impact considerations are becoming increasingly important and institutionalized in the 2020 NRDL.

- While pharmacoeconomics and budget impacts are not new concepts to the NRDL by any means, the abilities to assess and quantify them are becoming core for NHSA decisions on inclusion, exclusion, price negotiations, and payment models, given the sheer number of drugs going into the 2020 NRDL, and the competing value propositions among many of them.

- At the same time, the ability to engage the right stakeholders and equip them with the right value dossiers and evidence will be key for pharma companies to justify their values and differentiate from competitors and comparators.

Prediction 5: Innovative contracting models may emerge at the 2020 NRDL.

- Unconventional contracting models such as patient caps, per-patient spending caps, and outcome-based pricing were considered but eventually not pursued in the 2019 NRDL.

- This year, the timing is right to pilot something that is easy to implement, and willingness is high among pharma, payers, and patients. Oncology, immunology, and rare diseases are some of the most likely therapeutic areas to get started.

Against this backdrop, many pharma companies are recognizing and embracing the changes, and are moving forward with internal alignment, external engagement, and innovative thinking.

- One of the key decisions to make and align internally is the magnitude of the price concession they are eventually willing to accept.

- There is no one-size-fit-all answer for this, as price elasticities vary by disease, physician perception, patient affordability, and competitive dynamics, and entail an in-depth understanding of the China market reality and price volume tradeoffs.

- Tarceva, for example, was included in the NRDL in 2017 after cutting prices by 66%, but has seen yearly revenue decrease by more than 30% in 2018 and 2019 when compared to that of 2016.

- In addition, other factors like LOE (loss of exclusivity) status, portfolio planning, launch sequencing and global price integrity considerations may also be key inputs to the pricing decision;

- As a result, alignment among all the internal stakeholders on the price setting strategies, reimbursement scenarios, and decision mechanisms is a key first step going into the 2020 NRDL.

- Meanwhile, engaging the right external stakeholders is equally if not more important.

- There are three types of expert stakeholders with different roles at different stages of the NRDL process, with review experts (评审专家) key at Stage 3 for shortlisting, evaluation experts (测算专家) at Stage 4 for pharmacoeconomics, and budget impact assessments and negotiation experts (谈判/竞价专家) at the final stage for price setting.

- Compared to other experts, there is a relatively small pool of evaluation experts in China, and they will be flooded with the large number of drugs to evaluate in coming months. From our past experience, most of the evaluation experts tend to be open-minded and number-driven, and actually appreciate well-structured value dossiers and quality arguments that companies are able to provide.

- Engaging evaluation experts early on with clear messages, tailored models, and relevant data that can facilitate their decision-making can make a big difference, as they are the ones that set the price range for final negotiations.

- Finally, innovative contracting models can help address payer concerns, and should be explored proactively, especially in light of the many newly approved drugs in the 2020 NRDL process.

- In Australia, for example, plaque psoriasis biologics like Adalimumab, Etanercept, Infliximab, and Ustekinumab have price-volume and outcome agreements in place, and continued reimbursement is only given if the patient responds to treatment and is properly monitored. Additionally, Australia also had success with a "Netflix" pricing model for HCV drugs, where a lump sum payment of about $766 million USD to four different manufacturers gave Australia unlimited access to the most advanced HCV drugs for five years, reducing per-patient cost by 85%.

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- In comparison, cost-capping could be key to addressing payer concerns on budget impact, either by patient cap, per-patient spending cap, or sales cap. In France, for example, government payers would typically negotiate a five-year contract that specifies the price and expected sales volume of new products. When sales exceed the contract cap, manufacturers pay rebates of between 50 percent and 80 percent so that the budget impact can be mitigated. In South Korea, a per-patient utilization cap is negotiated with Roche's Perjeta for HER2-positive metastatic breast cancer, placing a maximum reimbursable cost per patient at ~$3,300 USD per month.

Having worked closely with leading industry players over the several rounds of NRDL updates and negotiations to date, we have witnessed firsthand how China's access and reimbursement environment has evolved over the past decade, and each round seems to be another testimonial to the observation that the only thing doesn't change is the change itself. The 2020 NRDL has lived up to that so far, and we expect to see more changes to come as the process further unfolds over the coming months. ❖