Every company has to put a price on what it sells, but Tim Ham and Marco Bertini have found that most companies often fail at this important task in a manner that jeopardises long-term value. And, there are surprisingly large rewards for those companies that invest in even the simplest of price optimisation techniques. The stunning growth in the quantity and quality of customer data has enhanced the ability of companies to create tailored marketing solutions and adjust prices to fit people’s budgets and preferences. Though some have succeeded in driving profits and expanding their market share as a result, many have not. Our research sought to find out why a more tailored approach to pricing has not worked for every company, despite the promise, and to lay out a plan by which companies can establish a better approach to price optimisation.

We started our investigation by observing current beliefs and practices. We found that, while firms typically sense that they can improve price setting and benefit greatly from doing so, they also lack a well-developed and thorough plan. In addition, we uncovered a number of barriers that prevent organisations from developing and implementing an effective price optimisation strategy. Here, we share some of the findings of that research and suggest how companies may be able to overcome their obstacles to improve firm performance.

Why price optimisation?
The benefits of price optimisation stem from a company’s ability to understand and take advantage of either of two variations:

Price elasticity variations
The volume effect of a price change on a company’s customers is typically heterogeneous. For example, the ease and speed with which price comparisons can be made on the internet has driven fierce price competition in some markets, yielding high consumer price elasticities. This can be seen in the UK motor insurance market where a one per cent price reduction online can drive up to a 50 per cent increase in volume. Yet, that same one per cent price change offered on the telephone results in only an eight per cent variation in volume. This heterogeneity in elasticity leads to significantly different strategies for setting prices optimally. Care should be taken to ensure that the integrity of the consumer proposition is not undermined by apparently unjustifiable price variations.
**Margin variations**

Margins can vary to a similar degree to price elasticities. This is discussed in more detail later, but suffice it to say that ten-fold variations in customer contribution are common. Those customers with low margins and low price elasticities are prime candidates for price increases. Conversely those with high margins and high price elasticities should be considered for price reductions.

A price change as small as three per cent can affect the value derived from customers. The variance in value delivered is driven by the margins made per customer and the sensitivity of demand to price changes.

The value impact of a three per cent price move results in value improvements of between plus or minus 300 per cent at the extremes.

Most companies know where their customers sit on the curve in aggregate. Price optimisation allows a company to segment its customers and appreciate that it has groups sitting on very different places on that same curve. The opportunity for price optimisation stems from this.

**Approaching price optimisation**

When setting prices, a company must reflect on its consumers, competitors, product and customer economics, and broader strategy. Our study of companies in twelve sectors focused on four questions:

01. How sensitive is the consumer to the price of the product or service?
02. How does your price proposition compare to that of the competition?
03. How well do you understand the economics of your product and customers?
04. Is the pricing coherent and aligned with the company’s competitive, product and consumer strategies?

**How sensitive is the consumer to the price of the product or service?**

Of the companies we surveyed, 41 per cent analysed the sensitivity of their customers to price changes. Of all the factors that should be considered when setting prices, price sensitivity is the most complex to assess. It requires organisations to establish relationships between price changes and shifts in customer purchasing behaviour.

Asking customers about the effects of pricing can be problematic, as they have a tendency to overestimate their price sensitivity. Comparing the actual behaviour of customers with that predicted by market research can expose alarming variations.

In the case of ongoing service providers, such as mobile or utility companies, life stage can be a major factor in how price sensitive consumers are. People in the process of choosing between suppliers can be highly price sensitive, not least because of the way that providers market themselves. However, when customers are renewing a contract, they tend to be far less price sensitive.

In food retail, shopping occasion proves to be a driver of price elasticity, as those on a standard weekly shopping trip tend to be more price sensitive than those stopping in for a few items on their way home after work.

In sum, there are stark variations in how consumers respond to price changes that are highly quantifiable. Those companies that do this can achieve significant competitive advantage.

**How does your price proposition compare to that of the competition?**

Among those in the retail and service sectors, competitor prices are often given greater prominence in the price decision than any other factor. This is partially because companies have a better understanding of competitor prices than they do of customer value and price sensitivities. It is also because managers assume that pricing is to a large extent “out of their hands” and “at the mercy of the market”.

However, the importance of competitor prices varies markedly. When price sensitivity is measured by retail outlet, the variations in competitive intensity frequently prove to have the greatest import, ahead of other factors such as demographics and shopping occasion.

Competitor reactions can either mitigate or accentuate the effects of a price change.

Very often, one company’s price change will be quickly mimicked by the competition, reducing the impact of the change. This can occur for both price increases and decreases. In the case of decreases it can lead to destructive price wars.

Conversely, competitors can exploit the opportunity presented. If company A’s prices rise, company B could institute a sales drive. This can be observed in the utility energy markets. Following a rise by one competitor, other competitors may seek to capitalise on a sales opportunity in the short term, and then follow the price rise themselves later on. Thus, the competitor that led with the price rise will see a substantial impact on volumes in the short term but little impact in the medium term once the competition matches their move.

There are often many alternatives for competitor reactions to a price move. Scenario modelling can be the best approach to modelling competitor reactions. Our research suggested relative infrequent use of scenario modelling in determining an optimal price move.
How well do you understand the economics of your product and customers?

Questions pertain not only to product profitability but also to the profitability of customers.

Let’s focus on product considerations first. Cross-product promotions and subsidies well predate the online marketplace. For instance, inkjet printer manufacturers see printers as enablers of a revenue stream associated with cartridge sales. Restaurants discount main courses to drive consumption of higher margin complementary food categories, such as alcohol and desserts. Builders submit competitive quotes for jobs with the knowledge that there will invariably be additions to the project for which they can charge a premium.

Even with these practices so common across industries, 57 per cent of the companies we surveyed optimised prices for products independently of each other, despite recognising that the purchase decisions are interrelated. It would appear that, though most companies understand the interrelationship of product purchase choices by consumers, the companies’ pricing decision-making processes do not reflect that insight.

Customer factors must also be considered. Margins can vary substantially between groups of customers. These variations need to be understood and reflected in price decisions. Strangely, 75 per cent of companies surveyed did not have an established methodology for measuring differences in the value of customers to their companies, yet the same percentage perceived a greater than 50 per cent variation between the most and least valuable customers.

Variations in customer value are often well understood by factors by which a company is organised (such as location). This reflects how financial reporting is done but does not correspond to the key differentiators of value such as product holding, purchase frequency, acquisition channel, tenure and payment method.

Modelling customer lifetime values requires an understanding of many factors including financial discipline and market realities. Though data-driven, this field of study is often an inexact science that necessarily draws on the experience of the modellers and market experts.

Typical predictors of lifetime value are unsurprising: product holding and usage, acquisition means, and payment method. More interesting is the way that the factors compound each other, which can result in dramatic variations in profitability. If done well, modelling will expose the variations in customer value that exist within a company’s customer base. Often, between 30 and 40 per cent of customers contribute close to 100 per cent of profits while another 30 per cent actually reduce profits.

Is the pricing coherent and aligned with the company’s competitive, product and consumer strategies?

Any company seeking to optimise profit must provide customers with a set of prices that are coherent and aligned to the company’s competitive, product and consumer strategies. Prices are strong signals to the consumer above and beyond the cost of an item. Issues to consider are price levels, transparency, simplicity and price assurance. Variations in price elasticity by customer group can tempt an organisation to vary prices. However, this can interfere with a consumer’s perception of value.

When it comes to a single product’s price strategy, it must be undertaken in light of the overall product portfolio strategy. A good example of this is the previously mentioned restaurant pricing strategy — restaurants seeking stronger margins overall should price particular products as part of that overall plan.

“It is important for companies to articulate how their prices are likely to be perceived by consumers in comparison to its rivals. They must also consider the extent to which they wish to lead the competition.”

Of course, prices set by one firm are seldom judged in the mind of the consumer without immediate comparison or contrast to the prices of the competitors’ offerings. Therefore, it is important for companies to articulate how their prices are likely to be perceived by consumers in comparison to its rivals. They must also consider the extent to which they wish to lead the competition and, accordingly, to provide signals to the marketplace and consumers alike.

The importance of these matters can be seen any time a firm decides to attract new customers simply by cutting prices. We have found that, often, a discounting strategy is not in line with a broader business strategy. Short-term pursuit of volume can undermine the longer-term customer and brand strategies. This is most notable in markets in which the marginal
cost of consumption is low, such as airline travel. Revenue management systems are excellent at optimising revenues for the short term, but the process of offering highly discounted prices can damage the long-term revenue potential of not only a single company but the industry overall.

**Sector variations**

While the principles of price optimisation focus generally on the trade-off between unit margin and volume in a market, the opportunities and challenges for implementation can vary markedly across segments within the market. It is the nature (timing, frequency, and depth) of the interactions that a customer has with a company throughout that customer’s life cycle that best informs the optimal pricing approach. We illustrate some of these sector variations below:

“The long, but typically profitable, journey to adopt a price optimisation strategy that is right for your company starts with a few important steps.”

**For firms in sectors such as utilities and insurance**

— How to trade off prices between those that can attract highly price-sensitive new customers and those that will reaffirm loyalty at the point of contract renewal
— How to offer discounts to customers with multiple product holdings
— How to factor in payment type, acquisition channel and tenure as dimensions in any pricing segmentation.

**Obstacles to overcome**

Our research identified a range of impediments to price optimisation that explain why most organisations fail to reap the potential benefits. Indeed, it will be difficult for firms to see the extensive benefits of an optimised price strategy unless they can overcome a number of obstacles.

**Awareness of opportunity**

The value of finding optimal price levels for goods and services only becomes clear when the customer value and price elasticity assessments have been made. Organisations that have not taken these crucial steps do not appreciate what they are missing.

**Organisational structure**

The team performing the pricing analysis generally does not have the power to make pricing decisions. In addition, the consequences of the work may turn out to be broader than the original stated objectives. For instance, while the pricing team may develop optimal pricing plans, they are often overridden by others determined to discount prices to hit their personal volume targets. In 26 per cent of companies, those surveyed believed that their pricing structure was undermined to a great extent by discounting. Pricing plans must be close to the province of the one person who is responsible for both the short- and long-term profitability and market performance of the organisation, the CEO.

**Analytical capabilities**

Pricing can require advanced analytical and statistical skills. Of the factors considered, this was believed to be the biggest constraint to developing a cohesive strategy by the companies we surveyed. Most companies are simply not staffed with people proficient in price optimisation. Therefore, a short-term strategy may involve hiring outside help with those skills, though it is important to develop an internal team to handle the analytical measures for long-term success.

**Useful data**

It is common for us to encounter companies that are bathed in data but that data is of limited use in understanding price elasticities. Whilst the company may have examples of price changes, the volume effects are difficult to interpret. More often than not this is due to the volume effects occurring over a sustained period of time whilst other factors like the competitors’ prices are also changing — distinguishing between effects can be impossible. In this
situation price experiments are required to derive price elasticities. In our research, issues of the quality, usefulness and availability of data varied by organisation; but, as a rule, larger organisations were more confident about their data capabilities, though most organisations can make better use of the data they collect.

**Execution**

Sometimes, corporate organisational structures simply do not allow prices to be varied in ways that thorough analysis suggests. For instance, a restaurant group identified that discounts would be more profitable in some restaurants than in others. However, the company was only able to advertise discounts effectively at a national level.

Similarly, organisations may struggle with the complexity that a comprehensive analysis can create. Even using a few variations in customer models and structures can lead to excessive (running from thousands to billions) different price levels. It can be difficult to understand the consequences of a change to one price level when faced with such computational complexity.

**How to start**

The long, but typically profitable, journey to adopt a price optimisation strategy that is right for your company starts with a few important steps. To define the optimal price structure and pricing levels, a company must have:

— An empirical understanding of how price changes affect volume in aggregate and by customer segment
— An understanding of the marginal profitability of its customers (on a multi-product and multi-year basis) and how customer characteristics drive variations therein
— Scenarios for how consumers and competitors might react to price changes
— Well-articulated consumer, competitor and product price strategies — which should be aligned with a coherent pricing plan
— A model, however basic, that demonstrates the trade-off between the volume and value impacts of price changes. Then, the company should be sure that it adheres to these five precepts:

**01**

**Don't leave it purely to the pricing team**

Given that the effects of price changes go beyond the pricing or marketing teams, it is essential that any price optimisation work have broad engagement and support throughout the company.

**02**

**Set a challenging target for the benefits delivered**

The benefits achievable from price optimisation can be surprisingly large. The analysts and statisticians involved may be best positioned to unearth additional opportunities and should be set challenging targets to encourage them to do so.

**03**

**Audit your current performance**

Companies should identify the areas in which the greatest opportunities for improvement lie through asking those same four questions that we asked in our research. They will help you establish where the opportunities for improvement may lie.

**04**

**Identify barriers early**

Considering the list of barriers that we have listed, it is essential that firms assess those that most apply to their organisations and systematically mitigate their impact.

**05**

**Start simple**

The simultaneous introduction of multiple factors into a company’s pricing structure would be unwise. Not only is it difficult to collect the necessary statistics, but coincidental changes are hard to measure and also result in greater risk.