'Finally, a book that gives dozens of examples of innovative pricing. Even one idea that grabs your attention can create a fortune.'

Philip Kotler, S.C. Johnson & Son Distinguished Professor of International Marketing at Kellogg School of Management, Northwestern University, USA

ROUTLEDGE

INNOVATION IN PRICING

Contemporary Theories and Best Practices

Andreas Hinterhuber and Stephan Liozu

INNOVATION IN PRICING

Contemporary theories and best practices

Edited by Andreas Hinterhuber and Stephan Liozu

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INNOVATION IN PRICING

Introduction

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Few companies treat innovation in pricing as seriously as they treat product or business model innovation. One key objective of this edited volume is thus to raise the importance of innovation in pricing, both in academia as well as in the industry.

A historical perspective on innovation in pricing

Nearly five decades ago, in 1968, Elizabeth Marting edited the book *Creative Pricing*. This book is a collection of papers by 19 scholars and pricing practitioners on creative pricing approaches. The book covers the following topics: the role of pricing, pricing policy and objectives, nonfinancial aspects of pricing, pricing by distribution channel, pricing by product type, the use of computers in pricing, and management of price changes. In the foreword, Elizabeth Marting comments (Marting 1968: 5): 'It is the thesis of this book that with sound planning, flexible techniques, and adequate support, pricing can be made to have a positive, productive impact on company profits; in short, that it can be creative.' We agree. Pricing can and should be a topic of innovation and creativity.

In the first chapter, Oxenfeldt suggests (Oxenfeldt 1968: 9) that 'the notion that pricing can be creative is itself quite creative and new'. For decades, research in pricing has been dominated first by economic theory and later by cost accounting. We conjecture that price strategists and price setters have the opportunity to be creative, although 'it runs counter to the writing and thinking of most economic theorists' (Oxenfeldt 1968: 10).

The questions raised 50 years ago are still valid. The answers as to what constitutes an innovation in pricing have changed.

What is innovation in pricing?

Innovation in pricing regards instances in which companies innovate their pricing strategies, tactics, or organization, or where companies use an understanding of consumer psychology to change customer perceptions of value and price. In this section we provide an overview.

Innovation in pricing strategy

Price and value segmentation

One way to implement innovation in pricing strategy is to move from a one-size-fits-all pricing policy to a policy with multiple price and value configurations, reflecting differences in value creation for different market segments (see Figure 1.1).

Allstate, one of the most profitable auto insurance companies, is able to successfully compete against no-frills Internet competitors, through a policy of price and value segmentation: depending on the customer's brand/price sensitivity and her needs for customer support, Allstate divides customers into four distinct clusters

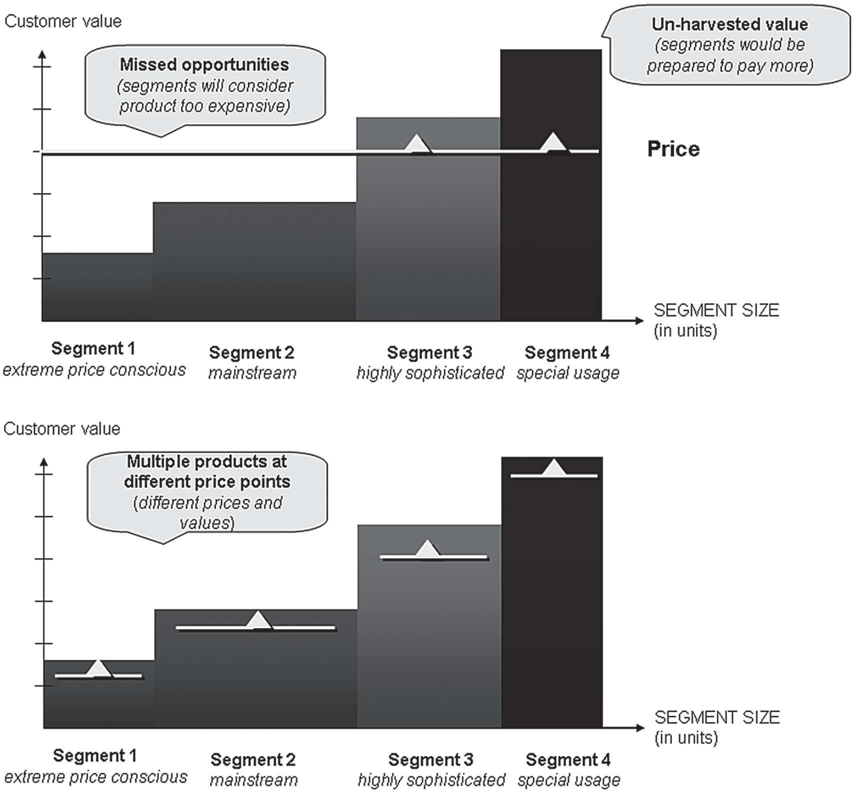

FIGURE 1.1 Innovation in pricing strategy: price and value segmentation

(high/low brand sensitivity and high/low self-service) and competes in these different market segments through four distinct brands, offering a substantially different customer experience at different price points.

Pay for performance pricing

Pay for performance pricing is an arrangement whereby the seller is paid depending on performance outcomes determined conjointly with the customer. The following example may serve as illustration: the UK, along with Sweden, Australia and Canada, is among the few countries where the reimbursement of new pharmaceutical products is closely tied to criteria reflecting the new product's incremental value over existing therapies. For new pharmaceuticals, the UK has a threshold range of £20,000 to £30,000 per QUALY (quality-adjusted life year). In this environment, Velcade (bortezomib), by Johnson and Johnson (J&J), a product for treating multiple myeloma, is considered not cost-effective, since treatment costs are approximately £3,200 per treatment cycle, or £40,000 per QUALY. Traditional pricing approaches thus would have suggested either to drop the price to reach the threshold – implying a price drop by up to 50 per cent – or to exit the UK market. J&J, however, proposes an alternative pricing approach to regulatory authorities (Hinterhuber 2012). Under the new pricing scheme, J&J links reimbursement to effectiveness. Only when patients respond fully to the new drug, they remain on therapy and the drug is funded by the National Health System. When patients show no or a minimal response, the treatment ceases, and J&J bears the full costs. This new approach (full reimbursement by J&J in case of no response) reduces the costs for patients on therapy to approximately £22,000 per QUALY. As a result, Velcade is today the market share leader in the UK while also being the most expensive therapy in this segment. Global sales are in excess of $1 billion in a very competitive environment.

Advertising, industrial services (e.g. software, consulting, logistics and transportation), and complex engineering projects are other areas where pay for performance pricing is currently widespread. Performance-based pricing is costly: monitoring is intensive. Nevertheless, we expect to see a substantial increase in these arrangements in other areas in the future, very likely also in consumer-good markets.

New metrics

Innovative pricing strategies align pricing with customer goals. This frequently leads to new pricing metrics. Levitt, a marketing professor at Harvard Business School, famously quotes Leo McGinneva about why people buy quarter-inch drill bits: 'They don't want quarter inch bits. They want quarter inch holes' (Levitt 1986: 128). Table 1.1 provides an overview of innovative metrics.

In all these cases, companies align the basis of their own pricing policies with customer outcomes. This interest alignment enables high customer satisfaction, thus overcoming customer resistance to a change in pricing approach.

TABLE 1.1 Innovation in pricing strategy – new metrics

Company	*Traditional pricing strategy*	*New pricing metric*	*Result*
General Electric	Cost-based. Fixed pricing for aircraft engines; spare parts sold with substantial mark-up (+300% over costs).	'Power by the hour': value-based pricing for utilization rights of aircraft engines; usage-based, variable, pricing inclusive of maintenance and performance guarantee.	High customer satisfaction; interest alignment; increased profitability.
Salesforce.com	Traditionally, software companies sold boxes of software. Prices reflect volume.	Software as a service (SaaS). Price varies with usage.	New customers (low-usage customers); high growth and profitability.
BASF	Paint sold on a per kg basis to car manufacturers.	Outcome-based pricing. Price is set per painted car.	High customer satisfaction. Joint collaboration with customers to reduce environmental impact and paint consumption.
Michelin	Truck tyres sold at largely fixed prices.	Michelin Fleet Solutions sells mobility: pricing is based on performance (per km) and includes maintenance.	Initial difficulties (new business model), expansion across Europe at above-average margins.
Schindler	Elevators sold at cost-plus prices.	Sale of usage rights: variable pricing based on distance and number of passengers transported.	Market share growth in competitive market; access to new customer segments.

Pricing to drive market expansion

Rather than compete for market share, innovative pricing approaches expand the overall market. The pricing of Ford's Model T is an example (Figure 1.2) (adapted from Casadesús-Masanell 1998):

In his autobiography, originally published in 1922, Henry Ford states:

> Our policy is to reduce the price, extend the operations, and improve the article. You will notice that the reduction of price comes first. We have never

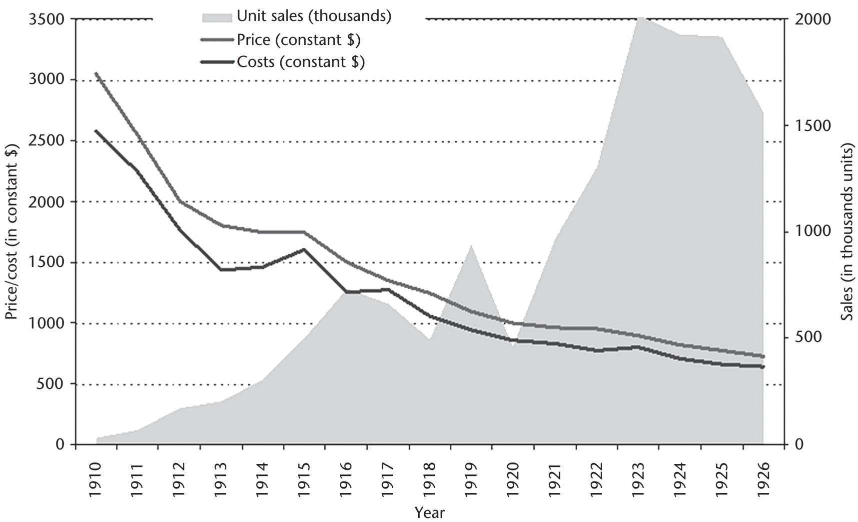

FIGURE 1.2 Pricing to drive market expansion: the example for Ford's Model T

> considered any costs as fixed. Therefore we first reduce the price to a point where we believe more sales will result. Then we go ahead and try to make the price. We do not bother about the costs. The new price forces the costs down. The more usual way is to take the costs and then determine the price, and although that method may be scientific in the narrow sense, it is not scientific in the broad sense, because what earthly use is it to know the cost if it tells you that you cannot manufacture at a price at which the article can be sold? But more to the point is the fact that, although one may calculate what a cost is, and of course all of our costs are carefully calculated, no one knows what a cost ought to be.
>
> (Ford 2007: 84)

Similar approaches where pricing strategies have expanded the overall market include Ryanair/easyJet, the pricing of wines from the New World (USA, Chile, Australia), and others.

Zero as a special price

Zero is a special price, uniquely capturing customer attention (Shampanier *et al.* 2007). A number of companies seem to have mastered the art of profitable growth while essentially giving away the main product. Ryanair, with average flight revenues of €40 per customer, barely breaks even on its flight operations, yet it is Europe's most profitable airline, largely as a result of the profitability of its ancillary revenues: revenues from third parties, customer penalty payments, early boarding fees, baggage fees, in-board sales (Hinterhuber 2012). Skype (Internet calls are free, fixed-line calls are sold at regular prices), Google (search is free, advertisement is sold), fast-consumption newspapers (given away for free, advertisement is sold) and open source software (standard models are free, customized versions are sold) compete using similar pricing strategies.

Name your own price

Name your own price (NYOP) mechanisms ask customers to submit a bid price for a product. The customer receives the product only if this bid price is larger than an unknown threshold price; in this case the customer pays the submitted price. In some instances, rebidding may be allowed. Priceline successfully pioneered this business model in the 1990s with very remarkable results. NYOP enables a large degree of price discrimination between customers. NYOP is more profitable than fixed prices if the seller is a monopolist; with competition, NYOP increases profitability if it allows a company to expand its current customer base with price-sensitive customers who would otherwise not purchase (Shapiro 2011). NYOP also contributes towards mitigating competition, since customers differ in their bidding costs: NYOP firms thus target customers with low bidding costs, while fixed-price sellers target customers with high bidding costs (Fay 2009). Based on these considerations we thus expect that NYOP mechanisms will gain in popularity, quite likely also in industrial markets.

Pay what you want

Pay what you want (PWYW) is a participative pricing mechanism where customers set prices. In contrast to NYOP mechanisms, sellers have to accept any price, including zero. Examples of PWYW pricing can be found in information services (e.g. Wikipedia), in museums (voluntary contributions), in the music industry (e.g. Radiohead), as well as in the hotel and restaurant industry. Fairness considerations, social norms, as well as credible threats by the seller to switch back to fixed prices (Mak *et al.* 2010) seem to motivate customers to pay non-zero prices. In three experimental studies involving restaurants and cinemas, PYWY pricing leads to lower average prices than previously posted fixed prices but higher revenues due to new demand (Kim *et al.* 2010). Thus NYOP pricing can be beneficial for sellers as well as for customers (Kim *et al.* 2009). We thus expect further applications of PWYW pricing, in both consumer-good as well as industrial markets.

Innovation in pricing tactics

Revenue management

Revenue management is probably the most successful pricing innovation in service industries: Successful implementation increases company revenues by 3 per cent to 7 per cent and profits by 30 per cent to 50 per cent (Skugge 2004). Revenue management varies price levels and bookable capacities conjointly to optimize profitability. Revenue management has evolved from the travel industry (airlines, then hotels, then rental cars, finally cruise lines), to leisure services (golf courses, sport clubs, restaurants), to industrial services (freight transportation, advertising time), to, finally, consumer services (equipment rental, home repair). Revenue management can be applied in industries characterized by the following features: fluctuating demand, existence of different customer segments, fixed and perishable capacity, high fixed costs, low variable costs and predictable demand. We foresee that in the future, capital-intensive industrial manufacturers will consider applying revenue management to at least part of their supply: as a testimony, Infineon, a leading chip manufacturer, is currently experimenting with dynamic pricing (Ehm 2010).

Callable revenue management

Low fare bookings frequently displace highly profitable last-minute bookings in case of higher than anticipated demand. Callable revenue management grants the supplier (e.g. the airline) the option to repurchase low-fare bookings at a predetermined price for immediate resale to high-price customers. This recall price is above the low fare and below the high-price fare (Gallego *et al.* 2008). Callable revenue management can be profitable for both airlines and customers: customers self-select to grant the call option if the option price is attractive and profit if the option is exercised; the supplier (e.g. airline) also profits with the resale. High-fare customers also profit, since they obtain an otherwise occupied seat. Callable revenue management thus increases profitability: it induces additional low-fare demand and reduces overbooking costs (Gallego *et al.* 2008). We anticipate that the use of callable revenue management will increase in the future in all industries where revenue management is currently applied. One immediate candidate is the airline industry, where bumping and re-planing raise airline costs and are a frequent cause of customer dissatisfaction.

Contingent pricing

As an alternative to a fixed high- or low-price strategy, contingent pricing is an arrangement to sell a product at a low price if the seller does not succeed in obtaining a higher price offer during a specified period (Biyalogorsky and Gerstner 2004): if a higher price is obtained, the original sale does not take place and the original buyer receives the agreed-upon compensation. Otherwise, the original buyer purchases the product at the original price. Contingent pricing mitigates the expected losses from price risks, and it benefits buyers as well as sellers. Also here we anticipate that the use of contingent pricing will increase in the future. As an example, Caterpillar sells its spare parts to dealers with the option to repurchase the product at a 10 per cent price premium in case another dealer or customer runs out of stock and has an urgent need for the product in question (Sheffi 2005).

Individualized pricing

Information technology enables service companies (e.g. insurers) to charge substantially different prices for identical products or services based on individual customer data. Price quotes reflect an estimate of customer willingness to pay and are based on the following: customer demographics, transaction history and the estimated likelihood to shop for alternative offers. SunTrust, one of the largest US banks, is implementing individualized pricing for car loans and home mortgages: the company uses software to search for instances where it undercharged customers willing to pay more for a home mortgage; the software also detects cases where the company lost business due to excessively high prices. The software finally produces an optimized, individualized price for different customers (Kadet 2008). Individualized pricing is thus likely to increase in all industries where suppliers have frequent and direct contact with known individual customers (e.g. financial services, communication, tourism, online retailing, logistics and transportation, industrial services).

Innovation in organizing the pricing function

Organizing the pricing function is a strategic activity – strategic from at least two different perspectives. First, it is strategic in the sense that pricing is an integral part of firm strategy. Second, it is strategic as encompassing a resource and activity configuration that is valuable, rare, difficult to imitate, nonsubstitutable and embedded in the firm's organization (Barney 1991) and thus enabling a firm to build a competitive advantage and to achieve superior profitability as a result (Hinterhuber and Liozu 2012). This involves the following elements:

Centralization

The literature highlights the advantages of centralization (Stephenson *et al.* 1979) as well as the performance benefits of decentralization (Frenzen *et al.* 2010). Recent research, however, suggests that centralization – that is, a central function with clearly defined decision rights on price setting and on price-negotiation latitudes for sales personnel – increases firm performance (Liozu and Hinterhuber 2012).

Championing

CEOs are powerful individuals: within any organization, the 'levers of power are uniquely concentrated in the hands of the CEO' (Nadler and Heilpern 1998: 9). CEOs themselves 'will never set a single price' (Dutta *et al.* 2002: 66). Current academic research, however, strongly suggests that the championing of the pricing function by the CEO has a very powerful effect on firm performance (Liozu *et al.* 2012).

Capabilities

Pricing capabilities are a complex bundle of routines and activities that include acquisition of pricing-specific skills, use of pricing tools, development of pricing processes, acquisition of competitor knowledge, and acquisition of knowledge about customer needs and about customer willingness to pay (Liozu and Hinterhuber 2011). Pricing capabilities are positively linked to firm performance (Liozu *et al.* 2012).

Confidence

Innovation in pricing requires organizational and individual confidence: this confidence in turn leads to superior firm performance (Liozu *et al.* 2012).

Change management

Innovation in pricing finally fundamentally engages the organization in a change-management process (Liozu *et al.* 2012). A new pricing approach is not 'just a change of marketing signals' but 'a new way of life' (Forbis and Mehta 1981). Engaging the organization to experiment with and implement new pricing approaches is thus fundamentally a change-management process that significantly exceeds the complexity of activities such as changing list prices: new pricing approaches frequently require new capabilities, a new organizational structure, different goal and incentive systems, new processes and tools, and new organizational priorities.

Psychological aspects of pricing and innovation

Customer preferences in B2C and B2B markets are not stable – they are constructed. Research examining behavioural and psychological aspects of pricing seeks to understand how customer perceptions of value and price are formed. Research in this area has substantially increased in the past years; for an overview, see Hinterhuber and Liozu (2013). We discuss some recent findings:

Advertised reference prices

Advertised reference prices (e.g. manufacturer-suggested retail price $299, now only $99) influence customer behaviour, even if customers themselves know that these reference prices are inflated (Suter and Burton 1996). A judicious use of advertised reference prices can thus influence customer choice towards higher margin products.

9-endings

More than 50 per cent of posted retail prices end in 9. Customers perceive prices ending in 9 as lower than they actually are; they also associate 9 endings with special offers. Thus, 9 endings have both level and image effects (Stiving and Winer 1997). Despite their widespread use and possible wear-off effects, 9 endings still seem to lead to higher sales (Anderson and Simester 2003).

Irrelevant attributes

In 2000, Shell launches V-Power, a premium fuel sold with the promise of improving engine performance and reducing fuel consumption. The product carries a price premium over regular fuel of approximately 10 per cent. A spokesperson for a large, premium car manufacturer vehemently denies that the new fuel improves engine performance (Beukert 2003). Nevertheless, premium fuels account for 25 per cent of all fuel sold by Shell five years after launch (Hinterhuber 2012). Differentiated fuels enable Shell to substantially improve downstream profitability.

In these cases, irrelevant attributes influence customer choice. Contrary to mainstream marketing theory, which argues that differentiation needs to be relevant to affect customer choice, irrelevant attributes have been shown to influence customer choice in a variety of research settings (Albrecht *et al.* 2011; Carpenter *et al.* 1994).

Promising avenues for future research include studies on the relevance of irrelevant attributes in industrial contexts.

Compromise effect

Brands gain market share when they become intermediate, rather than extreme, options in a choice set (Kivetz *et al.* 2004a). Customers are averse to extreme options. Pricing managers thus have the option to increase the likelihood that customers buy a premium product by adding a super-premium product to their product lines. It is well documented that companies such as Starbucks, Dell, FedEx and Amazon make heavy use of compromise effects to profitably influence customer choice.

Decoy options

The presence of a decoy – inferior option – affects customer choice: the introduction of an irrelevant option provides a strong justification for the choice of an initially unappealing option. Pricing managers thus have the possibility to steer the customer towards higher priced, thus likely more profitable, products simply by adding decoy options to the choice set (Kivetz *et al.* 2004b).

In sum, B2B and B2C customer decisions are influenced by behavioural biases. An understanding of these biases helps pricing and marketing managers influence customer choice, which in turn can facilitate the implementation of innovative pricing strategies.

Our research on innovation in pricing

In 2010, we approached the Professional Pricing Society (PPS; http://www.pricingsociety.com) with a request to conduct research on its membership base. Our goal was to gain insight on the role of innovation in pricing in US industrial firms. We interviewed CEOs, board members, business-unit heads and mid-level managers at 15 companies. In total we conducted 44 interviews.

The interviews, averaging 60+ minutes, focused on managers' experiences in making pricing decisions and in participating in their firm's pricing process. We asked them to describe their specific experience with the most recent pricing decision made in their firm or a very recent meeting during which pricing was discussed or a pricing decision was made. We also asked managers in these firms to share with us any innovation in pricing they had introduced in the past 12 to 24 months.

Our findings uncovered some interesting themes in the area of pricing decision-making processes and how pricing strategies varied by pricing orientation. Our study also revealed that pricing was indeed not perceived as a field subject to innovation by the vast majority of respondents. At first, respondents were surprised by our question related to innovation. They probed for clarification and then had to think hard about it.

> I can't think of anything we've introduced in terms of a tool. No, I can't think of anything. You know, we've done a lot more of this, the development of these

value chain sort of spreadsheets, etc. But I can't say it's a tool we've introduced per se.

CEO of a firm using competition-based pricing in the advanced composites market

I would say no. I think we've done it pretty much the same since I've been here. We have not introduced any pricing innovation.

President of a firm using competition-based pricing in the automotive interior market

Not, not that I'm aware of here, in terms of, – no. It's not to say they're not there, I'm just not aware of them. If somebody is using some type of program, or some type of software, or something.

CEO of a firm using cost-based pricing in the chemicals industry

Other respondents introduced changes to existing pricing practices. These responses were related to pricing formula and cost indexing:

The most innovative thing we've done is come up with this indexing agreement. It's a long, tedious process to approach a Tier 1 customer with that idea, to lay out the game plan, to present it at all different levels of purchasing.

Account Manager in a firm using competition-based pricing in the automotive interior market

It is 2005 that we launch formula pricing, because 2006 was the first year of really selling with the resin escalator/de-escalator. This quoting system, that came out – we launched that less than 18 months ago. Prior to that, price quotes were handled a lot of different ways across (company) and there was not a tremendous amount of control over what was happening.

President of firm using value-based pricing in the automotive plastic packaging market

Finally, other respondents were to clearly define and elaborate on some innovative pricing approaches or programmes introduced over the past two years. Most of these respondents worked for firms using value-based pricing and had a formalized pricing process.

We implemented the discount review process. Because we have a very defined sales management process (SMP). And the defined process is the ongoing review and execution of our sales strategy by account.

CEO of a firm using value-based pricing in the construction market

We created a process that was a transition from raise price to give price back. It involved several steps. It involved first step to aggressively hold. Then (the second step) was to aggressively engage .... And then there was manage price.

> So those were the three steps. It's nothing scientific but it was something that I think in a very short period of time we learned how to do that.
>
> Sales Manager in a firm using value-based pricing in the speciality chemicals market

During these interviews we identified only one instance where a company had actually implemented an innovation in pricing strategy:

> We manufacture [industrial equipment]. And increasingly, more of our products are being sold into our customers as a bundled service. It's called [omitted]. Ten years ago, we just went out and sold [products]. We would compete on features and benefits of the hardware .... Now our business is driven by a service model called [omitted] where customers – it's an operating lease. Bundled into that operating lease for the equipment is a service contract on it with guaranteed turnaround times on the servicing and data – we centralize the data collection, we do diagnostics, and we provide data back to our customers about risk in the operations. So our customers – instead of getting $100,000 sale today, we would get a four-year contract that's probably $350,000 or $400,000 paid over 48 months.
>
> CEO of an industrial equipment firm

In sum: during these interviews it emerged that innovation in pricing was a rare exception. We interviewed 44 individuals at 15 industrial companies and identified only one case where an innovation in pricing strategy was actually implemented. Executives we interviewed expressed an interest in the topic of innovation in pricing but also admitted that their current knowledge on this topic was limited. The findings from this research thus provided us with a further motivation to collect recent academic findings as well as best practices from pricing executives on innovation in pricing. With this we hope to raise the awareness on innovation in pricing in both academia as well as business practice.

Book content

This book is the result of a rigorous selection process of the most insightful papers dealing with innovation in pricing. Our initial call for papers generated a high interest from both academia and pricing professionals. Ultimately, over 50 papers were submitted for review. After multiple rounds of a double-blind review process, we selected 26 papers. They are organized in four sections as shown in Figure 1.3 below.

Innovation in organizing the pricing function

Stephan Liozu and *Kellie Ecker* examine options for the organizational design of the pricing function in firms. They conduct a literature review on centralization and decentralization. Four possible designs of the pricing function are proposed: centralized, decentralized, centre-supported and centre-led. The authors conjecture

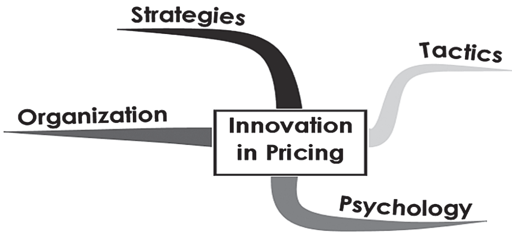

FIGURE 1.3 Overview of book contents

that centre-led pricing, which combines elements of centralization with elements of decentralization, is superior to other organizational designs. The authors also present their own research on the effectiveness of centre-led pricing. The authors hope that these research findings contribute to the ongoing debate on organizational design of pricing for performance.

Niklas Hallberg and *Linn Andersson* investigate the organizational barriers that prevent companies from implementing innovative pricing strategies, such as value-based pricing. This research, based on two case studies, identifies two main barriers: excessive decentralization and sales force incentive schemes. The authors also discuss how firms addressed these challenges: centralization of pricing authority and increased sales force control and training. The results of this study indicate that innovation in sales-force management, and, more specifically, centralization of pricing authority, is a key success factor for the implementation of value-based pricing through customer value map analysis, especially when sales force value-based pricing and value-based selling capabilities are not yet fully developed. Examining this interaction effect between decentralized pricing capabilities and the effectiveness of centralizing pricing authority is certainly worthy of future study.

Stephan Liozu, *Andreas Hinterhuber*, *Sheri Perelli* and *Toni Somers* explore the topic of the role of top executives in supporting and leading corporate pricing activities and programmes. The authors report the results of a quantitative inquiry with 557 CEOs and business owners of firms from around the globe that evaluates the levels of championing involvement of the pricing function, their perceptions on pricing and how they organize for pricing. A SEM model is proposed which includes first- and second-order measurement models. The results suggest that the level of championing from CEO and business owners in pricing positively influences firms' decision-making rationality, pricing capabilities, level of collective mindfulness and pricing orientation, thereby leading to significantly higher firm performance. This study is thus a strong call to action for CEOs aiming to improve organizational performance. The main implication: champion the pricing function.

Ron Baker and *Stephan Liozu* conjecture that the nature of senior management is changing. Firms face strong levels of competitiveness, and their business models are being challenged as a result. The authors suggest that value management at the organizational or corporate levels is becoming a number one priority. Although chief marketing and chief commercial officers are highly qualified to manage value processes, they do so along with performing a multitude of other functions or processes that distract their attention from the core function of value management. The authors propose that chief value officers, whether functionally or process-oriented, offer CEOs an expert and an ally dedicated to leading value strategies and processes at the organizational level. With their expertise, drive and dedication, they manage business value centrally and make sure that all firm processes and functions are aligned to create, quantify and capture value. This focused attention on value leads to a transformation of the firm's DNA and the adoption of business value as the firm's *raison d'être*.

Mark Stiving examines the difficult topic of measuring ROI for pricing systems investments. Pricing systems are highly underutilized partially as a result of the confusion surrounding their function and especially their ROI. The author intends to demystify these systems by explaining their three biggest capabilities (execution, analytics and science) and the types of data typically used by these systems: customer master, transaction data, waterfall data and competitor pricing. He then demonstrates a process to prove ROI by identifying the key areas where return can be found: increased margin, increased win rates, more opportunities, lower costs and reduced liabilities. Finally, attention is paid to the set of steps to incorporate all these elements in an ROI study.

Innovation in pricing strategy

Rafael Farres further investigates the role of customer value-based pricing in industrial companies. The author makes it clear that even research-intensive, innovative companies should adopt a variety of alternative pricing strategies across their product and service portfolio. The author highlights firm and environmental conditions that make value-based pricing particularly suitable and illuminates under which conditions cost- and competition-based pricing approaches are appropriate for industrial firms. The author also presents a series of pricing tools that have enabled industrial companies to implement value-based pricing strategies: the price waterfall, the price-value map, turnover build-up, terms and conditions analyser, the pricing explorer and the price-volume scatter plot. Especially for practising executives at the beginning of the transformational journey towards value-based pricing, the discussion of these pricing tools and metrics will be useful.

Linda Trevenen proposed a grounded and practical essay on the art and science of customer segmentation, which she refers to as the heart of a profitable market strategy. In this essay, she suggests that grouping customers based on what they value enables a firm to provide distinct offerings and prices to each of these customer groups. However, too often, many firms do not make the effort to segment their customer base or simply fall back along traditional segmentation lines – demographic or geographic – because these data are available and require minimal effort to distinguish between customer types. As a result of not applying a deeper needs-based segmentation, the firm is faced with price variability, lack of adherence to contracts and a culture of 'giving in'. The author makes a few recommendations that smart firms can apply for better customer segmentation: set boundaries and fences, create pricing policies, and have a deeper level of customer understanding that leads to profitable growth. This chapter explains the importance of segmentation, and the strategies and practical activities for deploying it, and describes how to implement segmentation best practices into the organization so that a segmentation strategy realizes greater profitability.

Ralf Drews conjectures that, in many companies, the 'value-based pricing' of a new product offering is applied only after the product has passed all design stages in R&D. In addition, often the pricing approach is focused only on the offering itself. Although it seems to be common practice, the author argues that this approach has major disadvantages: first, the pricing is neither considered nor made in the context of a company's other important value contributors; second, the value of product's features is unclear because they are not seen in the context of application; and last but not least, the new product is not tailored to the needs of a specific customer profile or to cultural buying preferences. If companies seek to create a product with superior value, it must be defined and priced before R&D even knows what it will look like. Furthermore, it is critical that the buying psychology of a specific customer be taken into account. In this unique paper, the author describes how companies can achieve this and which critical success factors are necessary for this uncommon but useful approach.

Greg Hunsicker and *Mike Crouch* narrate the example of the cultural transformation of the pricing orientation at ARDEX Americas. In this short case study, both authors explain the major elements of this transformation and how ARDEX Americas navigates through the journey. They explain that value-based pricing internalization requires robust initial investments in knowledge and expertise. They offer a very practical list of key lessons that allowed ARDEX Americas to make significant progress in the cultural transformation from cost to customer value.

Magnus Johansson investigates the role of pricing capabilities and processes in fast-paced B2B firms. Extant theory treats the two processes of value creation and value capture (i.e. pricing) separately. This paper suggests departing from this conceptual separation when dealing with pricing and value creation processes in fast-paced business environments, such as the semiconductor industry. In these environments value creation and value capture are iterative and intertwined, value is co-produced together with customers, and there is a high uncertainty around the total value jointly created between the supplier and the firm. This paper suggests that, in these circumstances, pricing processes have to be iterative as well and that price-setting authority has to be more localized. The contribution of this paper is thus a sketch of required pricing capabilities and processes in highly dynamic environments, which are markedly different from capabilities and processes described by extant research in static environments.

David Dvorin, *Jered Haedt* and *Vernon Lennon* address one of the critical elements of the mergers and acquisitions process: improvements in pricing. The authors propose a robust framework for assessing opportunities of improving pricing during the mergers and acquisitions process; they also highlight how to implement price increases during this process. The authors finally summarize the impact of price improvements on the enterprise value of merged or acquired businesses.

Nelson Hyde discusses four widely held pricing myths. Pricing managers seem to believe that lower prices lead to higher volumes, that customers are price-sensitive, that prices have to be set at prevailing market prices, and that lower prices increase the likelihood of closing the sale. These assumptions are, as this paper suggests, myths that prevent companies from creating and communicating customer value and from implementing value-based pricing. Overcoming these myths thus enables companies to adopt customer value-based pricing strategies.

Todd Snelgrove traces the past and present of total cost of ownership (TCO) approaches and highlights in which direction TCO could evolve. As the 'sum of purchase price plus all expenses incurred during the productive lifecycle of a product minus its salvage or resale price' (Anderson and Narus 2004), this approach is exclusively concerned with the cost side of customer value and neglects the value of customer-specific benefits (Anderson and Narus 2004). In this paper the author shows how TCO approaches can be expanded to incorporate the value of customer-specific benefits. Through case studies, this paper illustrates the difference between lowest initial purchase price, lowest TCO and an expanded view of TCO that includes the sum of all customer-specific value created. This paper also highlights the importance of communicating the price and value premium in industrial markets. The contribution of this paper is thus to illuminate that TCO can be compatible with customer value-based pricing.

Fernando Resende discusses how to optimize profitability through pricing in an environment where prices are negotiated. This paper illustrates how suppliers of complex projects can reduce their own costs through scope optimization and service-level adaptations. This paper also suggests ways to avoid price leakage through discount optimization and through a shared understanding of future required volumes, service levels and price developments.

Roberto Bedotto illustrates the benefits of a zero-based approach to pricing strategy. In many instances, path dependency and status quo bias create an environment where entrenched pricing strategies, although clearly not effective, prove hard to change. This paper suggests summarizing the company's strategy (growth, maintenance, or withdrawal) by product, application and channel. This paper then suggests analysing whether the current pricing strategy supports the company's overall strategy. This paper shows that this simple process can create an environment that is conducive to re-examining entrenched pricing practices and in which a comparison of the status quo and a strategic goal can enable the birth of new, innovative pricing strategies.

Innovation in pricing tactics

Customer value communication is an integral element of pricing tactics. *Chris Provines* analyses a series of different value-communication tools in business markets. These tools differ by interactivity and complexity. Non-interactive tools are economic benefit claims that are developed based on observational studies or customer interviews. Interactive tools are decision-support analytical models such as ROI tools and value calculators. Complex interactive tools are workflow and business-model studies. This paper then suggests using different value communication tools depending on the degree of outcome risk and the complexity of the product offering. In sum, this paper offers an up-to-date summary of case studies and recent research on innovative ways to communicate customer value in B2B markets.

Harry MacDivitt reinforces the fact that understanding, using and communicating the value created for their customers is a challenge for many businesses. He claims that this results in an inability to respond assertively and confidently to customer demands for deep discounting. Margin erosion, premature commoditization and loss of market share follow. At the heart of the issue is the lack of a unifying framework for analysing, quantifying and communicating value. In this paper, the author introduces a framework for analysing customer value. He illustrates the application using two contemporary case studies. The author claims that the proposed tool led to new insights and the creation of deeper, richer and more focused customer value propositions. This structured approach thus facilitates the implementation of customer value-based pricing.

Neil Biehn and *Craig Zawada* examine alternative approaches to measuring customer willingness to pay. The quantification of customer willingness to pay is clearly at the centre of effective, profitable pricing strategies. The authors critically examine alternative approaches to measuring customer willingness to pay in industrial markets. The authors then illustrate the importance of measuring customer willingness to pay in five specific B2B pricing models: spot pricing, agreement or contract pricing, list or matrix pricing, subscription pricing and promotional pricing.

Steven Forth highlights the role of collaboration and conversations between stakeholders to implement innovative pricing approaches. Traditional pricing-management software is based on the analysis of transactions and its use has been limited to quantitatively oriented pricing experts. In this paper, the author describes software for quantifying customer value. The software quantifies customer value to enable collaborative processes around the pricing of B2B goods and services in negotiated markets. Collaborative approaches facilitate customer value quantification. The author suggests that in the future, pricing will need to draw on and support a more diverse group than in the past.

Richard Coppoolse presents a series of tools for tracking prices. This paper discusses price-sales charts, price-mix charts, price scatter plots, price-band charts and price waterfall reports. This paper also presents tools for analysing price realization by sales representative and by customer as well as tools for tracking sales agreements with customers. Some of these tools may thus be useful for companies engaged in improving the effectiveness of their price-realization processes.

The sales function has a fundamental role in the process of communicating and delivering value to customers. *Mike Moorman* proposes a sales-effectiveness framework composed of three parts to implement value-based selling. First, an analysis of competitors, customers and markets delivers customer insight. Then, the go-to-market-strategy is built on a segmentation strategy, a value-proposition strategy, a channel strategy and robust sales processes. Finally, operational excellence aligns sales resources, sales force capabilities, motivation, tools, marketing programmes and sales support tools to implement value-based selling vis-à-vis customers. The key feature of this paper is a structured approach blending customer, company and competitor insight (Hinterhuber 2004) to implement value-based selling.

Darren Huxol analyses tactical pricing under outcome uncertainty. In circumstances where customer received value varies widely due to exogenous factors, sellers need to conceive pricing strategies that reflect a range of different outcomes achieved. This paper proposes risk-sharing agreements and performance-based pricing as mechanisms that can align buyer and seller interest under situations of uncertainty. In line with current pricing theory – and in almost certain contrast to many prevailing pricing practices – this paper does not suggest reducing price under situations of outcome uncertainty.

Psychological aspects of pricing

Ben Lowe, *Julian Lowe* and *David Lynch* provide a comprehensive overview of behavioural aspects of pricing. Behavioural economics has now definitely entered the mainstream research in management: in a recent special issue in the *Strategic Management Journal* (Powell *at al.* 2011), Levinthal (2011) asks the question 'A behavioural approach to strategy – what's the alternative?' Research examining behavioural and psychological aspects of pricing seeks to understand how customer perceptions of value and price are formed. Consequentially, the paper analyses the following salient aspects of behavioural pricing: factors driving customer value perceptions; the role of internal and external reference prices, fairness perceptions in pricing, implications for price reductions (e.g. discounts, coupons, free gifts) and price increases, price endings, price quality perceptions, consumer price knowledge and, finally, price setting in nonmarket contexts. This paper emphasizes that customer willingness to pay is driven by both transaction value ('economic utility') and acquisition value ('psychological utility'). As pricing and marketing managers gain an improved understanding of factors driving psychological utility, their ability to set profitable prices also increases.

Carmen Balan specifically examines research on odd prices. Odd prices (e.g. 99 cents) have a long history: in 1965, the retailer Dave Gold discovers that charging 99 cents for all bottles of wine increases sales of all bottles, including those which previously had cost 89 cents or 79 cents. He exits the liquor business and becomes a highly successful entrepreneur after launching the 99 Cents Only chain of stores (Porter 2011). This paper summarizes current research on odd prices which points out that odd prices lead to increased demand due to both a level effect (i.e. customers underestimate prices) and an image effect (i.e. the product appears to be on sale). Odd prices still seem to work, although most of what we know stems from research in consumer-good markets. This paper suggests both an increased use of odd prices in industrial markets as well as further research examining the effects of odd prices in B2B environments.

Anshu Jalora illustrates the diffusion of two very well-documented effects of behavioural pricing in the software industry. The compromise effect, whereby brands gain share when they become the intermediate option in a choice set, is illustrated with actual examples of software pricing. The decoy effect, whereby brands gain share in the presence of an irrelevant (decoy) option that provides a compelling justification of a previously less attractive option, is illustrated through an experiment as well as through an actual example of pricing in the software industry. These examples illustrate the importance of behavioural research in order to favourably influence customer perceptions of value and price. To the robust body of research on this topic (Kivetz *et al.* 2004b) this paper thus adds some further examples. Also here, pricing managers are well advised to put some of these research findings into practice.

The next frontier in pricing

The final paper in this collection is by *Kevin Mitchell.* This paper highlights the evolution of the pricing profession for the past three decades. Pricing evolved from a clerical position to a tactical, commercial function to, finally, a C-level function deeply aligned with – and in many cases driving – company strategy. The author highlights the reflections of the Professional Pricing Society on critical elements for the future of the pricing function.

As the editors of this book, we have been honoured to work with highly talented pricing practitioners and scholars from around the world. We are blessed by the level of innovative and creative thinking that we have been able to bring to the surface by giving these experts an opportunity to share their thoughts, approaches and views. We thank all authors for their contributions to and participation in this exciting project.

It is our intention to contribute to the future evolution of the pricing profession. We are dedicated to making pricing gain the respect it deserves and to transforming the perceptions of pricing from a pure analytical and static science to a more strategic, innovative and impactful element of the marketing mix. Please join us in our journey to advance the pricing profession.

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