
Research Article

The conceptualization of value-based pricing in industrial firms

Received (in revised form): 26th August 2011

Stephan M. Liozu^a, Andreas Hinterhuber^b, Richard Boland^a and Sheri Perelli^a

^a*Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio, USA; and*

^b*Hinterhuber & Partners and Bocconi University, Milano, Italy.*

Stephan M. Liozu is President and CEO of Ardex Americas and PhD in Management candidate at Case Western Reserve University, Weatherhead School of Management (Cleveland, Ohio).

Andreas Hinterhuber is Partner of Hinterhuber & Partners (Innsbruck, Austria) and long-term visiting professor at Bocconi University (Milan, Italy).

Richard Boland is Department Chair and Professor of Information Systems Case Western Reserve University, Weatherhead School of Management (Cleveland, Ohio).

Sheri Perelli is Senior Lecturer and International Business Development Consultant, Case Western Reserve University, Weatherhead School of Management (Cleveland, Ohio).

Correspondence: Andreas Hinterhuber, Falkstrasse 16, 6020 Innsbruck, Austria .
E-mail: andreas@hinterhuber.com.

ABSTRACT The current literature is largely silent on how executives interpret the concept of value-based pricing. Although only a minority of companies adopts value-based pricing approaches, little is known about antecedents of alternative pricing approaches. We suggest this may be because of the fact that few professionals possess an understanding of value-based pricing, which is both academically rigorous as well as practically relevant. Our interviews with 44 executives in 15 US industrial firms show that those practicing value-based pricing interpret customer value in ways fully consistent with the current academic literature. Those practicing cost- or competition-based pricing, however, show a poor understanding of value-based pricing, which may explain why their companies practice cost- or competition-based approaches.

Journal of Revenue and Pricing Management (2012) 11, 12–34. doi:10.1057/rpm.2011.34

Keywords: pricing; industrial firms; value-based pricing; managerial cognition

ON THE LOW ADOPTION OF VALUE-BASED PRICING

Of the three main approaches to pricing in industrial markets – cost-based, competition-based and value-based – the last is considered superior by most marketing scholars (Anderson and Narus, 1998; Cressman Jr, 1999; Nagle

and Holden, 2002; Ingenbleek *et al*, 2003; Hinterhuber 2004) and pricing practitioners (Forbis and Mehta, 1981; Dolan and Simon, 1996; Nagle and Holden, 2002; Fox and Gregory, 2004). But few industrial firms have adopted value-based pricing. A meta-analysis of pricing-approach surveys conducted between



1983 and 2006 reveals an average adoption rate of just 17 per cent (Hinterhuber, 2008), and cost- and competition-based approaches continue to dominate in industrial pricing practice (Coe, 1990; Shipley and Bourdon, 1990; Noble and Gruca, 1999; Ingenbleek *et al*, 2001).

Historically, pricing in general has received little attention from practitioners and marketing scholars (Malhotra, 1996; Noble and Gruca, 1999; Hinterhuber, 2004; Hinterhuber, 2008). Ingenbleek (2007) reviewed 53 empirical pricing studies and concluded that pricing literature is highly descriptive and fragmented, and that theoretical development on how price decisions are made in firms is limited.

Furthermore, the marketing and pricing literature is silent on the consequences of pricing orientations on overall company performance (Cressman Jr, 1999; Ingenbleek, 2007; Hinterhuber, 2008), as well as on how organizational and behavioral characteristics of industrial firms may affect the adoption of pricing orientation (Ingenbleek, 2007), and why value-based pricing is not more commonly adopted among industrial firms. But one of the underlying reasons may be that executives lack a rigorous understanding of the concept of value-based pricing.

Our research enquiry was designed to both address this phenomenological gap and explore managers' understanding of value-based pricing in their own words. We designed a qualitative inquiry based on semi-structured interviews with managers in small and medium-sized US industrial firms that have successfully adopted value-based pricing as a pricing orientation and with managers in similar firms that have not. By probing the 'lived worlds' of these executives, we hoped to generate a grounded theory about the organizational practices that contribute to or hinder the implementation of value-based pricing strategies in industrial markets and to gather information about managers' understandings and perceptions of the concept of value-based pricing.

Our results suggest that more than 40 per cent of executives lack an understanding of

value-based pricing which is at the same time academically rigorous as well as practically relevant. This lack is especially pronounced in firms practicing cost- or competition-based pricing approaches, where the concept of value-based pricing is typically confused with the concepts of total cost of ownership (TCO), value added, competitive advantage or other concepts. Our results also suggest that firms practicing value-based pricing mostly define the concept of customer value in ways that are fully consistent with current academic research: either as customer maximum willingness to pay or as the cost of the customer's best competitive alternative plus the value of any company-exclusive differentiating features.

THEORETICAL FOUNDATION

Our work was informed by pricing literature focused on firm pricing orientation, on value-based pricing theory and also on the definition of value in business markets.

Pricing orientation in industrial markets

The marketing and management literature is rich in studies related to market orientation and strategic firm orientation. Both streams of literature have taken a central role in discussions about marketing management and firm strategy (Day, 1994). Studies on market orientation have focused on its antecedents and its consequences for firm performance (Narver and Slater, 1990; Jaworski and Kohli, 1993; Slater and Narver, 1994; Kirca *et al*, 2005). Jaworski and Kohli (1993) define market orientation as 'an organization-wide generation of, dissemination of and responsiveness to market intelligence', and Narver and Slater (1990) describe its three components as customer orientation, competition orientation and interfunctional coordination. Strategic orientation is defined as the strategic direction taken by a firm to 'create the proper behavior for the continuous superior performance of the business' (Narver and Slater, 1990). The prolific literature on market and

strategic orientation strongly influenced the advancement of the modern marketing concept by providing firms with behavioral and organizational perspectives on how to achieve sustainable above-average performance.

Consistent with the lack of interest by marketing scholars in researching the pricing field (Malhotra, 1996; Noble and Gruca, 1999; Hinterhuber, 2008), the notion of pricing orientation in firms has not been appropriately defined and explored. Only a handful of academic papers have discussed pricing orientation in business markets. In 2008, Hinterhuber made a strong contribution to the topic by conducting a broad and comprehensive review of 2 dozen surveys conducted between 1983 and 2006. The meta-analysis revealed the adoption rates of alternative pricing approaches (cost-based, competition-based and value-based) in business markets and showed that the competition-based approach continued to dominate in industrial pricing.

A managerial pricing orientation ‘deals with decisions relating to setting or changing prices. It also includes price positioning and product decisions introducing new pricing points to the business unit’s product or service mix’ (Smith, 1995). Different firms adopt different pricing strategies: The current literature classifies pricing strategies into cost-, competition- and customer value-based approaches (Shapiro and Jackson, 1978; Cavusgil *et al*, 2003; Ingenbleek *et al*, 2003), based upon whether firms primarily consider costs, competitive price levels or data on customer willingness to pay in their price-setting decisions. We also adopt this classification in our empirical analysis.

Value-based pricing theory and the definition of value in business markets

Most researchers conceptualize value as a function of the benefits that the buyer receives, which researchers then compare with the costs incurred to obtain these benefits. Researchers, however, disagree both on which elements to include in the benefits component of value and

on how to treat the cost component – more specifically, the acquisition costs – in the customer value function.

In terms of the benefit component, some researchers confine benefits strictly to quality (for example, Sivakumar and Raj, 1995), whereas others take a much broader view: Anderson and Narus (1998) consider value not only in terms of economic benefits received, but as the sum of all benefits, including social, service and other benefits, received by the customer from a firm’s offering. Clearly, risk reduction is one of these intangible benefits. Various studies (for example, Jackson *et al*, 1995) indicate that one of the issues industrial buyers face is the risk of evaluating existing and new products/services. For the evaluation of services the aspect of risk is even more pronounced. Sellers thus create value for their customers by reducing the uncertainty and risks of product/service performance.

In terms of the cost component, conceptually, researchers interpret the role of costs and its impact on customer value in two different ways. According to Flint *et al* (1997); Walter *et al* (2001) and Zeithaml (1988), customer value is the net difference between perceived benefits and sacrifices. Flint *et al* (1997, p. 171), for example, define a customer’s value judgment as ‘the customer’s assessment that has been created for them by a supplier given the trade-offs between all relevant benefits and sacrifices in a specific use-situation’. In microeconomic terms, customer value here is the difference between the consumer’s willingness to pay and the actual price paid, that is, consumer surplus or the excess value retained by the consumer. The difficulty of this approach to defining economic value lies in the fact that price is part of the definition: each time researchers consider alternative approaches to value delivery and pricing strategy, value to the customer will necessarily change.

A second line of thought defines customer value differently: Forbis and Mehta (1981),



Golub and Henry (2000), Nagle and Holden (2002), and Priem (2007) define value to the customer as the customer's value threshold – the sum of the combined accrued benefits that accrue as a result of purchasing a given offering. According to Nagle and Holden (2002, p. 74), 'A product's economic value is the price of the customer's best alternative – the reference value – plus the value of whatever differentiates the offering from the alternative – the differentiation value'. Bowman and Ambrosini (2000) define customer value as 'value in use', as the specific qualities and benefits perceived by customers in relation to their needs and expectations. Priem (2007, p. 219) refers to this conceptualization as 'consumer benefit experienced' and illustrates the application of this concept also in business-to-business relationships (Priem, 2007).

This broad conceptualization excludes the acquisition costs of the product or service from the computation of value.

On the basis of these contributions we define customer value as the customer's maximum willingness to pay. This view corresponds to the microeconomic term of a customer's reservation price, the price at which the consumer is indifferent to buying and not buying (Moorthy *et al.*, 1997). Wang *et al.* (2007) suggest that reservation price is not a single price but a range of values, where the lower bound indicates the price at which the consumer certainly buys the product, the midpoint the price at which the consumer is indifferent, and the high end the price at which the consumer will no longer buy the product (Wang *et al.*, 2007). The price point at which the customer is truly indifferent is close to the average value between the extreme ends (Wang *et al.*, 2007).

We further suggest that customer value is a multidimensional construct. In summary, customer value is equal to the maximum amount a customer will pay to obtain a given product or service, in other words, the price at which the customer is equally indifferent to purchasing and to foregoing the purchase.

A summary of alternative definitions of value-based pricing methodologies of the current literature is given in Appendix B.

METHODS

Methodological approach

We conducted a qualitative study using semi-structured interviews to develop a grounded theory (Corbin and Strauss, 2008) about how managerial understandings of alternative pricing approaches and other organizational factors affect the adoption of a pricing approach in industrial firms. The use of qualitative research is warranted as our research, interested more in words than in numbers, aims at exploring context-dependant causal relationships (Maxwell, 2005). We aim to gain a better understanding of how managers in these firms make pricing decisions and what roles they play in the firm's pricing process. Grounded theory is an explorative, iterative and cumulative way of building theory (Glaser and Strauss, 1977). The main features of this approach involve constant comparison of data and theoretical sampling (Corbin and Strauss, 2008). Constant comparison is a rigorous method of analysis that involves intensive interaction with the data (Maxwell, 2005) to contrast emerging with already-emergent ideas and themes. Simultaneous collection and processing of data (Lincoln Yvonna and Guba, 1985, p. 335) leads to the generation of firmly grounded theory. Theoretical sampling refers to ongoing decisions about whom to interview next, and how. As the constant comparison of data-yielded insights about our phenomena of interest we were able to obtain broader comparative and deeper personal narratives about pricing experiences and adjusted the sample in response to emerging ideas and themes.

Sample

Our sample consisted of 44 managers in 15 small and medium-sized US industrial firms

(Appendix C). We focused on small and medium businesses as they represent a vast majority of the US firm population as indicated by the Small Business Administration. Furthermore, as prior publications related to value-based pricing mostly focused on large-size organizations, we wanted to inquire on how small and medium businesses organized for pricing. Relying on the principle researcher's professional network and on advice from the Professional Pricing Society, we identified over 36 small and medium-sized US firms in three industries: building materials, transportation products and resins and plastics products. Managers in each firm were contacted for initial qualification with respect to their pricing orientation. The intention was to then request participation in the research project from small and medium firms that used the three basic pricing orientations. Fifteen of the qualified companies agreed to participate in our study.

Seven firms were small as defined by the Small Business Administration 2007 size standards by industry (www.sba.gov/size) as having between 50 and 380 employees; and eight were medium-sized, having between 900 and 2200 employees.

Six firms (18 interviews) adopted cost-based pricing, five (14 interviews) used competition-based pricing and four (12 interviews) relied on value-based pricing. Two to four interviews were conducted at each firm. Respondents included 15 CEOs or top executives, 18 sales and marketing managers with full or partial responsibility for pricing, and 11 finance and accounting managers with decision-making authority. The firms were geographically diverse, as interviews were conducted in 10 US states.

Data collection

The primary method of data collection was semi-structured interviews conducted over a 3-month period from April to June 2010. Thirty-seven interviews were conducted in person at the respondents' place of employment, and seven were conducted by telephone. The interviews, averaging 60+ min,

were digitally recorded and subsequently transcribed by a professional service.

We focused on managers' experiences in making pricing decisions and in participating in the firm's pricing process. We asked open-ended questions to elicit rich and specific narratives and used probes when needed to clarify and amplify responses. Respondents were first invited to talk about themselves, their backgrounds and their work. We then 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. Third, we asked them to focus on the most significant pricing decision made in their firm over the past 12–24 months and to describe that experience in great detail. For both questions we used probes to provoke specific details about the pricing process. Finally, we asked respondents about their experience with pricing innovation and value-based pricing. The overall goal was to elicit experience-based practitioner perspectives on the organizational factors that influenced their firm's pricing orientation.

Data analysis

Consistent with a grounded theory approach, data analysis commenced simultaneously with data collection. The audio recordings of each interview were listened to several times and the transcripts of each interview read repeatedly. Three stages of rigorous coding then ensued. First, all of the transcripts were 'open-coded', a process that requires the researcher to identify every fragment of data with potential interest (commonly called 'codable moments', Boyatzis, 1998). Open coding, which can be compared with a brainstorming process for the analysis of data (Corbin and Strauss, 2008), requires detailed line-by-line readings of each transcript. We read each transcript four times to ensure capture of all codable moments, which were documented on index cards. Manual coding on cards allowed the researchers to nearly 'memorize' the data and to capture the essence



and richness of the general themes and trends emerging from the voice of the respondents. We identified and labeled (Boyatzis, 1998) 2554 such words, phrases or longer sections of text in the 44 interviews. These ‘codable moments’ were sorted and assigned to pre-existing or new categories that included similar excerpts from other interviews. In a second phase of coding (axial coding) these categories were further refined as we compared and contrasted them, a process that resulted in the emergence of patterns and themes. During the axial coding phase we reduced the number of categories to 92. Finally, in the third phase of the coding process (selective coding), we focused on key categories and themes that generated our findings as shown in Appendix A.

FINDINGS

Respondents were asked to share their understanding of value-based pricing. Our intention was to stay away from theoretical definition and to give them the latitude to create their own conceptualization so that we could gather

impressions about how they perceived the construct.

Finding 1: The conceptualization of value-based pricing varies from firm to firm as well as within firms.

The conceptualization of value-based pricing varied from firm to firm as well as within firms. Tables 1 and 2 illustrate this phenomenon by presenting the understanding of value-based pricing from the executives in firms that use it. A full list of conceptualizations is presented in Appendix E.

Finding 2: The conceptualization of value-based pricing is often confused with added-value programs and TCO initiatives.

Respondents working in firms that used cost-based pricing tended to confuse the concept of value-based pricing with other concepts such as value-added strategies, business model value, and value of augmented services. Table 3 presents the results of the coding of the value-based pricing understanding or definition and the

Table 1: Understanding of value-based pricing by top management of companies practicing value-based pricing

CEO – small equipment manufacturer	It's understand your value of the product compared with the best competitor, and then put a price tag on that specific value, which is delivered by a feature, and find out what – how valuable that specific feature is ... a very good tool for that is conjoint analysis.
President – plastic packaging manufacturer	It means to take the product and break it down in terms of the value that it's providing for the customer, and determining what is ... the cost of this benefit and what is the value that the customer will give us, that is the price, for that particular thing.
CEO – building materials and tools manufacturer	Value-based pricing would be the combination of understanding the level of innovation and productivity that I bring to the customer versus his alternative. That would be value-based pricing. And ... if I can calculate the significance of the innovation (and) the level of productivity that it allows the customer, then I can explain the value of my product and the pricing that comes along with it.
Business Director – engineered chemicals manufacturer	What does it mean to me? ... what is the maximum economic advantage you can bring and still drive that change versus the next best alternative ... Drive the change through the supply chain, and yet keep as much as possible to be successful in both of those. Drive the change and keep the rest.

Table 2: Understanding of value-based pricing at different levels of companies practicing value-based pricing

CEO – building materials and tools manufacturer	Value-based pricing for me would be the combination of understanding the level of innovation and productivity that I bring to the customer versus his alternative. That would be value-based pricing. And ... if I can calculate the significance of the innovation (and) the level of productivity that it allows the customer, then I can explain the value of my product and the pricing that comes along with it.
Pricing Manager – building materials and tools manufacturer	Would be in your customer’s mind, the value of what you bring to them with that product and brand ... The brand carries more value. The product carries a little bit more value, and so there is a premium that they can charge. Now what that premium is, is highly, in my mind, unscientific. That is almost art as it is science. Now I am sure they can measure that art by charging different amounts on different things and seeing the response rate’.
CFO – building materials and tools manufacturer	I think you would take the side of the customer and you would assess as a customer what value (they) get from (the) supplier? And value ... means the equation between ... the things that I get that I have an appreciation for and how much it is worth

Table 3: Themes emerging from the conceptualizations of value-based pricing

<i>Themes used to define value-based pricing</i>	<i>Number of mentions</i>	<i>Managers in firms using value-based pricing</i>	<i>Managers in firms using cost-based pricing</i>	<i>Managers in firms using competition-based pricing</i>
Value-added products and services	10	1	7	2
Value of products and products features	7	2	2	3
Customer productivity gains and savings (TCO)	6	2	2	2
Willing-to-pay and getting paid for what the product is worth	6	3	2	1
Premium pricing	5	0	2	3
Need-based segmentation	4	3	1	0
Perceived customer value	4	2	1	1
Differentiation versus competition	4	0	3	1
Market price and what the market can bear	3	0	0	3
Overall value proposition	2	0	2	0

major themes that emerged from this exercise. Ten respondents, most of whom worked for firms that adopted cost-based or competition-based pricing, related value-based pricing to the concept of value-added products or services.

The following quotes illustrate this phenomenon:

I would say I could assume what I think that it is, which is the – value-based



pricing, meaning ... there is some sort of value added to what I am doing to this product that allows me to charge X that it cost me plus what I think I am adding the value, and that equals Y, the selling price. (Finance and accounting manager in a firm that adopted cost-based pricing)

I think the term, and probably a bit more generic in nature, is really to just best understand what your overhead structure is and how to ensure that you are receiving and maintaining the appropriate margins associated with what you have in play. Yeah, I really think that we establish what we think to be a firm understanding of what our overhead structure is, and what the marketplace and industry that we serve, we establish certain boundaries around that. And to me, that is what is going to bring that value basis to how we operate. Value add is an interesting point, but it is an area that is proven to be successful for us as we have gone through, and once again, it is the introduction of anything that we have that I think, from a contract manufacturing standpoint, gets us further down the food chain to supply our customers for what they need. (CEO of a firm that adopted competition-based pricing)

Finally, other managers often associated the concept of value-based pricing with the implementation of the TCO approach, as illustrated in the following excerpts:

I think, when I hear that term, value-based, I think in terms of are there performance characteristics that the product that we're selling and we do that all the time. I mean with engine oils, you try to show the customer if they buy a semi-synthetic engine oil from us and they pay \$7.80 a gallon, versus paying \$6 a gallon from one of these independent guys that are bathtub blenders, if we can

extend their drain interval – like maybe with the cheaper oil, they're going to have to drain their oil every 10 000 miles. Well if they buy a semi-synthetic oil from us, through oil analysis, we might be able to prove to them they can run that oil for 30 000 miles instead of 10 000 miles. (Sales manager in a firm that adopted cost-based pricing)

Very simply. I understand it as trying to determine exactly what a company's current cost is for something and then going [to] present a solution ... it's trying to understand the customer's full cost and then making pricing decisions based on the customer's cost rather than on your own internal [cost]. I guess maybe that's a better way to say it. It's pricing based on the customer instead of based on you. So that's my understanding of it. (CEO of a firm that adopted competition-based pricing)

TCO is the 'sum of purchase price plus all expenses incurred during the productive life-cycle of a product minus its salvage or resale price' (Anderson and Narus, 2004). TCO is exclusively concerned about the cost side of customer value and thus neglects the value of customer-specific benefits (Anderson and Narus, 2004; Piscopo *et al*, 2008).

Finding 3: Firms practicing value-based pricing conceptualize value in ways that are largely consistent with the current literature on customer value.

A vast majority of managers practicing value-based pricing defined value as either customer benefits over the best competitive alternative or as customer willingness to pay. This definition is thus fully in line with the current literature, namely Forbis and Mehta (1981), Golub and Henry (2000), Nagle and Holden (2002), and Priem (2007). Table 4 provides an overview by firm pricing orientation. Highlighted in gray are the conceptualizations that correspond to the current literature.

Table 4: Definitions of value-based pricing, by firm pricing orientation

Firm pricing orientation	Conceptualization of 'value-based pricing'							Total	Academically grounded definitions of value (%)	
	Customer benefits over best alternative	WTP	Low price	Company costs plus value of benefits	Product performance/benefits	Unclear	Maximum benefit for money			Premium
Cost	4	3	1	3	3	2	2	—	18	39
Competition	2	5	—	2	—	2	—	3	14	50
Customer value	9	2	1	—	—	—	—	—	12	92
Total	15	10	2	5	—	4	2	3	44	57
Per cent	37	24	5	12	0	10	5	7	—	—

Finding 4: Firms practicing cost- or competition-based pricing conceptualize value in ways that are largely inconsistent with the current literature on customer value.

Firms practicing cost-based or competition-based pricing approaches, on the other hand, define value-based pricing in ways that are to a large extent inconsistent with the current literature on pricing. These companies define value-based pricing as 'low price', as 'company costs plus the value of customer benefits', as 'product performance', as 'maximum benefit for a given amount of money', as 'premium price', and so on. Only about half of the companies practicing competition-based pricing and about one third of the companies practicing cost-based pricing define value as suggested by the current academic literature (see Table 4).

Thus, a sound, academically rigorous understanding of value-based pricing is present in about 43 per cent of companies practicing cost- or competition-based pricing. That these companies have a sound understanding of customer value is, however, not sufficient to enable them to actually adopt value-based pricing. A lack of capabilities, organizational resources, top management sponsorship and other factors prevent them from actually implementing this method.

DISCUSSION

We begin by contrasting the current definition of value-based pricing in the literature with the conceptualization of value-based pricing by practicing executives in US industrial companies. We then highlight role of top executive in guiding their team through the internalization process. We conclude with implications for research and for practice.

How the literature defines value-based pricing

From a theoretical standpoint, customer value is defined in broadly two ways by the current literature: either as customer maximum willingness to pay (customer reservation price) or as the difference between benefits and price (customer



surplus). Under these two broad perspectives, the pricing literature offers a broad array of concepts related to value-based pricing (see Appendix B): the current literature in fact contains 12 different definitions of value-based pricing. The proliferation of the number of available value-based pricing methodologies may have created confusion in the mind of managers engaged in the study the field of value-based pricing.

How practicing executives in industrial markets conceptualize value-based pricing

The executives we interviewed showed wide variation in their understanding of the concept of value-based pricing. On average, only about 60 per cent of executives interpret value-based pricing in ways that are consistent with current academic literature: the others interpret value-based pricing as low-cost pricing, as premium pricing, as cost-plus pricing, as TCO, or in other ways not supported by the literature. We find, however, that the degree of understanding varies substantially with overall firm pricing orientation: executives in firms with a value-based pricing orientation show a good understanding of value-based pricing, whereas executives in firms with a cost-based or competition-based pricing orientation predominantly misinterpret the concept of value-based pricing.

The role of champions in leading the organizational transformation

Organizational pricing champions are critical drivers of the conceptualization and internalization of value-based pricing, as well as the organizational transformation that is required. Champions mobilize the organization by energizing teams, making resources and knowledge available, providing continuous emphasis and focus on the pricing orientation, and by being willing to learn from failures to break down organizational and behavioral barriers (Chakrabarti, 1974). Champions also make sure that the firm knowledge foundation is strong and anchored on the appropriate concepts. Champions also lead by creating a learning

environment grounded in knowledge exploration and exploitation that might generate superior organizational intelligence (March, 1999). Here the roles of top executives championing the pricing projects, as well as of pricing managers leading the tactical and operational implementations are critical. They both have to spend the appropriate amount of time on being trained on the appropriate concepts to, in turn, train managers and decision makers in their organizations that will be exposed to value-based pricing.

Implications for practice

Pricing is increasingly seen as key lever for improving profitability: Companies such as General Electric, DuPont, SAP as well as small and medium-sized companies aim to move toward value-based pricing approaches, dedicating substantial resources to improving the effectiveness of pricing processes (see, for example, Stewart, 2006). The adoption and internalization of value-based pricing requires, first of all, an academically rigorous and practically relevant understanding of the concept of value-based pricing. This research shows that this understanding is in no way granted: The interviews we conducted with 44 managers – including 15 CEOs or members of the management board – in US industrial firms suggest that more than 40 per cent of managers seem to be unable to correctly define customer value-based pricing. Conversely, <60 per cent define value-based pricing rigorously. A lack of understanding of what customer value is seems to prevent companies from implementing value-based pricing strategies, despite of the fact that these companies may recognize that these strategies are sub-optimal. Already 6 decades ago, academic researchers have recognized that cost-based pricing strategies lead to sub-optimal profitability: Backman (1953, p. 148) observes: ‘... the graveyard of business is filled with the skeletons of companies that attempted to base their prices solely on costs’.

For practicing managers these results thus suggest that the implementation of value-based

pricing approaches requires an academically grounded view of customer value, which is solidly anchored across multiple hierarchical layers and across organizational units. Investments in training, communication, knowledge and capability building in pricing are pre-requisites for implementing value-based pricing strategies.

Implications for research

Anderson and Narus (1998) raise the question: 'How do you define value? Can it be measured? ... Remarkably few suppliers in business markets are able to answer those questions. And yet the ability to pinpoint the value of a product or service for one's customer has never been more important'. Our research supports these concerns: few managers are able to define customer value rigorously, which may explain why these managers revert to cost- or competition-based pricing approaches.

Research on pricing processes is still comparatively rare. Dutta *et al* (2002, 2003) and Hallberg (2008) examine pricing processes and highlight the role of pricing capabilities in enabling superior company performance. The current literature further advocates the superiority of value-based pricing approaches over cost- and competition-based pricing approaches (Cannon and Morgan, 1990; Monroe, 1990; Ingenbleek *et al*, 2003), implicitly assuming that managers know what value-based pricing is.

The contribution of this study to this literature consists in highlighting the role of knowledge on customer value as antecedent of pricing capabilities. Value-based selling and the development of pricing capabilities require a sound understanding of customer value, which is by no means warranted.

LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

The findings presented in this article should be considered in light of several limitations that may impact their generalizability. Our sample of small and medium industrial firms was small (15), not randomly selected and

limited to the United States of America. The sample included only firms in three industrial sectors building products, transportation products and plastics and chemicals. A larger and more diverse sample and one including other sectors such as IT or pharmaceuticals may have yielded different findings.

Although special attention was given to the potential risks of researcher bias, it is important to mention that the principal researcher has significant experience in and knowledge about industrial pricing, in particular, value-based pricing. However, great effort was made to remain self-reflective about these risks (Corbin and Strauss, 2008) by using open-ended questions to elicit rich, unstructured narratives of respondents' experiences (Maxwell, 2005, p. 22), interpretations and understanding of pricing events and firm activities.

Our findings suggest that one reason why value-based pricing approaches are not more widely adopted by industrial firms is that value-based pricing is not fully understood by executives, who fail to distinguish this concept from others such as competitive advantage, low prices, cost-plus and total cost of ownership.

We thus call for more research probing the question of antecedents and consequences of alternative pricing approaches. Further studies probing the understanding of alternative pricing approaches, specially the understanding of value-based pricing, across other industries – including industries practicing revenue or yield management – would further contribute to the current literature. In addition, the question of financial consequences of alternative pricing approaches has been to a large part (for an exception, see Ingenbleek *et al*, 2010) been ignored. Also here, more research is needed.

REFERENCES

- Anderson, J. and Narus, J. (2004) *Business Market Management: Understanding, Creating, and Delivering Value*. Upper Saddle River, NJ: Prentice Hall.
- Anderson, J. and Wynstra, F. (2010) Purchasing higher-value, higher-price offerings in business markets. *Journal of Business To Business Marketing* 17(1): 29–61.



- Anderson, J.C. and Narus, J.A. (1998) Business marketing: Understand what customers value. *Harvard Business Review* 76(6): 53–65.
- Backman, J. (1953) *Price Practices and Policies*. New York, NY: Ronald Press.
- Bowman, C. and Ambrosini, V. (2000) Value creation versus value capture: Towards a coherent definition of value in strategy. *British Journal of Management* 11(1): 1–15.
- Boyatzis, R. (1998) *Transforming Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks, CA: Sage Publications.
- Cannon, H.M. and Morgan, F.W. (1990) A strategic pricing framework. *Journal of Services Marketing* 4(2): 19–30.
- Cavusgil, S., Chan, K. and Zhang, C. (2003) Strategic orientations in export pricing: A clustering approach to create firm taxonomies. *Journal of International Marketing* 11(1): 47–72.
- Chakrabarti, A. (1974) The role of champion in product innovation. *California Management Review* 17(2): 58–62.
- Christopher, M. (1982) Value-in-use pricing. *European Journal of Marketing* 16(5): 35–46.
- Coe, B. (1990) Strategy in retreat; pricing drops out. *Journal of Business & Industrial Marketing* 5(1): 5–25.
- Corbin, J. and Strauss, A. (2008) *Basics of Qualitative Research*. Thousand Oaks, CA: Sage Publications.
- Day, G. (1994) The capabilities of market-driven organizations. *The Journal of Marketing* 58(4): 37–52.
- Dolan, R. and Simon, H. (1996) *Power Pricing: How Managing Price Transforms the Bottom Line*. Boston, MA: The Free Press.
- Dolan, R.J. (1995) How do you know when the price is right? *Harvard Business Review* 73(5): 174–183.
- Dutta, S., Bergen, M., Levy, D., Ritson, M. and Zbaracki, M. (2002) Pricing as a strategic capability. *MIT Sloan Management Review* 43(3): 61–66.
- Dutta, S., Zbaracki, M. and Bergen, M. (2003) Pricing process as a capability: A resource based perspective. *Strategic Management Journal* 24(7): 615–630.
- Ellram, L.M. and Siferd, S.P. (1998) Total cost of ownership: A key concept in strategic cost management decisions. *Journal of Business Logistics* 19(1): 55–84.
- Flint, D., Woodruff, R. and Gardial, S. (1997) Customer value change in industrial marketing relationships: A call for new strategies and research. *Industrial Marketing Management* 26: 163–175.
- Forbis, J. and Mehta, N. (1981) Value-based strategies for industrial products. *Business Horizons* 24(3): 32–42.
- Fox, J. and Gregory, R. (2004) *The Dollarization Discipline: How Smart Companies Create Customer Value – and Profit From It*. Hoboken, NJ: John Wiley & Sons.
- Gale, B.T. and Swire, D.J. (2006) Customer value accounting for value based pricing. *The Journal of Professional Pricing* 15(4): 30–33.
- Glaser, B. and Strauss, A. (1977) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. San Francisco, CA: Aldine.
- Golub, H. and Henry, J. (2000) Market strategy and the price-value model. *The McKinsey Quarterly* 37(3): 47–49.
- Hallberg, N. (2008) Pricing capabilities and its strategic dimensions. PhD thesis, School of Economics and Management, Lund University.
- Hinterhuber, A. (2004) Towards value-based pricing – An integrative framework for decision making. *Industrial Marketing Management* 33(8): 765–778.
- Hinterhuber, A. (2008) Customer value-based pricing strategies: Why companies resist. *Journal of Business Strategy* 29(4): 41–50.
- Ingenbleek, P., Debruyne, M., Frambach, R. and Verhallen, T. (2003) Successful new product pricing practices: A contingency approach. *Marketing Letters* 14(4): 289–305.
- Ingenbleek, P. (2007) Value-informed pricing in its organizational context: Literature review, conceptual framework, and directions for future research. *Journal of Product & Brand Management* 16(7): 441–458.
- Ingenbleek, P., Frambach, T. and Verhallen, T. (2010) The role of value-informed pricing in market-oriented product innovation management. *Journal of Product Innovation Management* 27(4): 1032–1046.
- Jackson, R., Niedell, L. and Lunsford, D. (1995) An empirical investigation of the difference between goods and services as perceived by organizational buyers. *Industrial Marketing Management* 24: 99–108.
- Jaworski, B. and Kohli, A. (1993) Market orientation: Antecedents and consequences. *The Journal of Marketing* 57(3): 53–70.
- Lincoln Yvonna, S. and Guba, E. (1985) *Naturalistic Enquiry*. Beverly Hills, CA: Sage Publications.
- Malhotra, N.K. (1996) The impact of the academy of marketing science on marketing scholarship: An analysis of the research published in JAMS. *Journal of the Academy of Marketing Science* 24(4): 291.
- March, J.G. (1999) *The Pursuit of Organizational Intelligence*. Malden, MA: Wiley-Blackwell.
- Maxwell, J.A. (2005) *Qualitative Research Design: An Interactive Approach*, Vol. 42, Thousand Oaks, CA: Sage Publications.
- Monroe, K.B. (1990) *Pricing: Making Profitable Decisions*. New York, NY: McGraw-Hill Publications.
- Moorthy, S., Ratchford, B. and Taludkar, D. (1997) Consumer information search revisited – Theory and empirical analysis. *Journal of Consumer Research* 23(4): 263–277.
- Nagle, T. and Holden, R. (2002) *The Strategy and Tactics of Pricing: A Guide to Profitable Decision Making*. Upper Saddle River, NJ: Prentice Hall.
- Narver, J. and Slater, S. (1990) The effect of a market orientation on business profitability. *The Journal of Marketing* 54(4): 20–35.
- Noble, P. and Gruca, T. (1999) Industrial pricing: Theory and managerial practice. *Marketing Science* 18(3): 435–454.
- Piscopo, G., Johnston, W. and Bellenger, D. (2008) Total cost of ownership and customer value in business markets. *Advances in Business Marketing and Purchasing* 14(1): 205–220.
- Priem, R. (2007) A consumer perspective on value creation. *Academy of Management Review* 32(1): 219–235.
- Shapiro, B.P. and Jackson, B.B. (1978) Industrial pricing to meet customer needs. *Harvard Business Review* 56(6): 119–127.
- Shipley, D. and Bourdon, E. (1990) Distributor pricing in very competitive markets. *Industrial Marketing Management* 19(4): 215–224.
- Sivakumar, K. and Raj, S. (1995) Quality-tier competition: Impacts of the ‘Whether’ decision and the direction of price change. Cambridge, MA: Marketing Science Institute Report No. 95 (106).
- Smith, G. (1995) Managerial pricing orientation: The process of making pricing decisions. *Pricing Strategy & Practice* 3(3): 28–39.
- Stewart, T. (2006) Interview of Jeffrey R. Immelt. Growth as a process. *Harvard Business Review* 84(6): 60–70.

Thompson, K.N. and Coe, B.J. (1994) Gauging the value of suppliers' products: Buyer-side applications of economic value pricing models. *Journal of Business & Industrial Marketing* 9(2): 29.

Walter, A., Ritter, T. and Gemünden, H.G. (2001) Value creation in buyer-seller relationships – Theoretical considerations and empirical results from a supplier's perspective. *Industrial Marketing Management* 30: 365–377.

Wang, T., Venkatesh, R. and Chatterjee, R. (2007) Reservation price as a range – An incentive compatible measurement approach. *Journal of Marketing Research* 44(May): 200–213.

Zeithaml, V. (1988) Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing* 52: 2–22.

APPENDIX A

Table A1: Themes and sub-themes definitions

<i>Themes</i>	<i>Definition</i>
<i>Sub-themes</i>	<i>(Derived from informant's interview data)</i>
<i>Organizational confidence</i>	
People development	Firm's people development activities (coaching, performance review and so on) used to build confidence.
Internal beliefs	Employee's beliefs in the firm's products, technology, value and business model.
Communication	Communication systems and techniques used to promote change management and build confidence.
Success stories	Firm's use of business wins and success stories to build momentum, increase buy-in and build confidence.
Resilience	Sales and marketing employees's resistance to customers' pricing objections, courage to stand firm and stay the course.
Data accuracy	Data accuracy as decision making support to provide confidence in the pricing decision.
Energy	Energizing team to increase confidence level.
<i>Champions</i>	
Vision	Champions providing vision to the organization about pricing and value strategies.
Emphasis	Champions providing emphasis and support throughout the organization.
Commitment	Champions committing to the strategy and the change management initiative.
Driver	Champions being the driver of initiatives and programs.
<i>Change</i>	
Change management	Adoption of pricing approach requires management of change.
Learning curve	Adoption of pricing approach is a leaning curve.
Journey/transition	Adoption of pricing approach is a transitional process also characterized as a journey.
Mindfulness	Realization of organizational gaps, learning from failures, being opened to new concepts.
Stimulus	Stimulus within the organization for change.
Lessons learned	Lessons learned in the areas of change management and difficult transitions.
<i>Capabilities</i>	
Training	Firms' training programs and activities.
Pricing training	Firms' specific pricing training programs.
Lack of training	Respondents' declared lack of training.

**Table A1** *continued*

<i>Themes</i>	<i>Definition</i>
<i>Sub-themes</i>	<i>(Derived from informant's interview data)</i>
Sales force skills	Respondents' declared level of capabilities of the sales force with pricing and value selling.
Market research	Firms' capabilities in conducting formal market research programs.
Pricing research	Firms' capabilities in conducting formal pricing research.
Proprietary tools	Firms' capabilities in the development of proprietary tools and models.
<i>Organizational structure</i>	
Firm size and resources	Respondents' mention of size and resources as a factor influencing pricing approach.
Role specialization	Firms' team specialization in strategic areas (pricing, market research, value engineering).
Centralization	Centralization of expertise and centers of excellence.
Pricing responsibilities	Locus of responsibility in organizations.
Process formalization	Firms' declared level of process orientation and formalization.
Informal pricing review	Respondents' characterizing of the pricing review process.
Pricing process discipline	Respondent's characterization of the pricing discipline.
<i>Rationality</i>	
Margin targets	Use of margin targets and mark-ups to generate pricing decisions.
Cost models	Use of costs models and costing activities to generate pricing decisions.
Gut feeling and intuition	Respondents' declared factor used in making the final price point decision (gut feeling, intuition, collective intuition).
Guess and call	Respondents' declared factor used in making the final price point decision (guess, judgment call).
Knowledge and experience	Respondents' declared factor used in making the final price point decision (market knowledge, historical pricing, experience).
Scientific pricing process	Respondent's characterizing of the organization's pricing process.
Unscientific pricing process	Respondent's characterizing of the organization's pricing process.
<i>Exogenous factors</i>	
Competitive intensity	Level of competitive intensity and threat impacting pricing strategies and tactics.
Market turbulences	Recessions and economical crisis impacting pricing strategies and tactics.

APPENDIX B

Table B1: Identified value-based pricing methodologies in business publications

<i>Acronym</i>	<i>Value-based pricing framework</i>	<i>Year</i>	<i>Author</i>	<i>Publication</i>
—	Value-in-use pricing	1982	Christopher	<i>European Journal of Marketing</i>
EVC	Economic value to the customer	1981, 2000	Forbis and Mehta	<i>Business Horizon: McKinsey Quarterly</i>
EVP	Economic value pricing	1994	Thompson and Coe	<i>Journal of Business & Industrial Marketing</i>
CVM	Customer value models	1998	Anderson and Narus	<i>Harvard Business Review</i>
TCO	Total cost of ownership	1998	Ellram and Siferd	<i>Journal of Business Logistics</i>
TEV	True economic value	1999	Dolan	<i>Harvard Business School Cases</i>
EVE [®]	Economic value estimation [®]	2002	Nagle and Holden	Book – <i>The Strategy and Tactics of Pricing: a Guide to Profitable Decision Making</i>
EVA	Economic value analysis	2004	Hinterhuber	<i>Industrial Marketing Management</i>
—	The dollarization process	2004	Fox and Gregory	Book – <i>The Dollarization Discipline' How Smart Companies Create Customer Value and Profit from It</i>
CVA	Customer value accounting	2006	Gale and Swire	<i>The Journal of Professional Pricing</i>
IVA	Integrated value approach	2009	Schnell and Raab	<i>Pricing Advisor</i>
—	Value-based pricing framework	2010	Anderson, Wouters, and Van Rossum	<i>MIT Sloan Management Review</i>

Forbis and Mehta (1981); Christopher (1982); Thompson and Coe (1994); Dolan (1995); Anderson and Narus (1998); Ellram and Siferd (1998); Forbis and Mehta (2000); Fox and Gregory (2004); Gale and Swire (2006); Schnell and Raab (2009); Anderson and Wynstra (2010).



APPENDIX C

Table C1: Detailed sample information

<i>Criteria</i>	<i>Characteristics</i>	<i>Firms</i>
Firm size	Small	8
	Medium	7
Industry	Building products	4
	Transportation products	5
	Resins and plastics products	6
Pricing orientation	Cost-based pricing	6
	Competition-based pricing	5
	Value-based pricing	4
	Total firms	15

<i>Criteria</i>	<i>Characteristics</i>	<i>Respondents</i>
Functions	Executive leadership	15
	Sales and marketing	18
	Finance and accounting	11
Nature	Face-to-face interviews	37
	Phone interviews	7
	Total interviews	44
States	Pennsylvania, North Carolina, South Carolina, Oklahoma, Michigan, Massachusetts, Georgia, Wisconsin, Delaware and Kentucky	

APPENDIX D

Table D1: Detailed sample description

<i>Firm code</i>	<i>Number of employees</i>	<i>Size</i>	<i>Industry</i>	<i>Main activity</i>	<i>Number of interviewees</i>	<i>Functions</i>	<i>Interview type</i>
<i>Cost-based pricing</i>							
CB1	70	Small	Plastics and resins	Industrial oil and lubricants	3	President Sales Manager Controller	In Person In Person In Person
CB2	125	Small	Building products	Carpet backing and geotextiles	3	VP and GM Sales Manager Controller	In Person In Person In Person
CB3	225	Small	Transportation products	Interior trim and composites products	3	CEO CFO	In Person In Person
CB4	2000	Medium	Transportation	Railroad equipment systems	3	VP of Automotive Sales VP and Group Executives VP of Sales and Marketing Controller	In Person In Person In Person In Person
CB5	900	Medium	Building products	Commercial windows and doors	3	President CFO	In Person In Person
CB6	1200	Medium	Plastic and resin	Commodity and specialty chemicals	3	VP and GM CEO CFO Head of Business Unit	In Person In Person In Person In Person
<i>Competition-based pricing</i>							
COB1	165	Small	Building products	Exterior facade products	3	CEO CFO	In Person In Person
COB2	380	Small	Plastics and resins	Custom injection molding products	3	DIR of Marketing CEO CFO	In Person In Person In Person
COB3	50	Small	Transportation	Interior design products	2	DTR of Global Sales and Marketing President Account Manager	In Person In Person In Person



COB4	1200	Medium	Transportation	Advanced composites products	2	CEO	By Phone
COB5	900	Medium	Plastic and resins	Safety equipments systems	4	Global Business Manager President and CEO CFO VP Sales and Marketing -VP of Customer Operations	By Phone In Person In Person In Person In Person
<i>Value-based pricing</i>							
VB1	300	Small	Plastics and resins	Safety and protecting products	3	CEO VP of Sales CPM Manager	In Person In Person By Phone
VB2	1200	Medium	Transportation	Packaging solutions	3	President VP of Marketing Controller	In Person -By Phone By Phone
VB3	2200	Medium	Building products	Construction tools and consumables	3	CEO CFO	In Person In Person
VB4	2000	Medium	Plastics and resins	Engineered polymers	3	Customer Foci's Manager Global Business Manager National Sales Manager Corporate Effectiveness Manager	In Person In Person In Person By Phone

APPENDIX E

Table E1: Value-based pricing conceptualizations

<i>Function</i>	<i>Activities</i>	<i>Firms using value-based pricing</i>
Safety and protection products	CEO	It's understand your value of the product compared with the best competitor, and then put a price tag on that specific value, which is delivered by a feature, and find out what – how valuable that specific feature is. Again, a very good tool for that is conjoint analysis.
Safety and protection products	VP of Sales	(Company) is a company that is normally – believe it's high quality and premium products, but there is a market for products that, of course, need a high quality, but also a good price and also lower functionality. And to address this market, we address the value-based market ... for different regions and also different requirements in the same applications.
Safety and protection products	Customer Process Monitoring Manager	Well, I mean value-based pricing I think is, in my mind, is simple. It is what the customer is prepared to pay based on what the product does for the customer, and that they perceive it will do for them. Okay? So if – let me give a simple example. If I am a downhill skier, I could buy 230 cm skis. I could have a really good price on 'em. And I may be a skier, but you know what? I do not downhill race. So that product does not meet my needs, so it does not matter how low the price is; I am not gonna buy it. Right?
Packaging solutions	President	It means to take the product and break it down in terms of the value that it is providing for the customer, and determining what is – like for example, sometimes I have seen people take what is the cost of this benefit and what is the value that the customer will give us, that is the price, for that particular thing.
Packaging solutions	VP of Marketing	The term 'value-based pricing' to me would be based on any value added, things we are doing over our competitors. What are we adding to our floor price or our standard price.
Packaging solutions	Controller	I guess I would say that you would – to arrive at a price for your customer, it would be based on the value that you are providing 'em, not on any internal-cost data. And you would look at – probably go through the value that you are bringing to their business and the savings that they are gonna realize, and that would probably be the key driver as to how you price the opportunity.
Construction tools and consumables	CEO	Value-based pricing for me would be the combination of understanding the level of innovation and productivity that I bring to the customer versus his alternative. That would be value-based pricing. And how, if I can calculate the significance of the innovation, the level of productivity that it allows the customer, then I can explain the value of my product and the pricing that comes along with it.
Construction tools and consumables	Customer Focus Manager	I think the common definition that we all have is that the value-based pricing is we are pricing based on the perceived value from the customers, not based on a cost or cost plus model to the customer. Now, I think the differences get into the methodologies used to figure out what is the value to the customers versus what some other companies may do. (Company), in the past, has used certain practices like the customer acceptance test to assess whether or not the price points we are setting are in alignment with the perceived value to the customers. I think you would take the side of the customer and you would assess as a customer what value do you get from this supplier? And value means it is, you know, the equation between here's the things that I get that I have an appreciation for and how much is this worth for me? So I have a certain judgment to that. And that is what it would mean for me.
Construction tools and consumables	CFO	What does it mean to me? It is what is the economic – what is the maximum economic advantage you can bring and still drive that change versus the next best alternative. Okay, so it is always a next best alternative kind of thing. Drive the change through the supply chain, and yet keep as much as possible to be successful in both of those. Drive the change and keep the rest.
Engineered polymers	Business Director	



Engineered polymers	Corporate Effectiveness Manager	My own definition of value-based pricing is to understand the value that you deliver to your customers through your products and services, and having a pricing strategy that captures a part of that value that you deliver, which under the competitive environment, you can sort of maximize.
Engineered polymers	National Sales Manager	We talk about value-based pricing a lot, so for us what that means is we price based on several different factors that are not related in any way to the cost of the material. It is more related to how is the plastic being used? What value is that plastic – instead of as a plastic pellet, as a plastic part that is holding bearings? And so if this plastic can go into this part, which is a bearing housing, that might be worth US\$4 a pound. If it goes into this simple tape dispenser, it might only be worth \$2 a pound or \$1 a pound or 70 cents a pound. So what we do is when we talk to customers about – when they ask us for a quote, we ask them a lot of questions. “What is the application? What are you using it for? How long do you need? How much do you need to buy? Where is it gonna go? What is the end use? What is the demands of the environment?”
	<i>Firms using cost-based pricing</i>	
	<i>Activities</i>	
President	Industrial oil and lubricants	My take on value-based pricing is may be different from most. I think a lot of people talk about value from a standpoint of the things that we all do. We have trucks. We have sales people. We have technical people. So you look and say, well, you know, we have that, too. So from a true value standpoint, I honestly believe thinking for the customer on behalf of what the true savings is – I will give you a great example of it. We had a customer that by making a change saved \$3 000 000. Their spend on our fluid was probably about \$60 000.
Sales Manager	Industrial oil and lubricants	I think, when I hear that term, value-based, I think in terms of are there performance characteristics that the product that we are selling – and we do that all the time. I mean with engine oils, you try to show the customer if they buy a semi-synthetic engine oil from us and they pay \$7.80 a gallon, versus paying \$6 a gallon from one of these independent guys that are bathtub blenders, if we can extend their drain interval – like maybe with the cheaper oil, they are going to have to drain their oil every 10 000 miles. Well if they buy a semi-synthetic oil from us, through oil analysis, we might be able to prove to them they can run that oil for 30 000 miles instead of 10 000 miles.
CFO	Industrial oil and lubricants	I would say I could assume what I think that it is, which is the – value-based pricing, meaning I am going to – there is some sort of value added to what I am doing to this product that allows me to charge X that it cost me plus what I think I am adding the value, and that equals Y, the selling price.
VP and GM	Carpet backing and geotextiles	Yeah. For us, I would link that to our value add. We have our base goods that we make off our line. And now we are getting more into adding some additional value to it. We have partnered with an outside converter, and they have just recently built a line that they will now basically toll manufacture for us our value-add goods, which for us could be an adhesive. That is a big one for us.
Sales Manager	Carpet backing and geotextiles	If you are saying value-based, it is a good product at the right price delay way that you can to make them successful, yeah, I understand on time that you provide service for, and you help the customer and that. And that is what we do.
Controller	Carpet backing and geotextiles	To me, that would be looking at all – that whole bundle of services that we are providing to somebody. If we are spending time running trials to develop a product, the things that we do from an inventory standpoint to ensure that the customer never runs out, to the technical service guys that we send out periodically to help the customer processing new material. All of those things are part of what we call our SG&A, our overhead type costs and you typically do not get into a cost calculation when you are doing kind of a cost plus pricing setting. So yeah, we need to take a look at that.

Table E1 *continued*

<i>Function</i>	<i>Activities</i>	<i>Firms using value-based pricing</i>
CEO	Interior trim and composites products	It means trying to size up what this is worth to our customer and price it from that standpoint. So to me, that would be – I do not know what it is to you, but to me, that would say we have programs where we have a certain technology that allows our customer to realize the lower scrap rate, substantially lower than our competition. And we think it is pretty unique, and we will place some value on what that scrap rate is worth to our customer, and say we should be able to capture some portion of that premium.
VP of Automotive Sales	Interior trim and composites products	Value-based pricing just by interpreting what – to me that would be providing, depending on product, customer, the situation, something that could be priced differently for different situations – the same product – depending on the situation. Let us say a customer – I am purely just shooting at this, Stephan, but a customer that we have and some customers that have long-term agreements with would be better capable and suited to provide, I will call it better value price to them – a better value proposition to them than a smaller customer that has low volume is a payment risk – is a receivable risk and they would have a different price structure and model.
CFO	Interior trim and composites products	I understand it in terms of the value that it brings to the customer. So I guess it goes beyond just a product, but kind of the composite cost of the customer, the logistics and the scrap and what other things they have to put on top of it to make it work.
VP and Group Executive	Railroad equipment systems	I think it comes back to the philosophy of trying to understand how your product is viewed by the buyer and what are the things that are important. So it is really understanding his purchasing criteria and requirements, what does he value, what is he looking for. And understanding your market in a very profound way because then you do not leave money on the table, you are not as likely to, or your do not overprice and miss the business because you really missed what the customer's looking for. So I think that, and then understanding the competitive environment is very important, too. Not only with their prices but what is their value proposition and how does your compare with that. Because if all you do is listen to the customer, they are going to give you one dimension and it is all going to be about lower price and you have to really profoundly understand the reality from the total business perspective.
VP of Sales and Marketing	Railroad equipment systems	For me, it is what some good or service is worth to the customer. What is he willing to pay, and why is he willing to pay that? So you know, when you get in these discussions or in planning these things, how do you differentiate yourself? We have a tendency because we are engineering driven. Sometimes we have a tendency to differentiate ourselves from the view of, 'I am an engineer, and I just made this thing better.' As a sales guy, I always look to see what is cost drivers – what causes them the pain, what causes them frustration.
Controller	Railroad equipment systems	If I were to hear the term 'value-based pricing,' it would be the cost of the product plus the service that we provide to the product to make sure that it works for our particular customer's application.
CEO	Commercial windows and doors	What would be my definition of value-based pricing? Well, probably along the lines for the end user or for the customer would be, in essence, him getting the most for his money. Part of our job, as we look at it, is trying to be somewhat consultative. We are not gonna be the cheapest guy in the marketplace, but we will try to work, especially on negotiated stuff, with our clients and the whole design team. And the more information that they share, for instance, around their budgeting, the better we could offer for them. So if we know what their desired intents are, we are gonna try to not oversell them on something that is beyond what they are looking for, nor undersell them on something that is below what they are looking for. So from a value standpoint, we try to give 'em the most for their money.
VP and GM	Commercial windows and doors	When you say value-based pricing – I am not sure. I think when you say value-based pricing, I think, in my terms here at (Company) that terms are of our cost plus mentality, but I think value-based pricing, I think what you are probably talking about is understanding the value of your product in the marketplace, and then pricing appropriately.



CFO	Commercial windows and doors	I would definite it as segregating your products into different market segments for different customers, different industries, understanding the need of those industries, determining what their – the competition is for those specific niche areas, and then establishing pricing based on what the needs of the customer are versus what the competition is offering and what your differentiation is in the marketplace.
CEO	Commodity and specialty chemicals	What it means to me is getting the maximum price for the type of value that our product offers. Okay. And the way to do that is, as I said before, is truly understand the market dynamics, market trends, the customers' needs, desires, what is driving your decision.
Head of business unit	Commodity and specialty chemicals	To me a value-based pricing would be you take your costs that is up to a point, you have all your costs. That takes you to X, and then you add on top of that what is the perceived value? But then my personal comment on that through my industry experience is you have to do that. And you come up with something. Then you have your reality check of the market, meaning is that product so much better than a competitive product? That I can come up with my own perceived value, but if I do not have any validity with the market on that, I can think I can sell a product at \$1, but my customers say, 'Well, that is fine, but I currently have a product here. And I pay 90 cents. And I will not pay \$1 for your product.
CFO	Commodity and specialty chemicals	Um, to me, and it could be my own interpretation of this, what you are able to bring to the customer and looking at all aspects and all of whether or not there is a technical aspect, an R&D aspect, certain fit for you aspect. In other words, of your product and trying to maximize what you can get out of it with your customer, that is my view of it.
<i>Firms using competition-based pricing</i>		
<i>Activities</i>		
CFO	Exterior Façade Products	I guess from all the education I have had, I would look at that being that you establish the value of every part of what you do, and you try to get a premium for the value that you offer to the marketplace. So you' want to make sure that you are truly getting paid for the value you offer to the market. That is how I would interpret it.
Director of Marketing	Exterior Façade Products	Would be in your customer's mind, the value of what you bring to them with that product and brand. So if Macintosh, to use consumer products, Macintosh comes in and says, 'I have got this phone. It is got a few really cool Macintosh things'. To me as a consumer, the brand carries more value. The product carries a little bit more value, and so there is a premium that they can charge. Now what that premium is, is highly, in my mind, unscientific. That is almost art as it is science. Now I am sure they can measure that art by charging different amounts on different things and seeing the response rate.
CFO	Exterior Façade Products	You know, you are selling on like the benefits and features of the products or the company, you know, and you should be getting a premium for that if there is a perceived premium for that in the marketplace.
CEO	Custom injection molded products	I think the term, and probably a bit more generic in nature, is really to just best understand what your overhead structure is and how to ensure that you are receiving and maintaining the appropriate margins associated with what you have in play. Yeah, I really think that we establish what we think to be a firm understanding of what our overhead structure is, and what the marketplace and industry that we serve, we establish certain boundaries around that. And to me, that is what is going to bring that value basis to how we operate. Value add is an interesting point, but it is an area that is proven to be successful for us as we have gone through, and once again, it is the introduction of anything that we have that I think, from a contract manufacturing standpoint, gets us further down the food chain to supply our customers for what they need where they are.
Director of Global Sales and Marketing	Custom injection molded products	That I would basically not worry – the costs are gonna be what they are. And I can say I can do it for \$5.00. But if the value of this calculator is \$10.00, I should sell it for \$10.00, regardless. Yeah, I think, if that is the correct definition. I mean when we see the opportunity to – if someone is asking us to do something that we have three competitors who are saying it is gonna cost X to do it, and we can do it for half of that, we will not do it for half of that.
CFO	Custom injection molded products	I would think about our value added products we sell with the value add services we add into the business. But I do not get involved with the pricing of that at all.

Table E1 continued

<i>Function</i>	<i>Activities</i>	<i>Firms using value-based pricing</i>
President	Interior automotive design products	You know, I would say it is – to take a look at it from a customer's perspective in terms of value, you bring to the table to them and making sure you are getting fair value, fair dollars for what you are bringing to the table. In example of the Toyota one where you look at it and say, 'Okay, you can buy from us for 30 per cent over the material that has historically been higher aesthetic'. So if they are 30 per cent more expensive, if I can level out the aesthetics, in a sense, I should be able to charge 29 per cent premium on my material and be 1 per cent less.
Account Manager	Interior automotive design products	Well, it is, in my opinion, it is all relative to the value of your product. I mean is it an aesthetic product? Is it a performance product? It is all about perception, I think. Perceived value. You know, can you – where can you price your product according to the value that customers are going to get out of using it?
CEO	Advanced composites products	Well, for me, what that means is looking at ultimately the benefit that the customer ultimately gets from your product, under every mechanism, not just in terms of performance, but in terms of the total value that you provide to the customer. And then turning that around and saying, "What is that ultimately worth?" Okay? And in terms of what someone is going to be willing to pay for your product.
Global Business Manager	Advanced composites products	Value-based pricing to me means that you understand what your product brings to a certain application and what value it really brings. And you are able to get the pricing that you believe the value deserves.
CEO	Safety equipment and systems	Very simply, I understand it as trying to determine exactly what the – what a company's current cost is for something and then going – presenting a solution – an alternative to that that is priced the same with higher quality or priced lower with the same – it is trying to understand the customer's full cost and then making pricing decisions based on the customer's cost rather than on your own internal – I guess maybe that is a better way to say it. It is pricing based on the customer instead of based on you. So that is my understanding of it.
VP of Sales and Marketing	Safety equipment and systems	I understand it to be – I will use it for the practical example as opposed to try to define it. Cost plus is nothing than that I want to hit 55 per cent gross margins to make my business run on all of my instrument sales, therefore, I go down and I get my standard costs once a year from manufacturing. And it is whatever it is, and I multiply that by whatever the math is to get me a 55 per cent gross margin, and that becomes my price. That would be a cost plus pricing strategy. Value-based pricing would say, 'Okay, what is the market gonna pay based on my research around talking to customers, seeing what pricing's already in the market from competition, and what my own judgment is of the value of my offering?' And I am gonna say, 'I think I can get a buck for this'. And if it costs me 95 cents to make, then my gross margin's 5 cents. If it costs me 5 cents to make, then my margin's 95 cents. But what I am gonna – I am gonna work from the customer backwards and the value proposition backwards, and I am gonna build that on.
VP of Customer Operations	Safety equipment and systems	Value – my definition of value-based pricing was – I guess a short answer would be whatever the market will bear. Forget about what our cost it. Forget about what our margin is. It is whatever the market will bear. If we have a list price \$1000, and we see the market will bear \$1200, \$1300, \$1400, that is value-based pricing. The difference between the two.
CFO	Safety equipment and systems	Well, I know that we have looked at different pricing and different costing models on activity-based costing, I would say. But, to me, value-based, I go back to we have looked at what the market will bear, and we start through this voice of customer and our product management team. So I do not really – do not have a lot of extra input into the value-based side.