

VALUE DELIVERY AND VALUE-BASED PRICING IN INDUSTRIAL MARKETS

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ABSTRACT

After pioneering, but insular, work on the conceptualization and measurement of customer value in business markets undertaken in the 80s and 90s, interest in this topic is substantial since the beginning of this decade. Despite this recent interest, marketing scholars concur that value in business markets is still an under-researched subject. This contribution to the debate is threefold. The paper first proposes an own model of customer value conceptualization in business markets; based on several rounds of testing this theoretically grounded model in managerial practice indications exist to conclude that this model may offer benefits over current models.

Secondly, the paper provides a comprehensive survey of pricing approaches in industrial markets. The paper integrates this literature overview with own empirical findings. Concurrently the paper summarizes extant research on the link between pricing approach and profitability in industrial markets. The paper thirdly proposes a framework for value delivery and value-based pricing strategies in industrial markets. Proposing such a framework is both useful as well as necessary. Useful, since this framework guides new product development and pricing

Creating and Managing Superior Customer Value
Advances in Business Marketing and Purchasing, Volume 14, 381–448
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ISSN: 1069-0964/doi:10.1016/S1069-0964(08)14011-X

decisions and assists in the implementation of price-repositioning strategies for existing products; necessary, since the theoretical and practical adoption of value-based delivery and pricing strategies may have suffered from the lack of a unifying conceptual framework. Two case studies, one involving the pricing decision for a major product launch at a global chemical company, the other involving value delivery at an industrial equipment manufacturer, illustrate the practical applicability of the proposed framework.

1. VALUE DELIVERY AND VALUE-BASED PRICING IN INDUSTRIAL MARKETS – HOW ARE THEY DIFFERENT?

Value creation and value delivery in industrial markets face their own challenges and particularities which differ markedly from similar challenges in consumer goods markets. Despite the fact that industrial marketing is by now an established discipline with dedicated journals, interest groups, and university curricula, widespread misunderstandings subsists regarding the areas where consumer goods and industrial marketing overlap and where they intersect. On this topic Narayndas (2005, p. 131) provides the following view:

Business markets are very different from consumer markets. In consumer markets, large numbers of buyers have similar wants, transactions are typically small in value, products can be mass-produced, consumers' perceptions determine products' value, and companies focus on managing brands. In addition, the selling process is brief, retailing strategies play a vital role, and sales efforts are focused on end users. A business market, by contract, has fewer customers and transactions tend to be larger. Customers often need a customized product or price, the usage of the product or service determines its value, and brands mean very little to customers. Moreover, selling is a long and complex process, retailing isn't a factor and the target of the sales pitch may not be the product's end user.

A critical analysis of such statements allows one important conclusion: most of these statements are incorrect and useless for understanding the specific challenges of industrial marketing management. The statement that industrial markets are characterized by virtue of having fewer customers with larger transactions is, first of all, incorrect. The statement is, secondly, incorrect to state that brands do not play a role in industrial markets. In fact, GE, Microsoft, Intel, FedEx, or Goldman Sachs – all companies selling

primarily in industrial markets – own some of the world’s most valuable brands (Webster & Keller, 2004). Thirdly, the fact that the sales process is long or that retailing is not important is certainly not at all a characterizing feature of industrial markets. The final statement is correct – the sales pitch does not target the product’s end user: in fact, industrial marketing and selling involves addressing the needs of a variety of addressees in customer organizations.

Still today and even in prominent publication outlets misunderstandings exist on the nature of industrial marketing. So how is industrial marketing different? The main misunderstanding, which also lies behind the statements quoted above, is that industrial markets are characterized by their products. They certainly are not. Industrial markets differ from consumer markets exclusively by virtue of the type of customers served. Corey (1996, p. 1): “Industrial marketing or B2B marketing is the marketing of goods and services to producers, resellers, governments, and other nonprofit institutions for use in the goods and services that they, in turn, produce for resale to other customers. In industrial (B2B) marketing goods are normally bought for their further incorporation into other goods and services or their subsequent resale, whereas in consumer markets goods are bought for their final consumption and use.”

Which other factors distinguish industrial marketing? The necessity of dealing with a buying center is an exclusive feature of industrial marketing (Bonoma, 1982). Buying centers are comprised of the following roles, which a varying number of persons occupy:

- an initiator who recognizes the need to purchase a particular good or service,
- a user who consumes the product or service,
- a buyer who physically purchases the product or service,
- an influencer who has a say in the purchase decision (e.g. right to veto),
- a gatekeeper who determines which vendors have right to submit quote by, for example, maintaining lists of approved vendors, and, finally,
- a decider who has the final say over whether or not purchase is made.

Industrial marketing and selling thus require a sound understanding of the roles which different members of the buying center occupy and a commitment to meet each member’s different needs and requirements better than competitors.

A further distinctive feature of industrial buyer behavior occurs that sets industrial marketing radically apart from consumer goods marketing: the presence of purchasing norms and regulations (see Corey, 1989). Customers

in industrial markets are organizations. They do not only have their own buying center and professional purchasing organization, but these organizations have sets of rules and administrative requirements which typically fall into one of the following five categories (modified and expanded from Corey, 1989):

- Rules for dealing with conflicts of interest: need to signal any conflict of interest to higher ranking decision makers, regulations on gifts, disciplinary sanctions against bribes and bribing.
- Assurance of competition: requirement to obtain competitive bids from at least three independent suppliers.
- Required documentation: requirement to document all steps of the purchasing process, to keep complete files for a given number of years, and to substantiate how a purchasing manager selects one particular supplier over a number of competing firms.
- Conformance to corporate policies: these policies vary from company to company and from industry to industry. Typical elements cover areas such as the role of quality, service, delivery reliability versus price, or regulations covering relationships with associated companies and inter-company business.
- Option for strategic partnerships: depending on the nature of the product, many organizations will grant a restricted number of suppliers a special status – the status of strategic partner. This usually entails an evolution of a transactional relationship to a consultative and even collaborative relationship (see: DeVincentis & Rackham, 1998), which leads to sharing of personnel, know how, competencies, and other assets to jointly develop and produce new products or services.

Industrial marketing thus has the following exclusive traits. First, a distinct customer basis (producers, resellers, governments, and other nonprofit institutions) – which usually is either profit or budget constrained; secondly, the presence of a buying center with differing needs of its members. Thirdly, the presence of purchasing norms and regulations which sellers must comply with. These three factors lead quite naturally to a final distinctive feature: Fourthly, customers in industrial markets are usually more knowledgeable about their products than customers in consumer good markets (Barback, 1979; Forman & Lancioni, 2002).

Keeping these distinctive features in mind is useful. The presence of these features – and not the length of the purchasing cycle, or the average size of transactions, or the role of brands and not a sometimes hypothesized lower price sensitivity of industrial buyers (as in: Forman & Lancioni,

2002) – influence the particular organizational contexts where industrial suppliers can deliver and add value. Value creation, delivery, and communication in industrial markets take places in a context characterized by the presence of these four distinctive features.

2. CUSTOMER VALUE IN BUSINESS MARKETS – A STOCK-TAKE OF CURRENT RESEARCH

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. (Anderson & Narus, 1998)

Recent times witness a surge of interest in the concept and application of customer value, especially in understanding the definition and measurement of customer value in industrial settings (see, for example, Anderson, Thomson, & Wynstra, 2000; Flint, Woodruff, & Gardial, 2002; Homburg, Küster, Beutin, & Menon, 2005; Lindgreen & Wynstra, 2005; Ulaga, 2003; Ulaga & Eggert, 2006).

Marketing scholars (Anderson & Narus, 1998; Ulaga & Eggert, 2006) as well as researchers in strategic management (Lepak, Smith, & Taylor, 2007) recognize, however, that this field is still an open field, where the concept of value itself is ill-defined, where antecedents and consequences of value creation are not well understood and where predicative models are still scarce. Lepak et al. (2007, p. 180): "... while one would be hard pressed to find a management scholar who would disagree that value creation is important, one also would find it equally difficult to find agreement among such scholars regarding (1) what value creation is, (2) the process by which value is created, and (3) the mechanisms that allow the creator of value to capture the value." Disagreements of this sort are not untypical for a research field which still is relatively young.

The interest in the topics of value and value creation is explainable by the recognition that providing value to customers is a key factor to win customer loyalty and to increase the firm's overall retention rates (Webster, 1994). Empirically, Chang and Wildt (1994) test the relationships between quality, value, and loyalty and report a positive link between value and loyalty, proposing that value mediates the link between quality and loyalty (Chang & Wildt, 1994). Kumar and Grisaffe (2004) examine whether buyer perceptions of quality and value influence behavioral intentions, such as

loyalty, in business markets. In extensive empirical tests they report a positive, albeit indirect effect of value on loyalty.

Across a variety of industries, an increase of 5% in retention rates leads to an increase in customer profitability of 25 to 85% (Reichheld & Sasser, 1990). Reichheld and Sasser base their claims of the benefits of increasing retention rates on an analysis of both consumer good industries as well as industrial businesses. Reichheld concludes that "... the only way a business can retain customer and employee loyalty is by delivering superior value" (Reichheld, 1996, p. 30).

Industrial marketing practice makes heavy reference to the concept of customer value, sometimes without precise definition or quantification. HP, for example, states that one of its key objectives is to "continually improve the value of the products and services offered to customers." Similarly, Procter and Gamble's statement of purpose lists value as one key element: "We will provide products of superior quality and value that improve the lives of the world's consumers."

However, while many companies have capabilities in place to design and launch superior products, most of them have severe difficulties in quantifying the value of these products to actual or potential customers. Creating customer value by innovative products and services is at least as important as quantifying and communicating the value of these products to customers through pricing and marketing activities.

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 (i.e., the price) – in the customer value function. Table 1 provides an overview about ways to conceptualize value to the customer from a buyer's perspective.

On the benefit component: some researchers confine benefits strictly to quality (e.g., Sivakumar & Raj, 1997), whilst others take a much broader view (e.g., Anderson & Narus, 1998). In an exploratory study investigating the relationship between price, quality, and value Zeithaml (1988) proposes four definitions of value: value is low price; value is whatever I want in a product; value is the quality I get for the price I pay; finally, value is what I get for what I give. According to Zeithaml, intrinsic product attributes not strictly linked to product quality (e.g., certain colors of soft drinks) can well be benefits and thus components of value. Furthermore, even extrinsic product attributes, such as convenience or even higher-level abstractions

Table 1. Alternative Conceptualizations of the Construct Customer Value from a Buyer Perspective (Customer Value From a Buyer Perspective).

	Acquisition Costs	
	Included	Excluded
Customer value		
Broad (e.g. also non financial aspects)	Zeithaml (1988); Anderson and Narus (1998); Ulaga and Chacour (2001); Golfetto and Gibbert (2006);	Nagle and Hogan (2006); Hinterhuber (2004); Nagle and Holden (2002)
Narrow (e.g. quality)	Sivakumar and Raj (1997)	Forbis and Mehta (1983), Golub and Henry (2000)

(such as psychological benefits perceived by consumers) are components of a consumer’s overall assessment of value.

Anderson and Narus (1998) also support this wider conceptualization of value in industrial settings. They 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 (e.g., Jackson, Niedell, & Lunsford, 1995) find that one of the issues industrial buyers face is the risk of evaluating given 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. Thus the reputation of the seller is a source of value for customers, although reputation is not strictly an economic benefit. In this context the proverbial saying, “Nobody ever got fired for purchasing IBM” is an anecdotal proof that purchasing managers attach value to the reputation of IBM since this reputation strongly reduces the risk of performance deficits. In this context a quote by the American philosopher and economist John Ruskin (1819–1900) illustrates the concept of customer risk (emphasis ours):

It is unwise to pay too much, but it is worse to pay too little. When you pay too much, you lose a little money – that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do! The common law of business prohibits paying a little and getting a lot – it can’t be done. If you deal with the lowest bidder, it is well to add something for the risks you run, and if you do that, you will have enough to pay for something better.

Golfetto and Gibbert (2006) extend this expansive view of customer value. In analyzing the supply side and taking the perspective of a supplier, Golfetto and Gibbert find that supplier competencies themselves become a source of value for industrial customers, in that customers see competencies as supplier's ability to add value not only in the short term, but especially over the long-term, where customers themselves may not even know the exact product specifications. In addition to competencies, relationships with suppliers are also a potential source of value for customers (e.g., Walter, Ritter, & Gemünden, 2001).

On the cost component: Conceptually, researchers interpret the role of costs and its impact on customer value in two different ways. According to Flint, Woodruff, and Gardial (1997), Simpson, Siguaw, and Baker (2001), Ulaga and Chacour (2001), 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 customer value is equal to the consumer surplus or the excess value retained by the consumer.

A second line of thought defines customer value in a broad way: Forbis and Mehta (1983, 2000), Golub and Henry (2000), Nagle and Holden (2002), Nagle and Hogan (2006), and Priem (2000) define value to the customer as the customer's value threshold, as the sum of the combined benefits that accrue to the customer as a result of purchasing a given offering. Nagle and Holden (2002, p. 74): "A product's economic value is the price of the customer's best alternative – reference value – plus the value of whatever differentiates the offering from the alternative – differentiation value." 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. Customer value in this sense is equal to the microeconomic concept of a customer's reservation price or the use value of goods. More precisely, the reservation price is the price at which the consumer is indifferent between buying and not buying (Moorthy, Ratchford, & Taludkar, 1997). Recent research (Wang, Venkatesh, & Chatterjee, 2007) suggests that reservation price is not a single price point, but a range of values, where the lower bound indicates the price at which the

consumer certainly buys the product, the mid point the price at which the consumer is indifferent, and the high end the price at which the consumer would no longer buy the product (Wang et al., 2007). To narrow the range down to the price at which the consumer is indifferent, which, empirically, is close to the average value between the extreme ends (Wang et al. 2007).

Customer value here is thus equal to the maximum amount a customer would pay to obtain a given product, i.e. the price that would leave the customer indifferent between the purchase and foregoing the purchase. Although in this conceptualization of value the focus is on benefits, trade-offs still play a role: The differentiation value, as the net difference between the positive and negative differentiation values, is able to incorporate also customers' negative utilities (e.g., risks, switching costs, negative value created) – other than price. This conceptualization of customer value considers two out of the three relationship costs identified by Cannon and Homburg (2001), namely acquisition and operation costs, while treating the third component – direct product costs or actual price paid – as a separate construct, independent from customer value. The next paragraph below elaborates on this point.

The difficulty of the former approach of 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. As the objective of this paper is the conceptual exploration of value creation, delivery and pricing strategies, a definition of value is required which is independent from price. Regarding the benefit side of customer value, the author follows the current line of thinking (e.g., Anderson & Narus, 1998; Zeithaml, 1988) and takes a broad view.

3. CUSTOMER VALUE IN BUSINESS MARKETS – A PROPOSED MODEL

Specifically, this paper expands on two topics concerning the construct of customer value in business markets. First, properties of customer value and, secondly, dimensions of value. Regarding its properties, Ulaga (2003, p. 678) provides a summary of the current state of the art: The construct of customer value is: (1) a subjective concept, (2) a trade-off between benefits and sacrifices, (3) multidimensional, since benefits and sacrifices can be “multifaceted”; (4) value perceptions are relative to competition. Ulaga and

Chacour (2001, p. 530) note that value is relative to customer segments and specific use situations.

The concept of value in business market has one additional, fundamental trait which these characterizations do not capture. Value in business markets is future-oriented (see also Hogan, 2001; Jackson, 1985). Value in business markets is necessarily and unconditionally a future-oriented construct: Two parties exchange resources (e.g., money, goods, services, rights, or intellectual property) in the expectation of certain future benefits resulting from consuming these resources. Being a future-oriented concept, the concept of value in business markets thus necessarily and unconditionally shares the properties of a probabilistic utility function: outcomes have a certain expected value, a distribution around an expected value, a skewness, and they are, above all, uncertain. This uncertainty is due to the inherent uncertainty of the future, and possible opportunism on the part of the supplier compounds uncertainty (Hogan, 2001), adverse selection, and the circumstance that value in business relationships is jointly built and may thus be substantially bigger than initially assessed by mutual will and design of both the customer and the supplier. This trait of uncertainty and future orientation could lead to the representation of customer value as a range of expected values, rather than representing customer value as a single (certain) number.

Taking Ulaga's (2003) and Ulaga and Chacour's (2001) summaries as a basis and adding the element of uncertainty, the present paper thus summarize the characteristics of value in business markets as follows: value is (1) a subjective concept, value is (2) a trade-off between benefits and sacrifices, value is (3) multidimensional, value is (4) defined relative to competitors, value is (5) segment specific, and value is (6) future-oriented.

On the dimensions of customer value in business markets Ulaga and Eggert (2006, p. 120) reiterate that "research on customer value in business markets is still in an early stage"; this paper sees shares this view and sees this as incentive to further advance current theory.

In a qualitative study with ten purchasing managers of US-based industrial companies Ulaga (2003) and Ulaga and Eggert (2006) identify six dimensions along which suppliers create benefits and three dimensions along which suppliers reduce costs for their customers.

The six benefit dimensions include: (1) product quality, (2) delivery performance, (3) service support, (4) personal interaction, (5) supplier know how, and (6) time to market. Costs are subdivided in to (1) direct costs, (2) acquisition costs, and (3) operation costs (as in: Cannon & Homburg, 2001).

The six benefit and three cost components provide a useful, theoretically rigorous conceptualization of value in business markets. From the standpoint of the supplier, this framework allows to assess value delivered along the nine dimensions. From the standpoint of the customer, the framework allows to compare value delivered by a set of alternative suppliers.

The present paper reports a test of this framework in workshops conducted with 35 marketing managers, general managers, and sales managers working in four different industrial businesses: the chemical industry, food/food processing industry, energy delivery, and mechanical engineering in Germany, Austria, and China. The framework is useful but not exhaustive: the framework does not capture the full variety of possibilities for suppliers to add customer value.

In particular, discussions with executives participating in these workshops spur further efforts to investigate the question whether additional possibilities for suppliers to add customer value exist. In addition, the author undertakes an exhaustive literature survey to explore sources of customer value, both in consumer goods as well as industrial businesses. In a subsequent round of discussions, practicing executives comment on these findings.

One construct stands out: the construct “easy to do business with.” Bolton and Drew (1992) examine the impact of this construct on customer value. They refer to this construct as the customer’s overall assessment of its supplier’s policies and practices on whether these policies and practices make the service encounter easy and pleasant. Bolton and Drew (1992) find that this construct has an important impact on customer perceived value and is as important as quality in predicting value. More recently, Hammer (2001, p. 16), one father of the reengineering movement, presents “a set of nine emerging business concepts that underlie how the best companies around are mastering today’s turbulent environment.” One of these concepts is “easy to do business with” or “ETBW.” Hammer (2001) argues that ETBW will become one of the main competitive features distinguishing leaders from laggards: “ETBW isn’t an option. It is a requisite for survival” (Hammer, 2001, p. 17).

In extensive empirical tests by telephone interviews with more than 1,000 industrial customers Kumar and Grisaffe (2004) find the impact of the construct “easy to do business with” (or “customer focus” in their wording) to have the overall highest impact on both perceived quality and customer value in B2B purchasing contexts. They conclude: “This can explain why it is quite common to see a firm whose quality and prices are comparable

(or even slightly lower priced) losing out to competitors perceived as being easy to do business with” (Kumar & Grisaffe, 2004, p. 65).

In addition to order handling procedures, the construct “easy to do business with” also captures complaint-handling procedures. In an empirical survey involving more than 2,000 respondents in industrial companies Homburg and Rudolph (2001) find that satisfaction with complaint-handling procedures has a strong impact on the overall satisfaction of industrial customers which exceeds the impact of the satisfaction with product related items. The construct “easy to do business with” (i.e., order and complaint-handling procedures) merits to be treated as a separate source of customer value in business relationships.

Discussions with participating managers lead to the exploration of the construct self-enhancement, the idea that suppliers can confer to their customers intangible benefits such as prestige, social status, or other aspiration benefits. In consumer goods industries this concept is, in contrast to industrial industries, already well established: BBDO, a leading advertising agency, uses the terms “identity-building brands” and “mythological brands” to refer to a product’s ability to allow customers to express themselves via the brand and to provide social orientation (BBDO, 2001, p. 18).

Identity-building brands contribute to define the consumer’s perceptions and self-awareness. This “identity is the product of interplay between producer and consumer to create a suitable brand environment. Interactive communication provides the framework for this, a process which necessitates active involvement on the part of the consumer. The brand is integrated into the consumer’s personality (self share), i.e. the brand exhibits an overlap with the consumer’s own self-image... At this level of brand leadership, consumers define themselves via the brand (and the brand via its loyal customers), relying on it for self-expression and identity formation” (BBDO, 2001, p. 18). Mythological brands go one step further and assume “the function of a guide or mentor offering insight into the meaning of life.” Coca-Cola, Marlboro, Rolex, and Harley-Davidson and Ferrari are examples of identity-building and mythological brands, respectively (BBDO, 2001, p. 19).

Purchase and consumption in industrial contexts are less intertwined with the customer’s personality and individual values than in consumer goods industries. However, in industrial businesses also suppliers have the opportunity to provide intangible benefits to customers such as prestige, social status, or other aspiration benefits. Ward, Light, and Goldstine (1999, p. 85) state, “It is true that most of our knowledge about brand strategies

come from the accumulated experience of consumer-packaged-goods-companies like Procter and Gamble, Nabisco, and Nestle – and a wealth of enduring and highly profitable brands. But just because a concept evolved in consumer good markets is no reason to reject it in business-to-business markets.” Ward et al. (1999) document which psychological and emotional benefits brands such as Intel, IBM, EMC, and Microsoft create in high-tech and industrial businesses. They demonstrate that in industrial contexts also well-managed brands make industrial customers “feel better” about themselves.

Ingredient brands are a further case in point. Stainmaster, a brand by DuPont, stands for a special plastic fiber used in industrial carpets which need a strong protection against stains. DuPont originally sells Stainmaster as an ingredient brand to carpet manufacturers with the intent of allowing carpet manufacturers to display their own brand name along its ingredient brand. The intrinsic qualities and Stainmaster’s brand name are so strong that many smaller carpet manufacturers today find an investment in own brand building activities no longer worthwhile. Thus Stainmaster is frequently the only brand name displayed on industrial carpets (see logos below) (Fig. 1).

Similarly, industrial customer can perceive value to purchase products from the industry leader, rather than an also ran. Kumar and Grisaffe (2004) find a positive, albeit weak, positive relationship between buyers’ perception of supplier firms industry leadership and perceived overall value in B2B relationships.

If the relationship between the supplier and the customer allows the customer or the supplier to gain social status or prestige in a network of companies – for example by advertising its status as key supplier or key customer to other companies – then this relationship creates value for the supplier and customer which goes beyond intrinsic product attributes and refer to intangible benefits which are not completely dissimilar to the intangible benefits consumer perceive from purchasing leading brands.



Fig. 1. Ingredient Branding in Industrial Markets – the Example of DuPont.

The construct self-enhancement – which summarizes the potential of a supplier to enhance the social status, prestige, or provide aspiration benefits to its customers, especially when these customers are part of a wider network of industrial companies – merits to be treated as a separate source of customer value in business relationships.

Based on these considerations and Ulaga's (2003) typology of benefits this paper includes model that expands customer value creation in industrial markets with six dimensions: this paper proposes to collapse Ulaga's (2003) six benefit categories into four and to add two new benefit dimensions:

- product quality: compromising elements such as conformance to specifications, reliability, durability, environmental profile, safety, etc.
- delivery capabilities: delivery speed, delivery reliability, ability to deliver in small lot sizes, delivery flexibility.
- services: installation, application support, information, customization, maintenance, repair, performance guarantees, warranties, capabilities to operate plants on behalf of customers, financial services (capabilities to extend credit services, to offer leasing or buy-back option after product use).
- ease of doing business: ease of ordering, ordering costs and time, responsiveness to order-related enquiries, flexibility in accepting customer orders via alternative channels, reachability to accept customer orders, complaint-handling procedures.
- vendor: vendor know how, vendor competencies, new product development capabilities, vendor personnel, capability to offer solutions in addition to product offerings (Penttinen & Palmer, 2007).
- Self-enhancement: social status, prestige, aspiration benefits.

Graphically, a chart of the type shown below visualizes the value added by different suppliers. This chart allows comparing the abilities to add value of different suppliers; this way of graphically representing customer value furthermore allows tracking supplier value creation over time (Fig. 2).

The author has tested this model of value creation in business markets in a series of workshops with 35 executives working in four separate industrial marketing environments. This model is better able to capture the variety of ways in which suppliers can add value to customers in business-to-business relationships. Here are comments received after presenting and further developing this model in these workshops.

This is a really useful way to look at differentiation and value-addition. It focuses the attention away from providing an ever only marginally better product to other

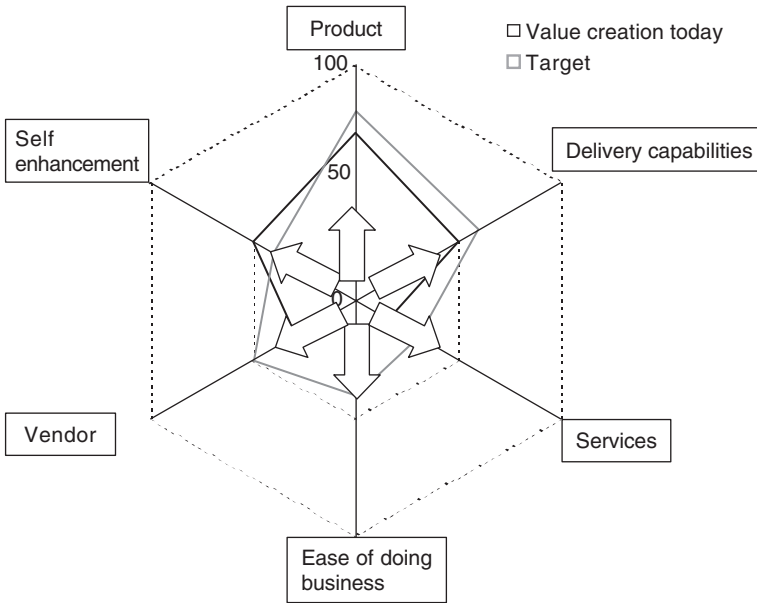


Fig. 2. Customer Value in Industrial Markets – Six Dimensions of Benefits.

dimensions which we have not systematically investigated before. (Mark, CEO, food/food processing industry)

The commodity mindset is really in our DNA and for years we have tried, fruitlessly, to overcome it. I am excited about this model! It helps your operational managers to understand how we could add value, instead of just looking how to kick out a few cents of our production costs. (Tom, CEO, energy delivery industry)

From some of our customers we hear that purchasing from competitor X satisfies some emotional or irrational needs since it confers an aura of prestige. I am glad this dimension is modelled also here – since this gives us now the opportunity to think creatively about which factors drive this purchase decision and about what we have to do to get there as well. (James, VP, engineering industry)

Building on insights from these studies the model includes the following definition of customer value in business markets. Value to the customer of a company’s product, service, relationship, competency, or intellectual property offering is equal to price of the customer’s best alternative plus the expected (positive or negative) value along the six dimensions – product, delivery capabilities, services, easy to do business, vendor, self-enhancement – along which this offering is differentiated from the alternative.

This definition references received value of customers – the value customer actually experience through specific product–customer interactions – and not customers’ desired value – the value customers want from products and services and their providers (Flint & Woodruff, 2001).

The definition proposal further satisfies key elements which are relevant for customer value measurement approaches (Ulaga & Chacour, 2001; Ulaga, 2003), namely the requirement of (1) subjectivity (customer specificity), (2) identification of benefits and sacrifices, (3) multidimensionality, (4) relativity of value to competitive standards, (5) segment/use situation specificity, and (6) future orientation.

Customer value in this definition refers to the maximum amount a customer would pay to obtain a given offering, that is, the price that leaves the customer indifferent between the purchase and foregoing the purchase (i.e., the “reservation price”). Customer value includes the full set of customer benefits and sacrifices – except the purchase price. The advantage of excluding price from the definition of customer value is that this leads to a conceptualization of customer value which is independent from a company’s pricing strategy. This approach thus allows exploring alternative value delivery and pricing strategies without affecting the conceptualization of value. In other words, in this conceptualization customer value is completely independent from price – and this independence is a distinct advantage.

4. PRICING IN BUSINESS MARKETS – A REVIEW OF THE STATE OF THE ART

Pricing receives little attention from practicing managers. Despite all laments of intensified price competition and the perceived difficulty of raising prices, empirical research by McKinsey & Company shows that less than 15% of companies do any systematic research on pricing (Clancy & Shulman, 1993).

Pricing receives little academic investigation. Not only managers, but also academics show little interest in the subject of pricing: Publications on this subject are not anywhere as numerous as publications on other classical marketing instruments such as product, promotion, and distribution. Even marketing scholars devote only little effort to pricing theory or practice: An empirical study reveals that less than 2% of all articles published in major marketing journals cover the subject of pricing (Malhorta, 1996). Solberg,

Stöttinger, and Yaprak (2006, p. 23) state that "... pricing remains an understudied dimension of the field [of marketing] in both its conceptual dimensions and its managerial practice."

Consumers show little interest in prices of goods purchased. Managers have a general tendency to believe that price is an important issue for customers. Research, however, shows that customers are frequently unaware of prices paid and that price is one of the least important purchase criteria for them.

Impact of price on profitability is high. Finally, the impact of even small increases in price on profitability by far exceeds the impact of other levers of operational management. Consider the following table (based on a sample of Fortune 500 companies): (Fig. 3).

A percent increase in average selling price increases EBIT (Earnings Before Interest and Taxes) by 22% on average – compared to an increase of 12 and 10% for a corresponding increase in turnover or reduction in costs of goods sold, respectively. Given the high impact of pricing on profitability, why does management practice devote comparatively little interest to this subject?

Managers frequently fall victim to two erroneous beliefs. First, managers assume that nowhere else conflict is as strong as in the field of pricing: the dominant assumption is that what is gained by the firm is lost by the customer and vice versa and that pricing is, in the end, a zero-sum game. Second, managers generally do not believe in their ability to significantly

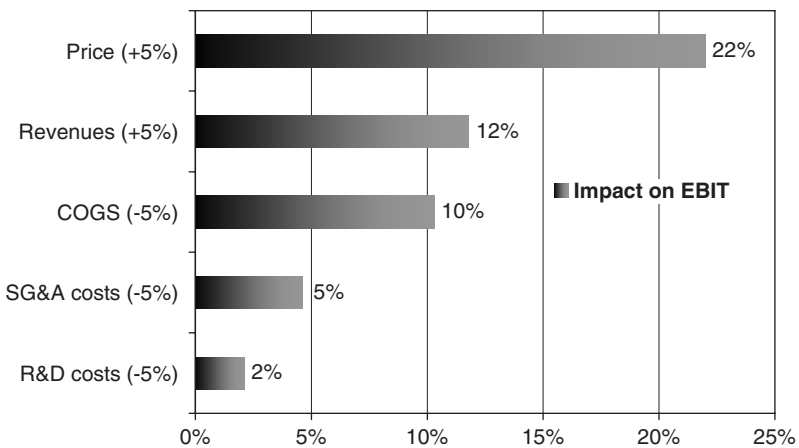


Fig. 3. Pricing and its Impact on Profitability.

influence their industry's pricing structure. A common managerial lament is the following: "In our industry, prices are mostly dictated by the market. Therefore, we focus on costs and volumes." Executives seem to prefer stripping the product of some features, cutting advertising budgets, reducing costs rather than implementing and communicating price increases.

These assumptions and their underlying logic are incorrect and harmful to a company's profitability. Managers suffer from systematic misconceptions when making pricing decisions. This paper analyzes two of the most common misconceptions; before that, the next paragraph reviews the state of the art in pricing theory and practice in industrial markets.

Three main approaches to pricing exist in industrial markets: cost-based, competition-based and customer value-based approaches (see also Shapiro & Jackson, 1978); this paper does not discuss in detail approaches such as product line pricing, price bundling, tie-ins, etc. since these approaches typically relate to the pricing of a product portfolio or of complementary products. Particular focus of this analysis is the pricing decision for individual offerings. The table gives an overview of the three main approaches to (single product) pricing and lists typical variants of each approach (Table 2).

While extant literature extensively discusses the merits of the cost-, the competition-, and the customer value-based approach to pricing, extant research remains relatively silent on the degree to which industrial marketing practice adopts each of these approaches. This paper covers this gap by providing an extensive review of literature and available data.

Table 2. An Overview of Industrial Pricing Approaches.

Cost-based pricing approaches
Cost-plus method
Target ROI/ROS (<i>return on investment, return on sales</i>) pricing
Breakeven-based pricing
Target contribution margin pricing
Competition-based pricing approaches
Penetration pricing
Price skimming
Pricing according to average market prices
Price follower behavior
Customer-based pricing approaches
Perceived-value pricing
Performance pricing
Pricing according to customer's assessed willingness to pay

So far, little is known on the adoption rates of alternative pricing approaches in industrial markets. Isolated studies exploring the adoption of different pricing approaches in industrial markets certainly exist, no single paper summarizes all available extant empirical research. In other words, no comprehensive summary exists of the adoption rates of alternative pricing approaches in industrial markets.

Such a summary has value. Such a summary will allow to state, for example to which degree the implementation of advanced pricing approaches – such as customer value-based pricing – are the exception, and thus have the potential to act as a differentiator and potential source of above average earnings, or whether, on the other hand, similar approaches are already so widely adopted that they do not even deserve to be called “advanced” approaches to pricing.

This paper provides a broad and comprehensive literature review of all main studies, presentations, and research projects covering the topic of pricing approaches in industrial markets. This summary covers pricing approaches in industrial environments in Asia, Europe, and the US; in total the results of close to two dozen surveys carried out between 1983 and 2006 are summarized, involving responses from more than 3,000 interviewees.

Several words of caution are worth stating. While current marketing literature widely accepts the categorization of the universe of pricing approaches into cost, competition, and customer value approaches (see, for example: Armstrong & Kotler, 2006; Avlonitis & Indounas, 2006; Ingenbleek, Debruyne, Frambach, & Verhallen, 2003), not all papers use this categorization in their research design. The author undertakes best efforts to go back to the original data of the research papers to reclassify the approaches into one or more of the three approaches; in cases where classification is difficult, where companies use hybrid approaches or multiproduct pricing strategies, the summary below classifies the respective approaches under a new category, “other approaches” and provides additional explanations in the section “comments.” In addition, the research design of surveys differs to the extent that survey participants name a single, dominant pricing approach or that they list a number of approaches adopted under different circumstances. In the first case, the split of pricing approaches into the four categories will add up to 100%; in the second case not – in this case a linear transformation is used to scale the totals back to 100% to make results comparable with each other.

Table 3 has two parts. The table first summarizes surveys seeking a single, dominant approach to pricing and then lists surveys allowing multiple answers. In a presentation at an industry event, Strategic Pricing Group

Table 3. Empirical Research on Industrial Pricing Approaches – a Summary.

Pricing Approaches Used in Industrial Markets – an Overview of Empirical Studies								
Cost-based pricing approach	Competition-based pricing approach	Customer-value based pricing approach	Other approaches	Type of study, sample size	Industry, region	Year	Authors	Comments
50%	38%	12%	–	Survey among product/marketing managers	Technology, US	2005	Strategic Pricing Group	Sample size not indicated
77%	16%	7%	–	Survey among <i>single answer</i> marketing managers of European vehicle insurance companies (in D, A, CH); <i>Single answers (first choice method)</i>	B2B, partly B2C; Germany, Switzerland, Austria; Sample size not indicated but “good” coverage of main insurance companies in the 3 countries	2006	Erdönme, Nützenadel, University of St. Gallen	Original survey answer (“77% usage of traditional insurance tariffs”) is classified as “cost-based” pricing approach
15%	73%	12%	–	Survey among 61 general managers in German industrial and service companies (85% B2B business); <i>single answer</i>	Industrial & service companies, Germany	2001	Büschken	12% of companies are “active” pricers where reference is made to demand and customer related factors taken into consideration

14%	85%	1%	Survey among 91 CEO's of US-based construction companies; <i>single answer</i>	US, construction (engineering)	2001	Mochtar and Arditi	
31%	35%	20%	Survey among 172 marketing executives in US-based industrial companies (SIC codes 35); <i>single answer</i>	Industrial companies US with international operations (60% of the sample are companies with sales < USD 25 mill)	2002	Forman, Lancioni	Customer value based pricing may be overestimated. "Other" refers to transfer pricing and countertrade
Surveys allowing multiple answers							
42%	29%	29%	Survey among 207 marketing managers of US-based industrial firms; <i>multiple answers</i>	Industrial companies, US	1996	Morris, Avila, and Pitt	
68%	74%	11%	Survey among 270 product/marketing managers in B2B, durable goods; <i>multiple answers</i>	Durable goods in B2B markets, US	1999	Noble, Gruca	"Others" refers to product-line pricing and complementary product pricing
51%	104%	8%	Survey among 75 general managers in Singapore; <i>multiple answers</i>	Durable B2B goods (machine tools, electronics) Singapore	1999	Chia, Noble	"Others" refers to product-line pricing and complementary product pricing

Table 3. (Continued)

Pricing Approaches Used in Industrial Markets – an Overview of Empirical Studies								
Cost-based pricing approach	Competition-based pricing approach	Customer-value based pricing approach	Other approaches	Type of study, sample size	Industry, region	Year	Authors	Comments
109%	85%	49%		Survey among 178 export marketing directors of industrial manufacturers in the UK; <i>multiple answers</i>	Industrial goods (chemicals, metals, plastics) in the UK	2000	Hart, Argouslidis and Saren	
29%	34%	37%		Survey among 77 marketing managers of Belgian electronics and engineering companies; <i>multiple answers</i>	Belgium, industrial companies	2003	Ingenbleek, Debruyne, Frambach, & Verhallen	
32	39	29	–	Survey among 160 product and marketing managers of a global industrial company; <i>multiple answers</i>	B2B process industry, worldwide	2006	Own survey	Managers are asked to distribute 100 points on approach used to determine new product pricing policies depending on importance of method used

(2005) summarize their research on pricing practices based on a poll with marketing managers of a sample of US-based technology companies: according to this survey, 50% of companies adopt a cost-driven, 38% a competition driven, and 12% a customer value-driven approach to pricing. The authors do not indicate the sample size.

Erdönmez and Nützenadel (2006) examine the pricing practices of leading Swiss, German, and Austrian vehicle insurance companies, i.e. of companies operating predominantly in industrial markets (fleet, truck insurance), but with a component of private customers. Also here the authors do not provide information on the sample size, but claim a “good” coverage of companies operating in the Swiss, German, and Austrian vehicle insurance market. They find that insurance companies operating in German speaking countries have a clear preference for traditional insurance tariffs (77% share) – an approach which this paper classifies as cost-oriented approach (since this involves an analysis of costs and risks before quoting prices). A total of 16% of companies employ competition-driven pricing and only 7% of companies base their pricing decisions on considerations of customers and customer value.

Büschken (2001) analyzes industrial pricing approaches in Germany, by polling 61 marketing executives of industrial equipment and service companies. Objective, also here, is to identify the single, dominant approach to pricing: over 70% of companies use competition-based approaches followed by cost-based approaches (15%) and, finally, customer-value based approaches (12%).

Mochtar and Arditì (2001) analyze pricing practices in engineering companies, in an environment where competitive bidding is the norm. In a survey of 91 CEOs and presidents of US-based construction companies, they find a strong prevalence of competition-based (or market-based) and mixed competition-based/cost-based pricing approaches (85%), a lower reliance on pure cost-based approaches (14%), with approaches taking into account owners (i.e. customer) needs/the company’s unique strengths to satisfy these needs lagging behind (1%).

Forman and Lancioni (2002) survey 172 marketing executives of US-based industrial manufacturers with international operations. Competition-based pricing approaches are the most widely adopted (35% of companies), followed by the cost-plus method (31%). Their survey makes no explicit reference to customer value-based pricing approaches, but the category “premium pricing” has the intent to refer to demand/customer-based pricing approaches. Twenty percent of companies adopt this approach.

Morris, Avila, and Pitt (1996) survey 207 marketing managers of US-based industrial firms. To capture the influence of various factors on pricing decisions they use 1–5 scales where higher scores indicate greater agreement with items in question. Cost-based considerations play a dominant role (average score: 2.9; yielding a relative influence of 42% after linear transformation to a 0–100% scale). However, customer-value based considerations come in second (average score: 2.30; 29% after linear transformation), with competition-based considerations not far behind (average score: 2.3, 29% influence after linear transformation). This is one of the rare surveys where agreement to certain customer-related questions such as “price reflects the amount of value a given customer receives” is higher than the agreement to cost some related questions such as, “we add a standard mark-up to the unit price.”

In a survey where multiple answers are possible, Noble and Gruca (1999) interview 120 product and marketing managers in American, B2B, durable goods industries (computers, electronic equipment, construction, vehicles, and other sectors). On average, each company uses slightly less than two approaches to pricing. Here, dominant approaches to pricing are competition-based approaches (parity, penetration, skim, pricing; price leader; low price supplier), with a full 74% of companies using this type. Sixty-eight percent of companies, in contrast, adopt a cost-driven pricing approach (cost-plus, experience curve), while 11% adopt a customer-value based pricing approach.

Noble subsequently replicates this study in an Asian context (Chia & Noble, 1999). Even more than in the US, competition-based approaches by far dominate (being employed, on average, by every company in the sample); companies in Asia use cost-based pricing approaches, somewhat surprisingly, to a lesser extent than companies in the US: Finally, the diffusion of customer-value based approaches is limited to 8% of companies.

Tsokas, Hart, Argouslidis, and Saren. (2000) survey 178 export marketing directors of industrial manufacturers in three sectors (chemicals, metals, plastics) in the UK to understand export pricing practices. Among other insights, the authors obtain information on pricing methods used in export pricing decisions. Tsokas et al. find that export pricing approaches are still driven primarily by cost-based approaches (highest relative importance on a 1–5 scale), followed by competition-based pricing approaches, in turn followed by perceived value-based pricing.

Ingenbleek et al. (2003) survey 77 industrial marketing managers in the Belgian electronics and engineering industry. They use a 1–10 scale to capture the influence of costs, competition, and customer value on new

product pricing decisions. The influence of customer value-related items (e.g., perceived competitive advantage of the product/service; perceived customer value; relationship between product advantage and price) is higher (average rating: 7.7) than the influence of both competition-related factors (average rating: 7.2) and cost-related items (average rating: 6.21). This is the only survey where customer value-related factors have an overall higher impact on pricing decisions than both cost and competition-related factors: The industry setting may explain in part this rather unusual result. The electronic and engineering industries are contexts where customer perceived value pricing strategies are easier to implement than in other industries, since value to the customer can be quantified by linking new product prices to increases in profit/turnover or achieved cost reductions (Anderson & Narus, 1999).

Avlonitis and Indounas (2006) poll 170 industrial service companies (insurance, banking, airlines, banks) in Greece. The survey, allowing multiple answers, shows that cost-based pricing approaches clearly dominate, followed closely by competition-driven approaches. A full 58% of companies use the cost-plus method, one variant of cost-based pricing approaches, 53% of companies set pricing according to market average prices, a variant of competition-based pricing. Clearly lagging behind are approaches where customer value is taken into account.

Finally, this paper reports the results of an own empirical research on industrial pricing practices. In conjunction with a joint research project with a global industrial company in the process industry the author surveys 160 product managers, marketing executives, account managers, heads of sales, business unit heads, and general managers. Objective of these face-to-face interviews is to understand antecedents and consequences of pricing decisions for the company's best selling products (i.e. identification of factors impacting the process of setting prices as well as analysis of the consequences of different pricing decisions). In semi-structured interviews respondents report on information used to decide on new product prices, on the frequency and methodology to decide on price adjustments for existing products, on internal and external stakeholders yielding an influence on the pricing process, on discount policies, etc. Survey participants are also asked to explain in detail the factors leading to specific new product prices: they are asked to allocate 100 points to costs, competitors, and customers according to the relative importance of each of these factors for new product pricing decisions. The results are as follows: Close to 40% of points are allocated to competition-driven pricing policies, 32% to cost-driven pricing and, lastly, 29% to customer value-driven pricing.

For the sake of completeness the summaries of four other published surveys on pricing practices appear in this section. The author does not integrate the results of these surveys in the summary statistics below, since the data are either incomplete, qualitative or unreliable due to small sample size. Solberg et al. (2006) classify export pricing decisions in Austria, Norway, and the US based on a taxonomy of globality and internationalization (see Solberg, 1997); since this taxonomy does not allow to infer the degree of cost-, competitor-, or customer value-orientation, the results of this survey are not usable for the summary discussion here. In any event, the sample size in this survey is unusually small ($n = 24$ firms).

Govindarajan and Anthony (1983) examine which costs data influence pricing decisions. Since the focus of this paper is on costs, no inference on competitor-oriented or customer value-oriented pricing strategies is possible. They obtain answers from 501 of Fortune's 1000 companies and find that a full 83% use full costs and the remaining 17% use variable costs as their relevant cost parameter for pricing decisions.

Mills (1988) reports the result of a survey on pricing practices among UK-based industrial goods and service companies. He finds the vast majority (>70%) to use cost-based pricing approaches, with an unspecified percentage of companies taking "factors other than cost into account" when making pricing decisions with reference to the general level of competitors' pricing being the most important consideration" (Mills, 1988, p. 39). Mills mentions that again an unspecified number of companies take the anticipated effect of prices on consumer demand into account before pricing decisions. Also here costs still play the dominant role for pricing purposes, and among cost-based pricing approaches the full cost method is the dominant one.

Finally, Cunningham and Hornby (1993) examine pricing practices of small companies in the UK. Their focus are exclusively small companies, and also their sample size is small – consisting of just 12 companies, mostly industrial manufacturing and services companies based in the UK. The predominant approach to pricing is cost-based pricing (75%), with 3 companies (25%) using customer value-driven pricing approaches. Not a single company in this survey uses a competition-driven pricing approach. Due to the small sample size this survey is excluded from the summary analysis of industrial pricing practices below.

In conclusion, competition-based pricing approaches still play the dominant role in industrial pricing practice. Their average influence is 44% (i.e., 44% is the average adoption rate in single answer surveys and, in multiple answer surveys, the average influence of competition-based considerations on product pricing).

Cost, based pricing approaches, despite being universally acknowledged as overall weakest approach to set prices (Nagle & Holden, 2002) trail competition-based approaches closely with an average influence across all surveys of 37% (i.e., 37% is their average adoption rate in single answer surveys and, in multiple answer surveys, the average influence of cost-based considerations on product pricing). Perhaps the competitive intensity of recent times, the hypercompetitive environment most firms operate in (D'Aveni, 2006) is forcing companies to shift attention away from the purchasers of their goods and services towards competitors vigorously battling for market share. This may even be beneficial: recent empirical research finds a positive correlation between a cost-oriented pricing approach and new product success under conditions of intense competitive rivalry (Ingenbleek et al., 2003).

Customer value-oriented approaches still play a relatively minor role, with an average influence of 17% across all surveys (i.e., 17% is their average adoption rate in single answer surveys and, in multiple answer surveys, the average influence of customer value-based considerations on product pricing). The influence of other pricing approaches (e.g., product line pricing, price bundling) is 3%.

The low adoption of customer value-based pricing approaches (17%) is surprising since marketing scholars as well as marketing practitioners nearly universally regard customer-value based approaches as superior approaches to set new product prices or to adjust prices for existing products (e.g., Anderson & Narus, 1998; Anderson, Narus, & Rossum, 2006; Cressman, 1999; Shapiro, 1987; Simon, Butscher, & Sebastian, 2003).

Fig. 4 summarizes the relative influence of customer value-based pricing approaches over time (i.e. publication of the respective survey).

Fig. 5 summarizes the relative importance of the three approaches to industrial pricing as a summary of all published surveys to date.

5. THE VALUE OF VALUE-BASED PRICING

Marketing scholars generally agree that value-based pricing is a superior approach to set prices. Monroe (2002, p. 24): "... the profit potential for having a value-oriented pricing strategy that works is far greater than with any other pricing approach" (Monroe, 2002). Cannon and Morgan (1990) recommend perceived value pricing if profit maximization is the objective: "Perceived value pricing enables a company to select an optimal price/volume combination" (Cannon & Morgan, 1990, p. 25). Similarly,

PERCENTAGE OF COMPANIES SETTING PRICES PRIMARILY IN FUNCTION OF CUSTOMER VALUE

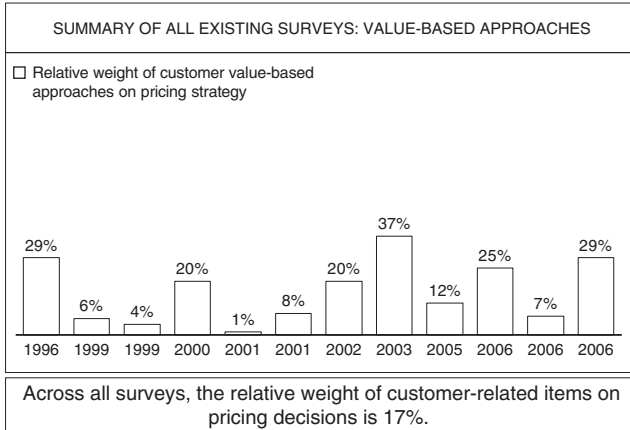


Fig. 4. Influence of Customer Value-Related Elements on Pricing Decisions Over Time.

RELATIVE IMPORTANCE OF DIFFERENT PRICING APPROACHES IN SETTING NEW PRODUCT PRICES

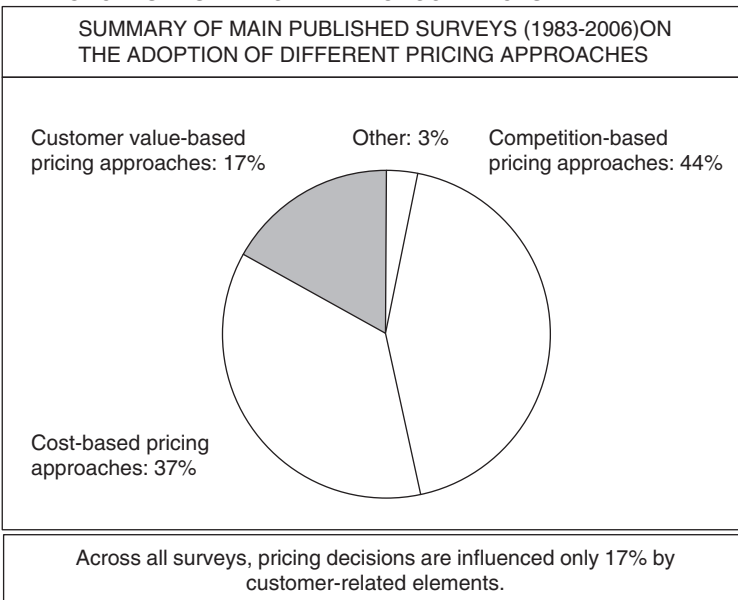


Fig. 5. Adoption of Different Pricing Approaches in Industrial Markets – a Summary of Published Research.

Docters, Roepel, Sun, & Tanny (2004) refer to value-based pricing as “one of the best pricing methods” (Docters et al., 2004, p. 16).

On the other hand, as early as in the 1950s Backman (1953, p. 168) notes that “the graveyard of business is filled with the skeletons of companies that attempted to base their prices solely on costs”. More recent, Myers, Cavusgil, and Diamantopoulos (2002) assert that cost-based pricing approaches lead to substandard profitability. Simon et al. (2003) also state that cost-based pricing approaches lead to lower than average profitability.

Despite these claims, extant research provides little, if not to say no, empirical evidence to substantiate the claim that value-based pricing increases or that cost-based pricing decreases firm profitability. Marketing scholars recognize the lack of empirical evidence. Noble and Gruca (1999, p. 457) state that “research on successful pricing process should be a major priority for future research”. Also other researchers (see: Cressman, 1999; Ingenbleek et al., 2003) lament a lack of understanding on the link between pricing practices adopted and firm success.

Ingenbleek et al. (2003) conduct the first and only study to date to examine the relationship between pricing practices and new product success. This study has largely gone unnoticed in extant marketing literature so far: not a single marketing textbook in which this paper is cited exists. Also the ISI web of science (Social Citation Index) does not report a single citation of this paper (*website accessed: 1 August 2007*).

A summary of this study here adds value to, first of all, provide an empirical basis to any claims – which so far rely more on speculation than on data – about performance implications of alternative pricing approaches. And, second, to spur further research in this area where little is known, in spite of the fact that the number of papers pretending to know is large.

Ingenbleek et al. (2003) survey 77 marketing managers in two B2B industries (electronics and engineering industry) in Belgium. Objective of their research is to explore the link between pricing approach and new product success. Multi-item measures operationalize pricing practices: Participants indicate their agreement to questions capturing the influence of cost-, competition-, and customer-related factors on a 1–10 scale. Participants self report on new product success: they are asked to indicate, again on a 1–10 scale, whether new product performance is in line with the objectives originally set out at product launch.

Customer value-based pricing approaches relate positively to new product success, while no correlation exists between new product success and the adoption of cost-based and competition-based pricing approaches. (Fig. 6)

PRICING APPROACH AND NEW PRODUCT SUCCESS:
WHAT DO WE KNOW?

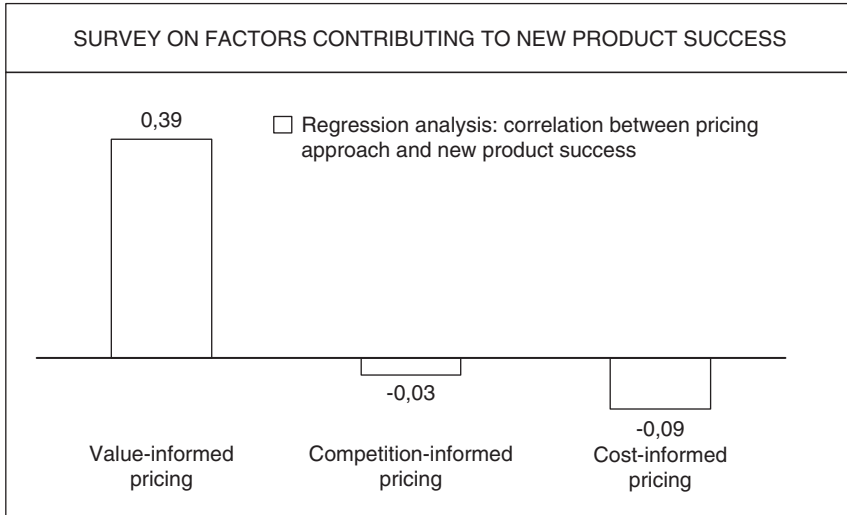


Fig. 6. The Link between Pricing Approach and New Product Success.
Source: Ingenbleek, Successful New Product Pricing Practices: A Contingency Approach, *Marketing Letters*, December 2003.

The authors further find that pricing practices are contingent to relative product advantage and competitive intensity: Under conditions of intense competition, cost-based pricing approaches are “best practice”; they are “bad practice” under conditions of low competitive intensity.

Competition-informed pricing is “bad practice” if relative product advantage is high. Customer value-based pricing is “best practice” when relative product advantage is high. Unlike for cost- or competition-based pricing approaches, the authors do not find circumstances when customer value-based pricing is “bad practice”: its influence on new product success is at worst neutral. Ingenbleek et al. (2003, p. 301) conclude that customer value-based pricing approaches are the overall best approaches to new product pricing decisions.

Empirical work is necessary in the area of examining the consequences of pricing approaches on company and product performance. The research by Ingenbleek et al. (2003), although a pioneering work, has limitations: A small sample size, the fact that new product success is measured on a self-reported basis and the lack of profitability measures warrant further research in this area. Of particular interest are performance

implications – measured with objective criteria such as profitability, revenue growth or other objectively verifiable indicators – of alternative pricing approaches.

6. EXPLORING COMMON MYTHS ABOUT PRICING IN INDUSTRIAL MARKETS

6.1. A Myth: Premium Prices and High Market Share are Incompatible

Implicitly most managers take to heart one of marketing's first, apparently obvious, lessons: The traditional advice of marketing literature is to set prices low at the introduction stage of new products if the objective is to gain market share rapidly (Lamb, Hair, & McDaniel, 2000): Lamb et al. (2000) recommend penetration pricing – that is, low prices – if the objective is to build market share, whereas they recommend price skimming – that is, high prices – if the objective is to increase profits.

Marketing executives are reluctant to price new products significantly above current price levels, fearing that this puts them at a competitive disadvantage in the quest for market leadership.

The implicit assumption that high prices and high market share are incompatible is incorrect. In a variety of industries, from software to pharmaceuticals, specialty chemicals to cars, aircraft to apparel, premium price brands frequently are also market share leaders. Let us analyze the US pharmaceutical industry for this purpose.

The pharmaceutical industry is an interesting research setting, where a high drive for innovation and a high pressure on cost containment coexist. Pharmaceutical marketing is – in its essence – industrial marketing: Managed care – a HMO (Health Maintenance Organization), a preferred provider organization, or a point-of-service plan – now covers almost 80% of employed Americans. About 90% of HMOs now use formularies (PhRMA, 2001). A formulary is a list of prescription drugs approved for insurance coverage. Since managed care organizations select drugs principally on the bases of therapeutic value, side effects, and cost, pharmaceutical marketing consists to a large degree of convincing these organizations to put a specific drug on formularies, i.e. on the list of drugs eligible for reimbursement. Doctors typically chose a specific drug only among a list of drugs on this formulary.

The US pharmaceutical industry consists of 30 market segments, such as antibiotics, diabetes drugs, cholesterol-lowering drugs (NIHCM, 2001).

PRICE AND MARKET SHARE

MARKET LEADERSHIP AND PREMIUM PRICES IN THE US PHARMACEUTICAL INDUSTRY

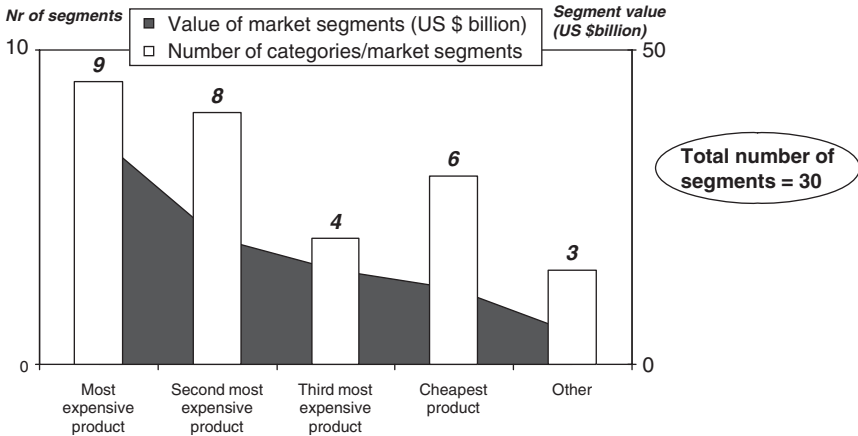


Fig. 7. High Price and Large Market Share – not as Incompatible as Commonly Believed. Source: NIHCM Foundation (2001).

This paper analyzes the absolute price level and market share of all main drugs in each of these 30 market segments. Contrary to expectations, in 9 segments (30% of segments) the most expensive drug is at the same time also the drug with the largest market share. The second most expensive product is market share leader in eight segments (27% of segments). By contrast, the cheapest product has the largest market share in six segments (20% of segments).

Fig. 7 illustrates the relationship between absolute price and market share for a number of the 30 market segments analyzed: in practice high prices and high market share coexist.

Traditionally, most managers hesitate to associate market share leadership with a high-price strategy; the belief is that a premium price strategy is best suited for small, niche markets.

High market share and high prices can be achieved if prices truly reflect high customer value. The next section further discusses this point. Before doing so, one key question warrants further attention: Are customers really as price sensitive as most managers believe? This question is particularly relevant given that in empirical surveys marketing managers frequently mention intensified price competition as the main challenge – ahead of issues such as product differentiation or new product launches (Simon, 1999).

6.2. Are Customers Really as Price Sensitive as Commonly Believed?

A second misconception concerns the price knowledge and sensitivity of customers. Numerous studies test these factors. This section summarizes the most salient results.

Avila, Dodds, Chapman, Mann, and Wahlers (1993) investigate the importance of price for industrial goods in a survey involving purchasing and sales managers of two hundred companies. They find that purchasing managers rank product attributes as the most important criteria, then service attributes, and finally, price as the least important criterion. Sales managers, by contrast, rank price much higher in what they perceive to be the most important purchasing criteria of their customers, indicating how weak their understanding of the critical purchasing criteria of their customers is?

Sudarshan (1998) surveys 151 purchasing decision makers (purchasing managers, technicians, R&D personnel) of industrial companies on the criteria used in selecting vendors. The importance of different criteria is captured on a scale from 1–5 (maximum). The three most important factors are product consistency over time (mean importance: 4.6), delivery reliability (4.1), and price (3.7). Also here, price is thus only one among other, more important factors, in influencing which vendors will be selected.

In a quantitative survey involving 400 US-based purchasing managers Ulaga and Eggert (2006) examine which factors account for customers' decisions to award key account supplier status to one given supplier over a set of alternative candidates. They report that costs have the weakest potential to differentiate suppliers from each other (explained variance: 20%); conversely, they find that benefits created have a much larger impact on customer decisions to select a potential supplier as key supplier (explained variance: approximately 80%). This can be seen as further support for the hypothesis that customers in industrial markets are far more sensitive to benefits than they are to costs.

The consumer goods industry is rich in data on the price awareness of customers: given that industrial companies frequently have companies in the consumer goods industry as their direct customers, the price sensitivity in consumer goods markets is at least of indirect relevance also for industrial companies. Dickson and Sawyer (1990) examine the extent to which US supermarket shoppers are aware of prices paid. They find that 50% of shoppers can not correctly name the price of the item they have just placed in their shopping cart and that more than half of the shoppers who purchase an item on sale are unaware that the price is reduced. Vanhuele and Dreze (2002) confirm the low price awareness of end-customers in a European

context by surveying French customers. Evanschitzky, Kenning, and Vogel (2004) also find low price awareness in Europe by specifically examining customers' long-term price memories.

Hoch, Dreze, and Purk (1994) examine the effects of category-wide price increases in a chain of 86 supermarkets involving 5,000 products: a price increase of 10% leads to a volume decrease of less than 3%, suggesting that customers show little sensitivity to price increases.

The literature on the behavioral and psychological aspects of pricing is rich in data providing further evidence that customers do not react to prices in fully rational ways (e.g., Ofir & Winer, 2002).

In conclusion, managers as price setters have a general tendency to overestimate the importance of price for actual or potential customers.

7. VALUE DELIVERY AND VALUE-BASED PRICING – A FRAMEWORK

The following, five-step framework operationalizes value delivery and value-based pricing strategies in industrial markets: Starting point is a clear definition and communication of goals. Next is the creation and communication of value along the six dimensions of benefits. Step three involves communicating value to customers. The next step deals with the four critical elements of all strategic decisions – that is, the company perspective, the customer perspective, the competitive perspective, and the channel perspective. One specific tool addresses each of the four perspectives to capture the implications for value delivery and pricing purposes. The last step deals with implementation of value delivery and pricing strategies.

Shiple and Jobber (2001) suggest viewing pricing as a continuous process: changes in environmental conditions, in marketing strategy or in customer needs can require changing selected elements of the process, which in turn can lead to a modification of the prices or value delivery options adopted (Fig. 8).

7.1. Clearly Define and Communicate Goals

The first step is a clear definition of goals. Company may pursue a variety of, sometimes mutually exclusive, goals, such as market share, market share growth, revenue growth, profitability growth, growth in absolute profits, share price growth, growth relative to competitors, dividend growth, etc.

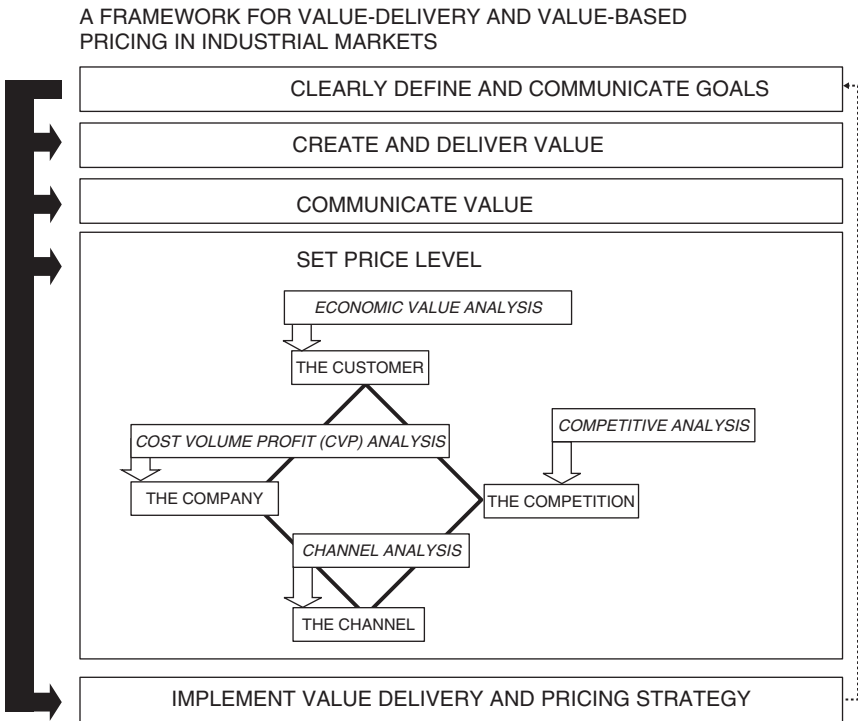


Fig. 8. Framework for Value Delivery and Value-Based Pricing in Industrial Markets.

These goals are naturally the result of the company’s business or corporate level strategy.

First of all, good and less good goals exist: In the context of this research project the author undertakes a study to examine the relationship between market share and profitability (operating profit margin) in a variety of industry contexts. For a large number of industries (air transport, chemicals, automotive parts, automotive) the correlation is not significantly different from zero, in a few other settings (pharmaceuticals) the correlation is positive. Researchers generally agree that market share and profitability are unrelated (Jackson, 2007). Buzzell, one of the cofounders of PIMS – probably once the most vocal supporter of a positive link between market share and profitability – declares the program to be effectively “out of business” in North America (Buzzell, 2004, p. 478). Even more, Anterasian, Graham, and Money (1996, p. 74) regard market share-oriented goals as

inferior, even “misleading” goals for long-term profitability. Armstrong and Collopy (1996) conclude their research about the impact of competition-oriented goals on profitability and survival with the following recommendations. “Our results suggest that the use of competitor-oriented objectives is detrimental to profitability. We recommend the following: Do not use market share as an objective. Avoid using sports and military analogies, because they foster a competitor orientation. If you use benchmarking, ensure that it does not influence objective setting. Do not use management science techniques that are oriented to maximizing market share, such as portfolio planning matrices and the experience curve” (Armstrong & Collopy, 1996, p. 197).

Choosing goals that enhance the chances of long-term value creation, such as goals linked to long term growth in absolute profitability, is thus an important step.

Secondly, internal consistency is vital to ensure implementation of targeted pricing strategies. Lancioni, Schau, and Smith (2005) document the difficulties pricing managers face in implementing their strategies vis-à-vis different internal departments. According to our own experience, this is to a large extent due to different goals which these department pursue. Sales managers are commonly motivated by and rewarded for achieving market share goals, while their colleagues in marketing frequently have goals linked to absolute profitability or long-term (budgeted) sales growth, whereas their colleagues in finance in turn have goals linked to measures of relative profitability (such as EBIT, EBITDA). In such an environment, pricing strategies face resistance, since whatever goal a given department may follow at any moment in time, this department will do so by at least in part causing difficulties to other departments. To summarize: choosing “good” goals as well as ensuring internal consistency are vital requirements for successful implementation of value creation and value delivery strategies in industrial environments.

7.2. Create and Deliver Value

The framework (see Fig. 2) for value delivery is useful for examining additional ways to delivery value to customers. Specifically the framework provides a coherent and comprehensive tool to examine all options for value creation.

Thus, in this context the product dimension can be analyzed, as well as delivery capabilities, services, ease of doing business, own capabilities, and, finally, options to provide other intangible benefits to buyers (self-enhancement).

7.3. Communicate Value

Value to the customer has a hard and a soft component: Value to the customer is the sum of the price of a buyer's best alternative – i.e. a specifically identifiable product, service or process that the customer knows well and for which a clearly identifiable market price exists – plus the differentiation value – i.e. a subjective source of value of the product's differentiating attributes to the customer. In brief, economic value is not an inherent component of a product, but rather a trait, which executives can and should manage. The following considerations apply.

7.3.1. Increase the Value of the Product's Perceived Substitutes

Substitution Effect. Buyers are more price sensitive the higher the product's price relative to the prices of the buyers' perceived substitutes (Nagle & Holden, 2002). Perception varies widely among customers and across purchase situations. In addition, creative marketing can influence customer perceptions.

Effective marketing can position an expensive product as good value by selecting a high reference as comparison. Take the example of Loctite, an industrial adhesive, which occupies the position of a substitute to nuts and bolts. Reference price expectations have an impact also at the point of sale: In stores where generic (no-name versions of off-patent products) and branded products are physically close to each other for easy comparison, sales of low-priced products are usually much greater.

7.3.2. Emphasize the Product's Unique Value

Unique Value Effect. Buyers are less sensitive to a product's price the more they value any unique attributes that differentiate the product from competing products (Nagle & Holden, 2002). For products or services with short development cycles (industrial insurances) a key lever of value creation lies in the development of new products meeting large, unmet needs. For products with longer development cycles (specialty chemicals, cars) product development is, of course, important. But, in light of the fact that companies cannot change the most salient product characteristics for years once the product is launched, a key leverage point for value creation in this case is the identification of customer segments that attribute the highest value to a given set of attributes. The goal is to offer something unique, a differentiation that customers will pay for despite the existence of lower priced alternatives.

A frequent mistake is to analyze competitive products and to derive drivers of customer value from this analysis (Ohmae, 2000). Instead, researchers and executives should analyze those factors that really matter for customers, irrespectively of whether or not competitive products currently meet those needs.

Lone Star Industries has launched an innovative concrete called Pyrament, a strong, extremely resistant, fast drying cement. Regular cement cures from 7 to 15 days and a thick bed of cement is required for highways. Pyrament, by contrast, dries in a matter of hours and requires significantly less concrete per meter of construction. When the company analyzes pricing options for Pyrament, marketing managers consider and quantify its unique benefits: highway operators do no longer need to shut down entire lanes of a highway for weeks for routine repairs, being instead able to reopen lanes just a few hours after repair works have ended. Since shutdown time is expensive, the company builds the value proposition of Pyrament around the unique property of reducing downtime. Pyrament's prices are between USD 150 and \$200 per ton compared to USD 60 for traditional concrete.

7.3.3. Create Switching Costs Between Products

Switching Cost Effect. Buyers are less sensitive to the price of a product the greater the added cost (both monetary and nonmonetary) of switching suppliers. The greater the product-specific investments that a buyer must make to switch suppliers, the less price sensitive a buyer is when choosing between alternatives (Nagle & Holden, 2002).

Where the service component is important, personal relationships with qualified sales personnel can represent a significant switching cost. Where a long-term relationship between customers and suppliers is feasible, suppliers can invest in infrastructure to fortify the bonds with customers. With the implementation of automated parts ordering based on inventory levels, suppliers in the automotive industry create strong links with present customers thus increasing switching costs and entry barriers substantially.

B2B on-line retailers have created significant switching costs between their brands and their competitors through in-depth customer knowledge: they store information on customer preferences, tastes, and purchase histories electronically and thus reduce the incentive to switch.

7.3.4. Render Comparisons Between Products Difficult or Impossible

Difficult Comparison Effect. Buyers are less sensitive to the price of a known reputable supplier when they have difficulties comparing alternatives (Nagle & Holden, 2002). The conceptualization of value outlined in

paragraph 3 above is a useful tool to differentiate a company's offering from competitive offerings along six dimensions of value creation.

The capacity to create a differentiated product is confined by the limits of imagination: Even producers of commodities – such as gasoline – differentiate themselves from competitors by their delivery capabilities and the services they provide to customers. Value creation and differentiation for commodities recently takes place along the dimension of the physical product itself and along the dimension of self-enhancement: in this light at least the author interprets the successful introduction of high-octane gasoline (“V-Power”) by Shell, which – according to car companies – does not offer any tangible performance benefits over standard gasoline. A business newspaper quotes a spokesperson of DaimlerChrysler as follows: “The new gasoline does definitely not enhance the performance of our engines” (Beukert, 2003, p. 19). Despite this, the category of premium fuels is the fastest growing fuel category and Shell is the market share leader in this segment (Shell, 2005). In this case the product makes drivers (and also industrial purchasers) feel better about themselves and creates value along the dimension self-enhancement.

Services are a key component of the strategies of all manufacturing companies. Look at GE, a company that transfers its unique knowledge of Six Sigma and M&A expertise to the businesses of its customers, where GE personnel implement the traditional GE practices at the customers' premises.

7.3.5. Increase Prices

Price-Quality Effect. Buyers are less sensitive to a product's price to the extent that a higher price signals better quality (Brucks, Zeithaml, & Naylor, 2000).

Price carries two connotations (Leavitt, 1954). Price is not only the monetary sacrifice necessary to obtain a product, but – in its positive connotation – price can signal the quality of the product and it can confer to its owner an aura of prestige (Dodds, Monroe, & Grewal, 1991).

When product quality is difficult to assess and when provided with a brand name, potential buyers will rely on price to infer quality. In this case, a higher price signals a higher quality. Although empirical studies do not find a general relationship between price and quality (Zeithaml, 1988), consumers do rely on price when they have little experience with the product or when they cannot readily evaluate intrinsic product attributes.

For products perceived to be superior along a critical performance dimension, this effect strongly suggests the opportunity of building a brand

name. Building a brand with a substandard product damages company credibility. If, however, the product is superior, a brand name creates value for customers. Similar to insurance, a brand name offers a guarantee for consistent reliability and performance. Higher prices for brands versus no-name competitors add value for both the customer and the company. Empirical research shows that brands create customer value through enhanced information efficiency (reduction of search costs), through risk reduction, and through provision of intangible benefits such as self-representation or prestige (Schroeder & Perry, 2002).

The value creating effect of prestige is also present in industrial markets. Consider the case of an industrial chemicals company, which faces competition from a no-name brand from China in one of its core markets. The two products are similar, and the price differential is 4 to 1. In what appears like a lost war, the company positions its product as “the product for the country’s most progressive farmers.” Development activities are directed to move the product away from its competitor through innovative formulations, and the product is able to increase its market share despite subsequent price cuts by its Chinese competitor.

7.3.6. Relate the Product to an Important End Benefit

End-Benefit Effect. Customers are less price sensitive whenever the purchase price accounts for a smaller share of the total cost of the end benefit (Nagle & Holden, 2002). The higher the end-benefit to which to product is related, the lower the price sensitivity of customer is expected to be. This effect shows the opportunity of very high prices for products related to an important end-benefit or sold to complement much larger purchases.

Antitrust lawyers, for example, successfully sell exorbitant hourly rates for legal advice in mergers and acquisitions as an insurance against the devastating effects and heavy fines of antitrust lawsuits by the European Commission or the Federal Trade Commission.

Marketers can use this strategy also when the risk of failure is very high or when they can persuade customers to perceive the risk as high. Car manufacturers have largely succeeded in this approach in the market of original versus no-name spare parts.

7.3.7. Be Fair (or, at Least, Create the Impression of Being So)

The perceived fairness of the transaction plays a key role in determining the willingness to buy.

Prospect theory (Kahnemann & Tversky, 1979) argues that individuals evaluate expected decision outcomes in terms of gains or losses from

a reference point, where losses have larger negative utility than gains of the same amount, thus proposing a utility function that is steeper for losses than for gains. Decision makers judge a loss as more painful as they judge a gain of equal amount as pleasurable.

Marketers use these findings to suggest that products should be positioned in such a way to offer potential customers a gain rather than merely preventing a loss. Insurance companies, security agencies, and IT companies, for example, follow this advice: Remote data backup companies offer peace of mind and tranquility rather than preventing theft or loss of valuable data. Similarly, fleet management companies advertise their services nearly exclusively as mean to gain control and visibility over expenses rather than as mean to prevent problems, something customers are more likely to resent to having to pay for.

Prospect theory is also useful when marketers are confronted with the problem of having to justify steep price increases. They can obscure the reference price, by selling in unusual packages, formats, or quantities. They can also implement the price increase in two steps: in a first step, a discount is offered on an increased price for a certain period of time. Subsequently, the discount is eliminated. In this way, consumers will experience a gain from benefiting from the initial price reduction, rather than being confronted at once with a steep increase (Smith & Nagle, 1995; Mazumdar, Raj, & Sinha, 2005).

7.4. Set Price Level

The author suggests viewing pricing decisions in light of the strategic triangle originally developed by Ohmae (1982). This triangle is expanded to include an additional dimension: channel partners.

For each of the four dimensions – company, customers, competition, and channel partners – this paper suggests to use specific tools to guide profitable value delivery and pricing decisions. Cost volume profit (CVP) analysis should be used to capture the company-internal perspective, competitive analysis to gain insight on trends in competitive strategies, customer value analysis to understand sources of value for customers, and channel analysis to incorporate the channel perspective in pricing and value delivery decisions. The next sections discuss each of these instruments in turn.

This framework suggests questions such as, “How do prices affect volumes and profits?” “How will competitors react to different pricing strategies?” “What is needed to obtain channel support for a given strategy?” “How can I design a cost-effective and customer friendly channel mix to

delivery value to customers?” and finally, “What is the value of the product or service in question to different customer segments?” Once executives have answered these questions, value delivery and pricing decisions can be built on a well-founded basis rather than being the result of the accountant’s cry for a minimum margin or the sales manager’s desire for competitive price levels. Consider the case of Schering-Plough’s Claritin in the oral-cold drug market. The product carries a price premium of over 200% over existing drugs, yet is the category leader just 2 years after launch. This is possible only after having gained a profound understanding of the sources of value of the product to customers.

Traditionally, marketing executives are reluctant to price a new product significantly above existing price levels – especially if the goal is to gain market leadership. A profound understanding of the sources of value for customers helps to avoid one common error in pricing decisions: pricing truly innovative products too low.

This section discusses tools that will guide both the implementation of profitable pricing policies as well as the design of effective value delivery strategies.

- customer value analysis: the understanding of the sources of economic value of a product to different clusters of customers
- CVP analysis: the understanding of the implications of price and volume changes on company profitability
- competitive analysis: the understanding of trends in competitive pricing, product offerings, and strategies
- channel analysis: the understanding of channel options, channel functions, channel perceptions, and the design of instruments to win channel support.

7.4.1. Customer Value Analysis

In order to quantify economic value correctly, performing the following six steps is necessary.

Step 1: Identify the cost of the competitive product or process that consumer views as best alternative. The first crucial step is to put oneself in the eyes and in the shoes of customers and to ask what they view as best alternative to the purchase of the product being analyzed. This need not be a physically similar product; in the end, most products are used to perform a certain function or to attain certain goals. Any product, process, or activity the customer could alternatively use can serve as reference product. As in most cases several products or activities will be able to perform at least part

of the functions examined, the economic value of a given product will have to be calculated against at least the principal two or three best alternatives.

The set of products used for comparison depends on the customer's, not the company's, assessment of available alternatives. For example, a company in the agrochemical industry is inclined to think that customers use a competing product as their alternative upon which other products are judged and is surprised to learn – after field value in use assessments – that for a certain customer segment hand weeding is actually the preferred alternative.

Step 2: Segment the market. The first step of the process immediately leads to the second step of segmenting the market. Significant differences in economic value arise from the way in which customers use and value the product and from how they value their respective reference products. These differences result from differences in incremental value, which in turn usually result from distinctive characteristics of the customer, the usage of the product, or environmental factors.

Already in the 1960s Weir comments on market segmentation: “It is assumed that countless individuals comprising “the market” will be waiting and ready – like the ideal bride – to respond to the appeal and have consummation result. However, . . . , “the market” is not a single, cohesive unit; it is a seething, disparate, pullulating, antagonistic, infinitely varied sea of human beings – every one of them as distinct from every other one as fingerprints; every one of them living in circumstances different in countless ways from those in which every other of those is living. How can the most self-intoxicated writer, realizing this, assume that without genuine communication, he can “get through”, he can convince another human being (whom he does not physically confront) that he is speaking to him? If he writes to an unreality like a “market” he is bound to sound unreal” (Weir, in: Yankelovich, 1964, p. 90).

A company with a broad, fragmented product line, limited physical space for inventory, and rapid response times will assign a higher value to just-in-time delivery than a company with only one product line and ample space for inventories. This explains why those companies most adept at implementing value-based pricing decisions – such as software or pharmaceutical companies – know that no other way of gaining insight into sources of customer value exists than through observation and intense field-research into customer habits and requirements. Microsoft, for example, is known for handing out beta-versions of its latest enterprise software products to particularly knowledgeable companies and customer segments. This form of free customer feedback is used to determine which

features add most value and to gain a deep understanding on how different customer segments use and value the product.

Step 3: Identify all factors that differentiate the product from the competitive offering. The conceptualization of customer value (paragraph 3) is a useful tool for identifying the set of features differentiating a given value proposition from competitive offers: product quality, delivery capabilities, services, ease of doing business, the vendor itself, and self-enhancement can thus be assessed.

The notion of these differentiating factors is closely related to the concept of competitive advantage: Duncan, Ginter, and Swayne (1998, p. 7) define competitive advantage as “the result of an enduring value differential between the products and services of one organization and those of its competitors in the minds of customers”. The customer, not the company, is the judge deciding on whether or not the differentiating factors are actually relevant to better satisfy his needs and ambitions. For companies, this means nothing less than to define quality the way the customer does.

Step 4: Determine the value to the customer of these differentiating factors. Once tangible sources of differentiation have been identified, monetary values are assigned to these factors for each identified segment of the market. The paragraph below discusses respective methodologies in detail.

This process is straightforward for high-priced industrial equipment, where expert sales personnel know how to quantify reduced failure rates, start-up costs, or life cycle costs in monetary terms in order to demonstrate the value of a certain product to actual or potential customers.

Conjoint analysis is a simple tool which aims to capture trade-offs in product features in a systematic way and to assign monetary values to specific attributes (Auty, 1995). Company personnel presents customers with a set of two similar products differing in price and along other dimensions and captures customer preferences for different combinations of product features and price levels.

By presenting options such as (a) a lower price and no technical support and (b) a higher price coupled with support and guarantees, conjoint analysis is able to quantify the value of specific product or service attributes for a group of customers.

Step 5: Sum the reference value and the differentiation value to determine the total economic value. The product's value is the sum of the price of the reference product plus its differentiation value. As the price of the reference product and the value of differentiating attributes are likely to vary across customer segments, the result of this process is not likely to be one monetary value for any given product, but rather a “value pool”

reflecting the fact that different customer segments assign different values to the product or service examined.

Step 6: Use the value pool to estimate future sales at specific price points. Researchers represent customer value of different market segments via the value pool or customer value profile. This allows estimating sales at different value creation and price points. For each price point, sales are expected to comprise a share of all market segments which value the product higher than the specific price examined.

To assign a precise number to value, Anderson, Jain, and Chintagunta (1993) propose one of the following nine quantification tools:

- internal engineering assessment (“expert interviews”): company experts estimate customer value of new offerings in laboratory tests.
- Field value-in-use assessment: company personnel observe and interview customers during the process of actually using new offerings to obtain estimates of customer value.
- Focus group value assessment: company personnel ask customers in groups of 5–15 to evaluate the importance and impact of new product concepts to themselves or the operations of their company.
- Indirect survey questions: company personnel ask customers to evaluate small changes to existing products to indirectly infer customer value from their comments.
- Direct survey question: company personnel ask customers to evaluate new product concepts to directly infer customer value from their reactions.
- Importance ratings: following conceptual work by Kano (see: Matzler, Hinterhuber, Bailom, & Sauerwein, 1996) company personnel ask customers to indicate the importance of and satisfaction with a set of existing and new product attributes in a questionnaire. Answers to these questions allow to estimate customer value of existing and new product offerings: Customer value is highest for those products and product concepts where perceived customer importance is high and, at the same time, satisfaction with current product offerings is low.
- Benchmarks: company personnel present customers a “benchmark,” or current competitive standard, and ask customers on their willingness to pay for certain additions of attributes or features to this standard.
- Conjoint or trade-off analysis: in a field research survey, company personnel ask customers to evaluate a set of potential product offerings. Each offering consists of an array of attributes or features, levels of these attributes are systematically varied within the set of offerings.

Respondents provide a purchase preference rating (or ranking) for the offerings. Statistical analysis is then used to “decompose” these ratings into the value (“part-worth”) that the respondent places on each level of each attribute. Each attribute then receives a value (Auty, 1995).

- **Compositional approach:** in a field research, company personnel ask participants to evaluate the single components of the offering separately and individually. The sum of these individual ratings leads to the value of the overall product offering.

In their empirical analysis they find that focus group value assessments and importance ratings are the most widely used methods, while conjoint analysis is reported to have the highest practical success rates.

The Drivers of Purchase Decisions. Rational purchase decisions do not rely exclusively on economic value versus price – also the perceived fairness of the transaction plays a role in deciding whether a product with a certain perceived value is actually bought. The willingness to buy is the result of the surplus value of the product and the perceived fairness of the transaction (Thaler, 1985). The surplus value of products and services is the difference between the value assigned to them and their price. The perceived fairness of the transaction is influenced by the price paid compared to internal reference prices (Thaler, 1985).

The internal reference price is the price or price level, which customers expect and perceive as fair for the product category in question (Smith & Nagle, 1995). Customers hold reference prices internally, where they form over time and reflect standard, i.e. average, category prices. The underlying premise is that consumers do not respond to prices absolutely, but rather relatively to the reference price (Thaler, 1985). Customers evaluate actual prices against reference prices in purchasing transactions and frame the transaction as either “fair” or “unfair.” Take the example of the Japanese industrial equipment manufacturer discussed in paragraph 9. Although the company can charge industrial customers more than 250,000 USD for its product while still offering them an attractive and financially interesting value proposition, customers are probably reluctant to pay a price premium of 600% over the best available alternative. Although fully convinced of the economic value of the product, customers will perceive this transaction to be “unfair” in the sense that customers perceive the supplier to attempt to capture the near totality of the benefits created via excessively high prices.

Pricing based on economic value analysis can lead to high relative price levels. Industrial marketers should remember that the perceived fairness of

the transaction is an important part of the mechanism. This leads to the natural *caveat* that the fairness of the transaction needs to be explained and demonstrated when pricing based on economic value leads to relatively high price levels.

7.4.2. CVP Analysis

The attention is now on the company itself and its cost structure. Few executives are able to answer the following question: “If prices increase by 10%, how much turnover can the company afford to lose if overall profits are at least to be maintained?”

The answer to this question depends exclusively on a product’s profitability, that is, on its contribution or gross margin (net sales revenues less variable expenses). CVP analysis the tool designed to perform this analysis (Guidry, Horrigan, & Craycraft, 1998). A look at the following figure reveals the necessary sales increase/the maximum sales reduction for contemplated price reductions/price increases for different levels of product profitability (20–50–80% gross margin). (Fig. 9)

For products with 20% contribution margins, for example – which manufacturing companies generally as low-margin products – a price reduction of 10% would have to translate into a 100% increase in sales in order to be profitable. On the other hand, for products with contribution margins of 70%, a price increase of 10% is profitable if sales decline by 13% or less.

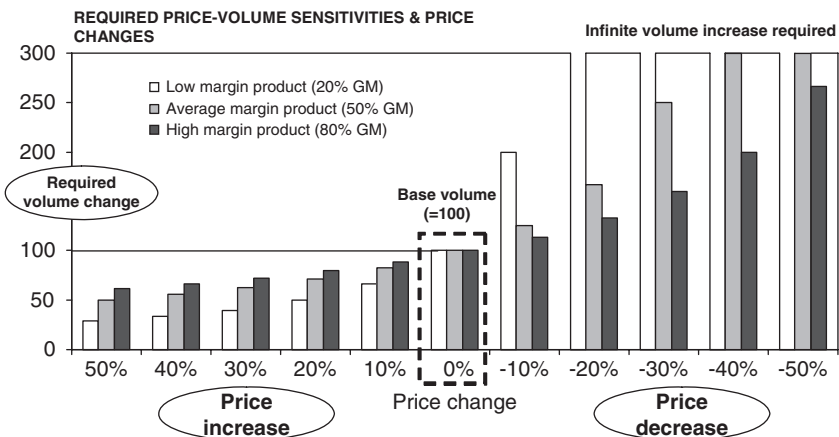


Fig. 9. Cost Volume Profit (CVP) Analysis.

The formula for CVP calculations is the following (Smith & Nagle, 1994):

$$\begin{aligned} \text{Break even sales change (\%)} &= \frac{-(\% \text{ Price change})}{\% \text{ Contr. Margin} + (\% \text{ Price change})} \\ &= \frac{-\Delta P}{\text{CM} + \Delta P} \end{aligned}$$

CVP analysis is a simple, yet powerful tool to assess whether contemplated price changes have any chance of being profitable for the company. Low-margin products usually require fairly large volume increases for price reductions to be profitable; profitability can be increased either by a price increase or by dropping the product in question. For high margin products, on the other hand, price increases can be quite profitable, if volumes are expected to decline less than the amount indicated in the figure.

CVP analysis can also incorporate incremental fixed costs: if, for example, a promotional campaign is associated with the planned price reductions or price increases. The process consists of two steps:

- (1) the necessary volume increase for fixed costs investments is the result of the following formula:

$$\text{Break even-sales change (in currency)} = \frac{\Delta \text{ Fixed costs (in currency)}}{\text{Contribution margin (in \%)}}$$

Assume investments for a promotional campaign or for hiring and training additional sales reps amount to USD 50,000, and that the product in question has a 50% contribution margin. In order for this investment to be profitable, sales would have to increase by USD 100,000.

- (2) In a next step, planned price changes can be analyzed together with planned fixed costs investments:

$$\begin{aligned} \text{Break even-sales change (\%)} &= \frac{-\Delta P}{\text{CM} + \Delta P} \\ &+ \frac{\text{Change in Fixed Costs (\$/Euro)}}{\text{"New" unit CM} \times \text{initial unit sales}} \end{aligned}$$

Again, CM stands for contribution margin and "new" unit contribution margin refers to the contribution margin after the planned price change. An example will clarify the equation.

If a price reduction of 10% is planned and if USD 50,000 is needed to communicate the special offer, how much additional sales are necessary in order for the price reduction to be profitable?

If the initial unit price is 10, and if initial unit sales amount to 100,000 the equation will give the following results:

$$\text{Break-even sales change (\%)} = +25\% + 13\% = +38\%$$

In other words, sales would have to increase by close to 40%. If the same question is asked for a corresponding price increase, the answer would be:

$$\text{Break-even sales change (\%)} = -17\% + 9\% = -8\%$$

If sales decrease by 8% or less, a 10% price increase is profitable – even with the substantial investments in promotional activity.

The exercise here confirms a common-sense assumption; however, also seasoned executives often fail to understand the amount of additional turnover required to aggressively promote and sell lower margin products.

7.4.3. Competitive Analysis

The third cornerstone of profitable pricing decisions is competitive analysis. The following elements are important in this process.

Threat of New Entrants. Even before analyzing current competitors, managers need to understand and evaluate the threat of new competitive entry. Setting prices exclusively in function of value to the customer can lead to relatively high prices, especially if products or services are truly unique or highly differentiated. This in turn can attract new competitive entry. Specifically, the threat of new entrants will depend on factors such as access to distribution channels, access to raw materials, technical barriers to entry, customer's propensity to switch, and quality differentials between incumbents and new entrants. Competitive analysis involves an examination of all these factors.

A case study further illustrates this point (see: Drucker, 2005). Xerox launches a commercial version of the fax machine in the USA in the mid 1970s. The company sets product prices at an amount closely matching the full amount of customer value created. In other words, in the absence of cheap airline travel, the internet and overnight parcel services, prices are relatively high: Since customer value is high, customers are enthusiastic and first year sales vastly surpass Xerox's own internal revenue goals. In setting prices, Xerox, however, does not take into consideration one key factor: the risk of new competitive entry. Not long afterwards, the Japanese company

Matsushita enters the market with a fax machine priced 40% below its American rival. Xerox loses its market share leadership almost overnight. Xerox prices certainly optimize short-run profitability. Given that these price levels make new competitive entry extremely profitable the pricing decision of Xerox probably did not optimize long-term profitability in this market segment. With hindsight, and in anticipation of new competitive entry, the company would have been much better off, had the company's marketing managers set prices somewhat more conservatively, thus making competitive entry more costly and/or more risky.

Price Trends in Existing Markets. Executives should monitor prices and price trends in major market segments carefully in order to know where the market is and where the market may be going in the future. Especially in industrial markets customers may deliberately lie to sales personnel about prices offered by competitors. In doing so, they hope to obtain larger discounts or more favorable selling terms. Without a reliable database of competitive information, sales personnel is frequently tempted to lower prices in order to win the order, thus potentially destroying price levels in the market and starting a price war which all competitors would have liked to avoid. The only way out of this and similar dilemmas is to instruct sales personnel to collect information about price levels, price trends, and discounts offered on a regular basis. This step allows the spotting trends quickly and to steer sales personnel and their pricing policies much more effectively.

Competitive Strategies. Specific points worthwhile of further investigation are strategies of competitors, estimated profitability across principal product lines and market segments, future expansion plans, strengths and weaknesses in different segments, and anticipated future competitive behavior. As a result, executives can answer with confidence questions such as: Which of current market segments and/or customers are threatened most by strategies of competitors? How can stability and profitability of industry be preserved? How can the company avoid a price war legally?

Information About Distribution Channels. Relevant information here includes: market share with key distributors, amount of products stored in distribution channels, pricing and payment policies of distributors, incentive schemes of principal competitors, sales forecast from selected distributors, competitive activities with distributors (promotions, new product launch initiatives), etc.

Reference Values for Customer Groups. Customer value analysis relies heavily on the notion of reference value, i.e. the customer's best alternative to the product being acquired. Different clusters of customers invariably take a different product as reference value for the purchase in question. In addition, customer preferences change-over time. Obtaining reliable information about different reference values and about the competitive products behind them is critical in order to develop effective value delivery and pricing strategies.

Likely Reactions to Price Changes. If economic value analysis and CVP analysis suggest price increases on some products, marketing managers need to anticipate likely reactions of competitors to these price changes.

7.4.4. Channel Analysis

Increasingly powerful distribution channels are a key stakeholder in the value delivery and pricing process. For many industrial companies addressing the specific needs and perceptions of distribution channels is becoming as important as meeting end customer needs. In the end, if an industrial company cannot get support for its value proposition or cannot deliver its value proposition efficiently to customers, chances of meaningful sales are slim: the best and even least expensive product will have no chance of being successful if customers have no way to buy the product through a sufficiently widely dispersed distribution network.

The fourth cornerstone of profitable pricing decisions is thus channel analysis, the process of analyzing channels, channel functions, of allocating tasks to channels, and of benchmarking the a company's go-to-market strategy with competitors and with customer needs.

Customer Segmentation. The process of economic value determination (see Section 7.4.1 above) leads to the identification of distinct and separate customer segments that value a given set of differentiated attributes uniquely and differently than other customer segments. This segmentation is useful for designing channel and value delivery strategies. Some customer segments will prefer high-touch, high value-added channels, while other customer segment will see little benefit in these, seeing channels essentially just as low-cost delivery mechanisms. An understanding of value to the customer thus not only helps to identify distinct market segments requiring distinct product or service offerings, but also to design appropriate channel strategies for each of these distinct customer segments.

Link Channel Functions with Customer Segments. Industrial channels typically fulfill the following functions (Dolan, 2000; Rangan, 1994):

- demand generation: attracting attention as supplier; generating category and/or product demand
- demand qualification: separating potential customers from customers company wants/its able to profitably serve
- demand fulfillment: providing product information, customizing products, assuring product quality, providing desired lot sizes and desired assortment, ensuring product availability, providing credit services to fulfill demand
- after sales service: providing warranties, guarantees, repair, replacement products in case of performance exceptions, providing spare parts and performance upgrades
- feedback to manufacturer for strategy improvement. Channels are touch points to customers; they thus obtain information on customer desired value changes (Flint et al., 2002), on new competitors, on competitive strategies of incumbents, on customer reactions to a company's value proposition and on other relevant markets trends.

List available Channel Options. Typical options here include a company's own salesforce, third party sales forces, agents, distributors, value-added resellers, wholesalers, retailers, telephone sales, and web-based direct sales.

Link Channels with Channel Functions. Moriarty and Moran (1990) suggest using the hybrid grid to decide on how to assign specific tasks to the universe of potentially available channels. The top line of this grid lists channel functions as outlined above, the vertical side lists alternative channels as captured in the previous step. This matrix is a useful tool to separate channel functions from specific channel options, leading to a clearer demarcation of tasks among (frequently competing) channel members. The matrix thus can be used to align marketing mix functions to the needs of specific customer segments and to highlight areas of overlap and channel conflict.

List Required Resources to Obtain Channel Support. These resources will include channel margins, but also other investments (infrastructure investments, advertising, training, product support, product samples).

Evaluate Benefits and Costs of Different Channel/Functional Combinations. Different channels invariable have differing ability to reach specific

customers; each channel options will thus allow reaching a different set of revenue, market share, gross margin, profit, and cash-flow targets. Different channels also differ in their direct costs (margins) and fixed costs (investments into infrastructure, training, advertising support). This step compares costs and benefits of alternative channel and function combinations.

Identify Mechanisms to Deal with Channel Conflict. Channel conflict arises when one channel member perceives that another is engaged in behavior that prevents or impedes the first company from achieving its goals (Webb & Hogan, 2002). Invariably intra- and inter-channel conflict will result from any of the resulting channel, function, customer segment combinations. Channel conflict is not necessarily a problem, since at least this indicates the company has achieved broad market coverage.

Based on a case study of four organizations Webb and Lambe (2007) conclude that manufacturers may even have an interest to increase channel conflict after new product introductions. This claim has broader empirical support: In a survey of 65 channel managers from four industrial organizations Webb and Hogan (2002) find that channel conflict intensity does not have a negative effect on channel performance.

In conclusion, channel conflict is a fact of life, and as with competition, empirically grounded signals exist which indicate that a certain amount of conflict is beneficial for overall performance.

7.5. Implement Value Delivery and Pricing Strategy

The proposed model of customer value in business markets provides the foundation of assessing and creating value in industrial markets: conceptualizing value along the six dimensions allows measuring the value currently created as well as exploring options to further increase value. Once value has been assessed and created, a pricing strategy can be developed.

Value to the customer analysis, CVP calculations, competitive intelligence, and channel analysis provide the cornerstones of effective pricing strategies. With this information in mind, the justification, the magnitude, and the impact of price increases can be estimated. If, for example, economic value analysis suggests to reposition the product and to increase prices by 30%, CVP calculations can be used to determine the maximum amount of affordable volume loss. For a product with a 70% margin, this price increase is profitable, if volumes decline by the less than 30%.

Now researchers and executives gather feedback from sales managers, marketing staff, distributors, other channel members and a sample of customers to assess whether the actual volume loss is likely to be larger or smaller than this number. If exploratory research suggests that the actual customer price elasticity is lower and that the predicted volume loss is 15–20%, managers and researchers have a strong case for implementing the contemplated price increase.

Once the magnitude of a price increase (or price reduction) is known, the price change has to be implemented. The sales force has the key task of justifying, communicating, and implementing these price changes – in addition to the responsibility of proactively discussing with headquarters the issue of any price alterations whenever necessary.

Executives with a sales background know that controlling sales personnel in the field is challenging: whatever instructions on recommended product use, positioning, and price headquarter staff may communicate to sales personnel, managers in head-office cannot be 100% sure that these instructions are actually followed: Sales personnel simply have too many temptations to win sales in unorthodox ways. In informal discussions with customers, sales managers might be tempted to suggest, for example, nontraditional ways of using the product (think of the widespread and illegal off-label usage of drugs in the pharmaceutical industry). In the worst case, they might suggest to customers that the recently implemented price increase is nothing else than headquarters' version of attempting to increase profits at the expense of customers and that, if several large accounts refuse to sign any orders, the price change will be reversed in the next 3 months. Sales personnel have the potential to fortify and to destroy any planned price changes. Effective management of the sales force is important. Several issues are relevant.

7.5.1. Involve Sales Executives in Pricing and Value Delivery Decisions

Nothing can be more frustrating for sales personnel than having to confront a long-standing customer – and, therefore, potentially also a friend – with the *fait accompli* of a significant and sudden price increase or the decision to terminate a certain product offering. Before implementing any changes in pricing or value delivery policy, marketing executives need to solicit input from sales personnel. Rather than being given the impression of having to execute a decision from headquarter, sales managers should truly feel that they are acting on nothing else than their fullest conviction. They need to have a say in pricing and other marketing issues. Otherwise the Roman proverb “Whoever is not working with you, is working against you” might just come true.

7.5.2. Implement a Fixed-Price Policy

Stephenson, Cron, and Frazier (1979) investigate whether salespeople with no authority to deviate from list prices, those with limited authority to deviate from list prices or those with full discretion with regards to pricing generate the highest gross margins for their companies. They find that firms that give sales personnel the least pricing authority generate the highest levels of gross margin.

Fixed-price policy encourages sales personnel to sell on value and not on price. A fixed-price policy does not mean that all customers actually pay uniform prices: Segmented pricing – by type of customer or distribution channel – can complement a policy of fixed prices. In this way, sales managers have the flexibility of adapting prices to different types of customers or distribution channels, but the criteria of this segmentation are out of their hands. Marketing and sales managers in headquarters make sure that this segmentation is consistent across sales territories and reflects the strategy of the company.

7.5.3. Identify and Reward High Performing Sales Personnel

In a survey of 2,500 sales representatives and 300 district managers in the pharmaceutical industry Elling, Fogle, McKhann, and Simon (2002) do not find any correlation between sales personnel performance and the amount of bonus received. Top performers receive the same amount of bonus as sales personnel classified in the bottom third of performance. Sales compensation is a tool for achieving sales performance levels in line with overall marketing and business unit strategy. Sales compensation schemes thus need to differentiate between high and low performing sales personnel in order to increase the likelihood of implementing value delivery strategies.

7.5.4. Reward Sales Personnel for Profits and not Sales

Current compensation schemes are severely biased towards selling volume. In an in-depth survey of large manufacturers, the consulting company McKinsey finds that 80% of companies base their compensation and incentive scheme for sales managers exclusively on revenue (Alldredge, Griffin, & Kotcher, 1999). Only a minority of companies link compensation to any form of profitability. If executives feel that product margins should not be fully shared with sales personnel, the compensation scheme can be based on a simple point scheme: points then should reflect product or account profitability.

7.5.5. Involve Sales Personnel in the Strategy Process

Besides soliciting proactive input from sales managers on pricing, executives should attempt to involve the sales force in other aspects of strategy: sales managers should be involved in the late stage of the new product development process for feedback on product attributes and features; they can also help headquarter to identify lead customers, i.e. those customers particularly able to sense market trends, customer desired value changes (see: Flint et al., 2002) and to help the company adapt its strategy to changing environmental conditions.

7.5.6. Be creative with Marketing Strategies

Except for the packaged goods industry or apparel, where some of the most creative and expensive advertising campaigns come from, creative marketing strategies are still easy and cheap to implement. Chemicals, banking, consulting, etc. still have much room for creative marketing practices. Price or product bundling, for example, should be used wherever bundling adds value for the customer and offers the potential to stimulate sales (Stremersch & Tellis, 2002).

7.5.7. Make the Company Easily Accessible for Customers

Not only internet-based stock brokerages, but also car manufacturers, pharmaceutical companies, insurance companies, and the like should consider offering 24/7 hours call center to actual and potential customers.

Many companies still have a lot to learn in the way customer complaints are handled. In many companies even ridiculously small amounts of products offered in return to complaints have to be approved by headquarters. Also here, sales managers need to be given far more discretion, informing their supervisors only periodically, rather than having to explain customers the complicated routes of refunds policies.

7.5.8. Commercial and Technical Personnel Should Converge

In many companies, commercial personnel have the responsibility to facilitate transactions, while technical personnel have responsibilities linked to new product launches, complaints, or difficult questions. In the end, sales people sell and technical people, well, have a technical or R&D background. This distinction can be outdated and wasteful. This leads to technical personnel being comfortable in research labs, but only remotely familiar with real customer issues and to sales personnel unwilling to keep up to date with the leading edge of science in their field. By broadening the function

of sales personnel to include full accountability on all technical issues, companies can both streamline their customer interface and reduce costs.

8. PRACTICAL APPLICATIONS OF THE FRAMEWORK – ILLUSTRATIVE CASE STUDIES

A leading agrochemical company faces the challenge of finding an appropriate price for the new, breakthrough insecticide Zenta used in the citrus market. By using the tool of economic value analysis, the market is divided in six segments: two segments comprising small-scale farmers and four segments with mainly professional export farmers. For simplicity, the author presents the analysis for two market segments. For one segment of small-scale farmers, the reference product used is an off-patent product imported from China. Despite the broad spectrum of innovative features of Zenta – among others the extremely low dose rates and thus the low impact on the environment – potential users in this segment value mainly the excellent efficacy of the product and the fact that Zenta reduces the number of sprays from about 4 to just 1 per season. Customers acknowledge the other product features as positive, but are unwilling to pay for them.

Residue levels of their products, which can severely hamper the ability to compete on international fruit markets, is a main concern of export farmers. One key benefit of Zenta is the extremely low dose rate – in the order of magnitude of 1/1,000 of a gram per kg of fruit –, which makes the product ideally suited for low-environmental-impact treatments. In addition, professional export farmers value the fact that Zenta has a scientific track record of increasing the “pack-out ratio,” the percentage of oranges meeting the strict quality criteria of export markets. They also value the fact, that – instead of having to use their tractor to spray in their orchards – they can apply the product by their drip-irrigation system, thus reducing mechanical damage to citrus trees. Zenta also reduces the total number of sprays from about 8 – in the case of professional farmers-per season to just 1 – which represents a significant cost and time factor. On the negative side, the product carries the risk that on occasion, and dependant upon insect infestation, 1 additional spray is required later in the season. This particular market segment values the economic benefits of Zenta at USD 140/ha, compared to USD 50/ha for the segment of small-scale farmers.

If these steps are applied to all six market segments, the value pool of the market can be determined. This indicates the total value created for each

CUSTOMER VALUE ANALYSIS –AN APPLICATION

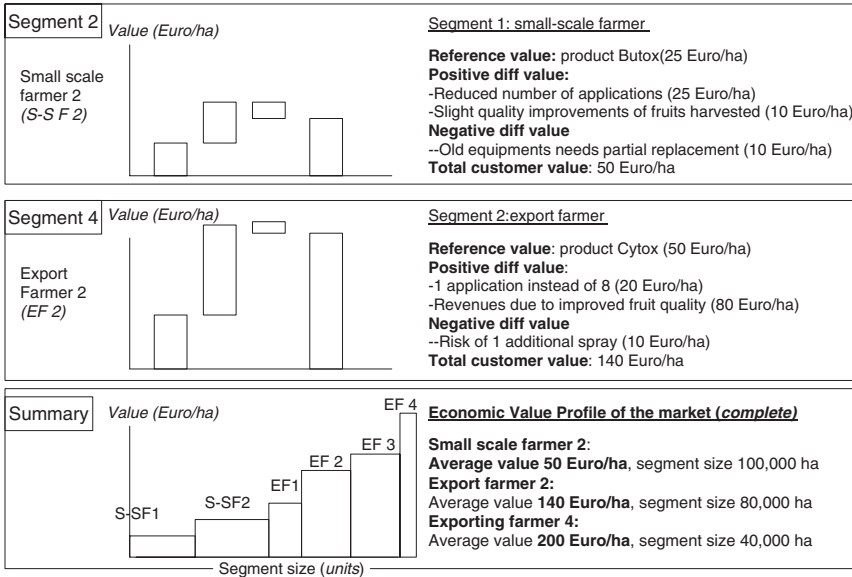


Fig. 10. Customer Value Analysis and the Pricing Decision for a New Product.

market segment and the segment size (in units). The figure below illustrates these relationships: (Fig. 10)

The chemical company is able to use this information in a number of ways: first, the company is able to design a range of products whose features are uniquely tailored to the needs and perceptions of value of each of the six segments identified. Secondly, the company is able to design a price structure for each of these six product offerings which closely track the value these products create for customers in the respective segment. As a result, the company is able to radically change its value delivery and pricing policy for new products: instead of developing and launching one new product to a market with differentiated needs, expectations of value, and willingness to pay, the company designs a range of products, each with unique features, and a unique value/price profile. As a result, revenues increase by more than 80% compared to the previous “one size fits all” approach; as a secondary benefit, the array of products the company now has on the market makes the company much less vulnerable to generic entry, once the patent on the product expires.

Another example of pricing decisions directly influenced by customer value analysis is the case of a Japanese industrial equipment manufacturer. In

Japan its standard model carries a price equivalent to 80,000 USD compared to 50,000 USD for a similar model by its main competitor from the United States. Prices in the US, the second largest market, are slightly different, although the same absolute price differential between the two models exists. In Japan, the company sells about 80% more units than its US competitor, while in the US, where the company has a weaker distribution system, both companies have roughly the same unit sales – although historical growth rates of the Japanese company by far exceed the growth rates of its US rival. What is the reason the Japanese company is able to achieve both a high relative market share and a significant price premium?

The answer lies in a unique understanding of the sources of value to customers on the one hand, and in a superior ability to create and deliver this value to customers on the other hand. For each industry segment, the Japanese company develops detailed financial models of different cost and benefit components of its own equipment versus its main competitor.

For a customer in the printing ink industry, the company sales and marketing personnel quantify the positive and negative differentiation value as follows:

Reduced start-up expenses (one-time benefits)	5,000 USD
Reduced operating expenses (monthly avg. benefits)	3,000 USD
Value of 99% of output meeting specifications compared to 95% for main competitor (monthly average benefits for a medium-sized printing ink manufacturer)	2,000 USD
Value of reduced change-over time (monthly average)	1,000 USD
Value of reduced downtime (monthly average benefits)	5,000 USD
Higher residual value after standard amortization period (one-time benefits)	10,000 USD
Re-training of maintenance staff (one-time costs)	–20,000 USD
Increased energy consumption (monthly average costs)	–1,000 USD
Increased supervision of equipment (monthly average costs for first 6 months of operation)	–3,000 USD
Net benefits (yearly average)	97,000 USD

Under this angle, the price premium of the Japanese company is modest: if an interest rate of 8% is applied to the net benefits gained over the average life-cycle of this equipment of 4 years, the positive differentiation value amounts to over 300,000 USD. Customers are expected to pay only a small fraction – less than 10% or USD 30,000 US – of the product's incremental value to this particular customer segment.

Also in this case, the higher priced product ends up costing the customer less. This is an important lesson for industrial marketing managers: If researchers and company personnel create, quantify, and communicate value to customers, high prices and high relative market share can co-exist.

9. CONCLUSIONS AND DIRECTIONS FOR FURTHER RESEARCH

The cynic knows the price of everything and the value of nothing. Oscar Wilde.

This paper covers a number of points. First, the paper advances the conceptualization of value in business markets by further developing the model of Ulaga and Eggert (2006), arguably the most rigorous conceptualization of customer value in business markets today. The empirical basis of these advancements is a grounded theory approach where the author captures, summarizes, tests, and validates the experiences of 35 marketing executives. Specifically this empirical work adds two new dimensions – ease of doing business and self-enhancement – as sources of value for customers in industrial markets which existing models do not capture well. Based on in-depth discussions with managers participating in these workshops, empirically grounded evidence exists that industrial companies are already providing value to their customers along these two new dimensions.

Further validation of the proposed model and measurements to quantify value are the next critical empirical steps which are urgently required. On the one side, the property of future orientation of the construct of value in business markets (par 3) opens up potentially fruitful research questions such as: What is the impact of perceived and what is the impact of true (i.e., objective) uncertainty on perceived customer value? What is the role of emotions – such as fear – in shaping perceptions of uncertainty which affect perceived customer value? How can companies shape uncertainty to their advantage (increase perceived uncertainty of competitive products, reduce perceived uncertainty of own products)?

In addition, further qualitative studies are needed to understand whether the proposed model of value creation in business markets is exhaustive. Next, LISREL and structural equation models can be used to understand the validity of the entire model and to pinpoint which subdimensions of value

(product, delivery capabilities, services, ease of doing business, vendor, self-enhancement) are most closely associated with overall customer value:

Consider which subdimensions of the construct value in business markets (Table 2) relate most closely with overall customer value across industries, across countries, for different members of the buying center, across customer categories, across product categories, across market segments, and across intensity of buyer–supplier relationships. From a theoretical perspective, this step allows the building and validating parsimonious models of value creation and delivery where causal links become evident. From a practical standpoint this step helps managers understand along which dimensions customer value needs to be further increased to maintain, defend, or gain a competitive advantage, and, conversely, which dimensions of value matter less. The resulting insight from this understanding will have profound impact on business unit strategies.

Longitudinal analysis finally can help to shed light on dynamic aspects on customer value in business markets: causal relationships triggering shifts in the relative importance of alternative subdimensions of value and overall customer value need to be explored. Extant research in this area acknowledges the need for further theory development (Flint & Woodruff, 2001; Flint et al., 2002).

In a second step this paper summarizes available empirical research on pricing practices in industrial companies. Own empirical research on pricing practices at a major Fortune 500 company in the industrial process industry complements this literature survey. As conclusion the author notes that customer value-based pricing approaches are currently the least diffused approaches in industrial pricing practice (average influence 17% across all surveys), despite being nearly universally heralded as superior approaches to set prices. In this respect, this paper also summarizes extant literature on the link between pricing approach and profitability: Despite repeated claims in extant marketing literature (e.g., Monroe, 2002) that customer value-based pricing approaches increase profitability, extant marketing literature does not produce a single empirical study supporting this claim.

The empirical exploration of the consequences of alternative approaches to pricing – that is, their impact on business unit or company performance – is thus one of the areas where most urgently further research is required in the future. In particular, further work is necessary to operationalize the degree to which alternative and often not mutually exclusive approaches, to pricing are used in practice and to understand the performance impact of alternative pricing approaches on business unit or company profitability.

In a third step, the paper proposes a model of value delivery and value-based pricing in industrial markets. After taking a company's objectives into consideration, the author suggests to create value along the six dimensions of customer benefits defined (see paragraph 3). The next step is value communication. The tools of customer value analysis, CVP analysis, channel analysis, and competitive analysis are appropriate to reflect the customer, company, channel, and competitor perspective relevant for all strategic decisions. The last step implements the value delivery and pricing policy and illustrates ways to overcome challenges industrial companies face in this respect. Pricing is a process with a feedback loop: assumptions need to be revisited, environmental dynamics, changes in customer desired value need to be taken into consideration, which requires a reiteration of the steps outlined.

Customer value analysis receives heavy emphasis in this respect. A solid understanding and quantification of customer value is a key to value delivery and value-based pricing. This understanding can suggest where to increase prices and where to launch new (premium) products while at the same time increasing sales and profitability. Customer value analysis is a tool which can be used to justify price increases to customers; customer value analysis is furthermore vital in the new product development process.

This paper also shows that a relentless focus on competitiveness has major drawbacks: instead of attempting to create and to communicate value to customers, companies risk paying an unjustified attention to current product features of competitors, regardless of whether these features meet customer requirements and truly create superior customer value.

Empirical research supports this claim: In a field study involving 20 US Firms over an extended period of time Armstrong and Collopy (1996) find that companies with a pure competitor-oriented strategy are less profitable and less likely to survive than companies with a strong customer orientation.

Differentiation from competitors does not per se add value. Differentiation might lead to a sustained investment in product features which do not add any value for customers. Product differentiation strategies have to be preceded by an understanding of the real sources of value for customers, which then will lead to appropriate positioning and pricing. Customer value analysis is a valuable tool even when products are relatively undifferentiated: in this case, insights in the way in which the product adds value can lead to ways to develop the product further and to position the product in ways which add value to customers.

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