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# Pricing Capability and Its Strategic Dimensions

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Lund, 2008-04-03

Niklas L. Hallberg



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# 1. Introduction

For those who, like myself, are inclined to be eclectic, no comprehensive commitment to one approach rather than another needs to be made. What is involved, rather, is the selection of the approach best suited to deal with the problems at hand. (Williamson, 1975:249)

The notion of pricing as being of vital importance to firms is supported by a long line of publications that outline recommendations on how price should be managed in order to maximize long-term profits (see for example Dolan & Simon, 1996; Nagle & Holden, 2002; Monroe, 2003; Marn et al, 2004). This implies that pricing, or firm level pricing capability, should constitute an important area of research in the field of strategic management, a field which has as its prime objective to develop explanations of firm performance. Yet, research on pricing capability in strategic management has remained sparse. Rather than addressing this area directly, firm pricing capability has been treated as a non-strategic issue. This is done either by assuming that prices are automatically set at levels reflecting competitive market prices and the product's value to customers, or by viewing price as an easily manageable part of the firm's overall competitive strategy.

Contrary to the assumptions about pricing stated above, this empirical study of pricing capability in five cases in the corrugated packaging industry illustrates the complexity and problems firms face when pricing their products. Examples of pricing-related problems that were identified in the study included: the complexity of keeping track of, and setting consistent prices for, up to 5000 different products spread across almost a thousand different customers, gaining relevant market and product related information in novel and highly idiosyncratic pricing situations, and controlling the personal discretion of employees involved in pricing decisions. The study showed, not only that pricing was difficult to manage, but also that in order to handle the information and control-related uncertainties inherent in pricing decisions, the studied business units committed themselves to complex configurations of assets, routines, activities, and pricing policies. This thesis sets out to

uncover the structure and strategic relevance of these configurations, and by doing so, to point out some fundamental problems in mainstream strategic management theory. As it turns out, the failure of this theory in addressing the strategic dimensions of pricing capability is not arbitrary, but reflects a theoretical gap that leaves established explanations of firm performance unable to account for important phenomena, such as pricing capability.

## 1.1 Pricing capability and explanations of firm performance

During the past decades, explanations of firm performance in strategic management have varied across several different research paradigms: the competitive forces approach, the strategic conflict approach, and the resource-based view (Teece et al, 1997).

Originating in industrial organization (IO) economics (Bain, 1956), the competitive forces approach (Porter, 1980) and the strategic conflict approach (Shapiro, 1989) explain variations in firm performance based on the individual firm's ability to outmaneuver rivals on the product market, thus creating an industry position where monopoly rents<sup>1</sup> can be captured. Hence, performance is seen as a consequence of the successful strategizing of industry players in what can be characterized as a zero-sum game where structural industry factors and product market actions determine the portion of the total industry surplus appropriated by each individual firm.

The resource-based view (RBV) (Wernerfelt, 1984; Dierickx & Cool, 1989; Barney, 1991; Peteraf, 1993) attributes performance differentials to immobile and heterogeneous resources that have intrinsically different levels of efficiency (Peteraf, 1993). Hence, some resources are superior to others in that they allow the firm to produce at a lower economic cost or provide products with a higher perceived benefit (Peteraf

---

<sup>1</sup>Generally, economic rent refers to "[...] a payment for a factor in excess of that minimally necessary to call forth its services" (Lippman & Rumelt, 2003:904). Excess payments to scarce and superior (more efficient) factors are termed Ricardian rents. Excess payments resulting from a deliberate restriction of output (supply) are termed Monopoly rents.

& Barney, 2003). In equilibrium, firms with marginal factors will perform at break-even while firms with superior resources can earn economic rents.

As illustrated by the difference between the competitive forces-/strategic conflict approaches and the RBV regarding the predicted type of performance effect and the type of dependent variables investigated, the field of strategic management can be sorted under two general headings: strategizing and economizing (Williamson, 1991). The first appeals to power, bargaining and the ability of economic actors to appropriate economic value; the second is principally concerned with efficiency and the creation of superior economic value.

The RBV is an efficiency-oriented explanation of performance in that it explains the creation of economic value, but not how this value is appropriated by different economic actors (Peteraf & Barney, 2003).<sup>2</sup> This stands in contrast to the perspective embodied in frameworks such as Porter's (1980) competitive forces. Porter (1980) portrays firm performance as an issue of value appropriation, which is an effect of the bargaining power of different economic actors (Porter, 1991). That is, the dependent variable (profit) is primarily determined by how the firm is affected by structural industry factors external to the firm, such as internal rivalry, buyer and supplier bargaining power, substitutes and threat of entry (Porter, 1980). Hence, the RBV and the competitive forces approach address value creation and value appropriation, respectively. The predominance of these two research paradigms in strategic management has linked value creation to the notion of firm resources and capabilities, while value appropriation has been associated with structural industry factors. In conclusion, explanations of firm performance cluster around the two specific research positions outlined above, which presents a theoretical gap in mainstream strategic management research. The argument is illustrated in Figure 1.1.

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<sup>2</sup>Following critical remarks by Foss & Knudsen (2003) regarding the proper necessary conditions for sustained competitive advantage in the RBV, this point is particularly emphasized by Peteraf & Barney (2003) in an attempt to clarify the position taken in their respective earlier papers (i.e. Barney, 1991; Peteraf, 1993).

	Industry	Firm resources & capabilities
Value creation	A	B
Value appropriation	C	D

Figure 1.1 Modes of explaining firm performance.

Figure 1.1 displays the two main dimensions on which contemporary modes of explanation are contrasted. The horizontal axis refers to the main unit of analysis and the type of independent variable investigated. The vertical axis refers to the predicted type of performance effect and the type of dependent variable investigated. According to the two dimensions outlined above, four different positions emerge (A-D). *Position A* includes industry-level and efficiency-based explanations of firm performance.<sup>3</sup> *Position B* includes firm-level and efficiency-based explanations of firm performance, such as the RBV (Peteraf & Barney, 2003). *Position C* includes industry-level and bargaining-based explanations of firm performance, such as Porter's (1980) competitive forces framework. Finally, *position D* includes firm-level and bargaining-based explanations of firm performance.

In essence, Figure 1.1 points to the fact that, due to the firm-level/value creation vs. industry-level/value appropriation dichotomy in traditional RBV and IO theorizing, established explanations of firm performance fail to cover important areas represented by position D (and A). This presents a theoretical gap in mainstream strategic management research that leaves established explanations of firm performance unable to explain important phenomena most properly placed within the boundaries of these positions. One such phenomenon is pricing capability. The theoretical position adopted by IO and RBV seems to suggest that pric-

---

<sup>3</sup>Position A refers to explanations of firm performance placing the locus of value creation outside the firm. While sparsely researched, this position is not the prime focus of this thesis. Examples of explanations that could fit this position are *network externalities* (Katz & Shapiro, 1985), *co-creation of value* (Thomke & von Hippel, 2002), and *community driven value creation* (Chesbrough & Appleyard, 2007).

ing capability is not a strategically relevant factor in itself, but rather something that is jointly determined by firm-level efficiency factors (resources & capabilities) in the first step, and by industry-level bargaining factors (industry structure) in the second step. This notion of firm pricing capability as a non-strategic factor would be highly inconsistent with the picture presented in the literature dealing specifically with pricing or price management (see Nagle & Holden, 2002; Dolan & Simon, 1996; Monroe, 2003; Marn et al, 2004), or just the common sense notion that firms could be making consistently good or bad pricing decisions because of differential levels of pricing capability. Hence, the lack of clarity in contemporary strategic management theory regarding how value appropriation is affected by the firm's internal endowment of particular resources and capabilities (position D in Figure 1.1) is manifested by the difficulties of developing a proper understanding of pricing capability.

One of the few existing empirical studies on pricing capability has been conducted by Dutta, Zbaracki, & Bergen (2003). Based on an ethnographic single-case study of a large manufacturing firm, Dutta et al (2003) argue that pricing capability is of strategic relevance in that it enables the firm to set correct prices. Hence, pricing capability allows the firm to appropriate economic value created by other firm resources and capabilities by setting prices that better match the perceived benefit of the product sold and demand characteristics in the focal market. Contrary to neoclassic economic theory and marketing theory, the development of an effective pricing process (i.e. setting, changing and negotiating prices) was shown to be time-consuming, costly and complex with significant organizational and informational barriers restricting the process. Further, Dutta et al (2003) found that the development of pricing capability at the studied firm involved complex organizational and social components that evolved over long time periods, thus making pricing capability difficult to transfer or imitate.

The pricing capability at the company studied by Dutta et al (2003) was shown to consist of particular routines, coordination mechanisms, systems, skills, and complementary resources, that enabled five different activities differentiated either as *price-setting capability within the firm* (identifying competitor prices, setting pricing strategy, translation from pricing strategy to price) or *price-setting capability vis-à-vis customers*

(convincing customers on the price change logic, negotiating price changes with major customers).

The study by Dutta et al (2003) highlights important organizational restrictions that firms face when setting prices. As pointed out above, these organizational restrictions on firm's ability to readily set and change prices have not been sufficiently acknowledged within mainstream strategic management theory, economics or marketing. By adopting a theoretical perspective based on insights from the behavioral theory of the firm (Cyert & March, 1963) and more recent research on organizational capabilities (Winter, 2000), Dutta et al (2003) are able to empirically illustrate how particular pricing outcomes are a result of the firm's heterogeneous and immobile endowments of particular routines, coordination mechanisms, systems, skills, and resources. Moreover, although limited to a particular company, the study also presents empirical evidence concerning potentially important components of pricing capability, thus highlighting the complex interaction between various routines and assets in enabling activities related to market intelligence, development and implementation of pricing strategy, market communications, and customer negotiation.

Although the study by Dutta et al (2003) presents important and novel ideas regarding how pricing can be viewed from a strategic perspective, it also raises a set of important questions that are not addressed or explicated. First, the single-case study research design raises questions regarding the extent to which pricing capability differs across firms operating in different business environments. Differences in a firm's product offer, production process, type of customers served, and competition, naturally influence the viability of particular pricing practices, and thus pricing capability. Second, the study raises several questions regarding the definition and relationship between concepts, such as routines, coordination mechanisms, systems, skills, resources, and activities. Hence, it does not provide definitions of key concepts, nor does it provide an adequate account of how the use of concepts should be understood in relation to the theoretical antecedents in the capability and RBV literature. Third, the study lacks a clear theoretical problem statement that positions results with regard to established explanations of firm performance in strategic management, such as the RBV or IO. Thus, the particular theoretical gap that the study addresses remains

largely implicit. In other words, empirical results of the study are not explicitly conceptualized, analytically generalized or related to a broader notion of pricing capability and strategic management theory. As a result, the precise theoretical contribution of the study remains ambiguous.

Summarizing the review of Dutta et al (2003), it is argued that the conclusion that pricing capability is a strategically important resource, which can lead to a sustained competitive advantage, seems to go against the very notion of RBV as an efficiency-oriented explanation of firm performance. Hence, despite the results of Dutta et al (2003), it is rather unclear how such an organizational capability should be understood in relation to the established explanations of firm performance outlined in Figure 1.1.

The theoretical gap outlined above presents an opportunity for studying pricing capability as an instance of the broader issue of how value appropriation relates to factors internal to the firm. Drawing on the suggestion of Dutta's et al (2003) that firms should not only concern themselves with the type of value creating resources and capabilities normally investigated in the RBV, but also consider factors affecting value appropriation, one of the objectives of this thesis is to address the issue of how internal resources and capabilities, such as a pricing capability, can influence the extent to which firms are able to appropriate created value. In relation to the contribution made by Dutta et al (2003) this involves the following: broadening the empirical scope of the study of pricing capability to include several cases in different settings, explicating the theoretical problem of why established explanations of firm performance in strategic management fail to explain the strategic dimensions of pricing capability, providing a conceptual framework of pricing capability that integrates research on organizational capabilities with pricing research, and finally, outlining the particular dimensions governing the functional relationship between pricing capability elements and firm performance.

## 1.2 Theoretical orientation of the thesis

This thesis addresses the intersection of strategic management and pricing by the use of organizational capabilities as an integrating concept.



This orientation is primarily driven by the theoretical gap in mainstream strategic management theory illustrated in Figure 1.1, and the current lack of rigorous research on the strategic implications of the internal organization of pricing. An obvious theoretical starting point for this study is the prior research on organizational capabilities and pricing. This section proceeds by providing an introduction to the respective field of organizational capabilities and pricing. In addition, alternative theoretical perspectives are discussed and theoretical delimitations explicated.

### 1.2.1 Organizational capabilities

To be capable of something is to have a generally reliable capacity to bring that thing about as a result of intended action. Capabilities fill the gap between intention and outcome, and they fill it in such a way that the outcome bears a definite resemblance to what was intended. (Dosi et al, 2000:2)

According to Dosi et al (2000:3), the term organizational capabilities “...floats in the literature like an iceberg in a foggy Arctic sea, one iceberg among many, not easily recognized as different from several icebergs nearby”, appearing in literature on strategic management, evolutionary economics, technology, and business history. In strategic management, capabilities particularly border on such concepts as dynamic capabilities (Teece et al, 1997), core competence (Prahalad & Hamel, 1990), combinative capabilities (Kogut & Zander, 1992) and competence (Sanchez et al, 1996).

An early occurrence of the term capability is in Richardson (1972), noting that “[...] activities have to be carried out by organizations with appropriate capabilities, or, in other words, with appropriate knowledge, experience and skills.” (Richardson, 1972:888). A second seminal occurrence of organizational capabilities is in evolutionary economic theory (Nelson & Winter, 1982). This theory has emerged as an alternative to, and critique of, neoclassical economic theory. The main critique of evolutionary economics centers around the neoclassical treatment of firms as homogeneous and the view that “[...] firms face given and known choice sets (constrained for example by available technologies) and have no difficulty in choosing the action within those sets that is the best for them, given their objectives (generally assumed to be as

much profit as possible).” (Nelson, 1991:64), a position that according to Nelson (1991) results in the view that firm behavior is mainly determined by the conditions they face. Contrary to neoclassical economic theory, Nelson & Winter (1982) posit that firms are in fact intrinsically different and that this difference matters in how they behave. This inter-firm difference is represented by heterogeneous organizational routines, which are the main building block of firm-level organizational capabilities. Routines are seen as the most important form of storage of a firm’s operational knowledge, implying a logic by which firms remember, or learn, by doing rather than, as in neoclassical economic theory, make a deliberate choice, *ex ante*, of what hypothetical capability to activate in a given situation. Routines are seen as skills residing in the organization, drawing on the analogy of an individual person’s skills. The concept of routine is thus used in a broad sense referring to what the firm is capable of doing, but also, what the firm is doing, hence, referring to a “[...] repetitive pattern of activity in an entire organization, to an individual skill, or, as an adjective, to the smooth uneventful effectiveness of such an organizational or individual performance.” (Nelson & Winter, 1982:97).

Other early definitions of organizational capabilities are offered by Grant (1991) and Amit & Schoemaker (1993). Grant (1991:119) defines organizational capability as “[...] the capacity for a team of resources to perform some task or activity.” Organizational capabilities are viewed as consisting of teams of resources working together under the coordination of organizational routines. According to Amit & Schoemaker (1993:35) organizational capabilities “[...] refer to a firm’s capacity to deploy Resources, usually in combination, using organizational processes, to affect a desired end.”

As shown above, although using different terminology, definitions of organizational capabilities tend to include some notion of repetitive activity, such as routines, as a prime building block.<sup>4</sup> As is also evident in the definitions offered above, capabilities are goal-oriented in the sense that they enable achievement of organizational objectives. Further, ca-

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<sup>4</sup>A more complete review of the literature on organizational capabilities is conducted in section 2.2.

pabilities relate to, or include, other resources such as tangible or intangible assets.<sup>5</sup>

## 1.2.2 Pricing

Contemporary pricing research is multifaceted containing several different perspectives and topics. Table 1.1 shows a sample of topics identified in contemporary pricing literature.

Table 1.1 Sample of contemporary pricing topics.

Pricing topic	Publication
1. Problems and opportunities in pricing	Morel et al, 2003; Lancioni, 2005a
2. Factors influencing price	Tellis, 1989
3. Optimal pricing policies	Lee & Staelin, 1997; Dasgupta & Titman, 1998; Krishnan et al, 1999
4. Costing and cost-based pricing practices	Banker & Hughes, 1994; Pavia, 1995; Alles & Datar; 1998
5. Behavioral/psychological aspects of pricing and its organization	Urbany, 2001; Estelami & Maxwell, 2003; Lancioni et al, 2005
6. Pricing strategies and their determinants	Tellis, 1986; Chia & Noble, 1999; Noble & Gruca, 1999; Forman & Lancioni, 2002; Forman & Hunt, 2005
7. Pricing objectives and market characteristics	Duke, 1994; Avlonitis & Indounas, 2004
8. Tools for value-based pricing	Thompson & Coe, 1997
9. Approaches to service pricing	Tung et al, 1997
10. Practical price management tools and guidelines	Davey et al, 1998; Simon & Butscher, 2001; Gjaja et al, 2003; Marn et al, 2003; Lancioni, 2005b; Laseter & Weiss, 2005
11. Strategic pricing capability	Urbany, 2001; Vogel et al, 2002; Dutta et al, 2002; Dutta et al, 2003; Richards et al, 2005
12. Descriptive empirical studies of pricing practice	Carson et al, 1998; Cohen, 1999; Fabiani et al, 2007
13. Multi-topic textbooks on pricing	Dolan & Simon, 1996; Nagle & Holden, 2002; Monroe, 2003; Marn et al, 2004

Consultants at the Boston Consulting Group (Morel et al, 2003) outline what they see as some of the core pricing problems facing managers

<sup>5</sup>One example of this, offered by Dosi et al (2000), is a marketing capability that in addition to certain routines requires the use of a customer data-base.

today. First, because of a strong cost focus and short-sightedness, managers underestimate their power to manage pricing and thus tend to accept current industry levels, instead focusing their efforts on other areas such as cost reductions, productivity and sales growth. This is a practice that according to Morel et al (2003) leads to a significant difference between firm prices and what customers are actually willing to pay.

According to Morel et al (2003), price can in fact be managed if the right measures are taken in the organization. Key challenges for firms in capturing this value revolves around the firms understanding of market demand/price elasticity (customer behavior), being able to effectively discriminate prices according to customer segments through price structures that elicit each segments full willingness-to-pay, and effective communication of the value of the customer offer. Second, due to discount programs that are uncoordinated and different parts of the organization striking individual deals with customers, firms have no control over what prices customers actually pay for products and services. The problem arises because firms lack accurate systems and hence data for tracking and controlling discounts and negotiated prices, and due to the fact that firms often fail in controlling people in different parts of the organization that have impact on what price that is actually charged. Third, as implied above, pricing involves many people in the selling organization, but formal authority is often unclear. Because of the lack of senior management involvement, pricing is seen as a tactical rather than a strategic variable. This prevents firms from seeing the financial and strategic lever that pricing can constitute if managed correctly.

As indicated above by Morel et al (2003), one problem that managers face is getting beyond the notion that price is not directly manageable. There seem to be several internal and external factors that are important for the successful pricing of products. Cost-plus profit pricing is the most common pricing method (Noble & Gruca, 1999). This would indicate that for firms using this method, product costing will have a significant impact on prices. The effect on profit of how costs are allocated has been addressed in a study by Pavia (1995) who illustrates how the common practice of allocating a part of non-traceable overhead costs to all of the firm's products can often be suboptimal and contin-

gent on different organizational motives (such as fairness, etc.). The organizational (i.e. behavioral/psychological) aspects of pricing are suggested by Urbany (2001) as a potential explanation of why firms price in ways which are not economically optimal. Examples of such behavior are: cost-driven pricing, pricing for maximization of market share rather than profits, pricing decisions that do not take competitor action into consideration. Urbany (2001) uses the concept of decision accountability to explain this phenomenon, stating that people in an organizational or social context make decisions that can be justified towards other people, turning more ambiguous decision-criteria such as profit projections, likely competitor actions, customer perceptions into rather unattractive sources of justification compared to less ambiguous criteria (for example costs). Another important aspect related to the organization of pricing are the intra-organizational factors that govern communication and perceptions among managers involved in pricing. Lancioni et al (2005) address this from a political economy perspective showing that political issues within the organization are crucial for the development and implementation of a successful pricing strategy. The results of the study illustrated the importance of handling these organizational issues related to departmental politics and culture in order to remove what the authors call “roadblocks to the price-setting process”.

Contrary to the internal or organizational pricing issues addressed by Urbany (2001) or Lancioni et al (2005), pricing has traditionally been viewed from an external product market perspective. Pricing can from this perspective be seen as a process of choosing an appropriate pricing strategy given industry and product characteristics. Building on the taxonomy of pricing strategies presented by Tellis (1986), pricing strategy has been empirically addressed in industrial markets by Noble & Gruca (1999), in the context of international markets by Forman & Lancioni (2002), and as a comparison of pricing strategies in different countries by Chia & Noble (1999). The concept of pricing strategy has been defined as “[...] a reasoned choice from a set of alternative prices (or price schedules) that aim at profit maximization within a planning period in response to a given scenario.” (Tellis, 1986:147). According to Noble & Gruca (1999), pricing strategy refers to how the firm will address its pricing objectives and thus the means by which a pricing objective is to be achieved. Hence, a certain pricing strategy will imply a certain price or price schedule relative to the costs of the selling firm. The choice of

pricing strategies is, as stated above, seen as contingent on certain conditions, termed determinants, which implies that a firm's degree of success in pricing is determined by whether chosen pricing strategies are properly adapted to the conditions facing the firm.

According to the definition of pricing strategy offered by Noble & Gruca (1999), pricing objectives play an important role in the development of pricing strategies. Pricing objectives have been addressed by Avlonitis & Indounas (2004) in an empirical study of service firms. The study showed that customer-related objectives such as "customers' needs satisfaction", "attraction of new customers", "long-term survival", "quality leadership", "creation of a prestige image for the company" and "cost coverage" were important regardless of type of market. Although conducted in a specific setting (service firms), the study shows an interesting tendency of firms in the sample to adhere to pricing objectives other than "profit maximization" (which came fourteenth), which is normally adopted as the generic objective of firms. This shows the ambiguity that seems to reside in firm's pricing objectives, a fact that must be seriously considered when designing pricing strategies, which are assumed to lead to specific objectives (see, for example, Duke, 1994, for a matrix that tries to align company objectives, competitive situation, customer characteristics and appropriate pricing alternatives).

In addition to some of the main topics in pricing discussed above, there is a wide variety of articles on specific tools or instruments intended to aid managers in pricing decisions. For example; Gjaja et al (2003) introduces what they call "Profit parabolas" as a tool for managers for finding the profit maximizing price given the trade-offs created by customer price-sensitivity (price elasticity), competitive pressure and value chain economics. Lancioni (2005b) argues for the use of a "pricing plan" to encourage firms to commit to a certain set of objectives, an operational strategy and control procedures. Simon & Butscher (2001) argue for individualized pricing or price customization as a main tool in increasing profit through pricing, basically using the opportunity to charge different customers different prices depending on their individual willingness-to-pay. Although the articles above deal with slightly different topics, the ideas presented require that the selling firm develops procedures for gathering and actively using a common set of information: the value customers place on the product, the customer's price

elasticity, the product's cost structure under different volumes, and the impact of logistics and organization.

Developing specific pricing procedures borders on the topic of the development of a pricing capability. Vogel et al (2002) argue that such a capability should be developed by taking measures in four key areas: a) Structure and responsibilities, b) Policies and processes, c) Incentives and compliance, and d) Platforms and tools. Richards et al (2005) outline a strategic pricing capability as building on elements such as: a) Talent (technical pricing expertise, knowledge of firm strategy, training program), b) Strategic management process (linkage to strategic decisions, focus on price position relative to competitors), c) Roles and decision rights (elevated role for pricing managers, redefined expectations of senior management), d) Information and technology (understanding of customer attitude, behaviors and economics; decision support information), and e) Mindset and culture (senior management role models, common language and standards, new definition of "success"). Based on three cases, Urbany (2001) identifies five "common threads" that can be viewed as elements of a corresponding pricing capability: a) Data and feedback, b) Segmentation logic and the courage to let customers go, c) Focus on the sales force, d) Higher order thinking skills, and e) Commitment and configuration. And finally, Dutta et al (2002) argue that a strategic pricing capability needs to be built on the investments in three specific areas: a) Human capital, b) Systems capital, and c) Social capital.

As shown above, the type of problems and solutions highlighted in the pricing literature revolve around a quite common set of issues. Together they indicate that pricing, despite the tendency among managers to underestimate the firm's possibility of influencing prices, is seen as problematic, but manageable if the right measures are taken. These measures include: the incentives and organization of the people involved in the pricing process, processes for collecting market and cost information, facilitating an effective interaction with customers, the development of pricing strategy, investments in proper systems or tools to aid decision-makers, and involving people with proper skills.

### 1.2.3 Other theories and delimitations

There are in addition to the capability-perspective developed in this thesis also a number of other perspectives from which pricing could be studied. Probably the most evident alternative explanations of how firms organize market transactions (including pricing) can be found in the literature on economic organization (e.g. Coase, 1937; Williamson, 1971; Alchian & Demsetz, 1972; Williamson, 1975; Jensen & Meckling, 1976; Holmstrom & Milgrom, 1994, etc.) and in the literature on industrial network marketing (IMP Group, 1982; Turnbull et al, 1996). Pricing also constitutes an important part of marketing management as a component of the marketing mix (e.g. Kotler & Armstrong, 1996) and is often addressed as a potential application of product costing in the management accounting literature (e.g. Horngren et al, 2002).

There is an obvious link between the price management literature, which is used in this thesis for developing the substantive elements of pricing capability, and the broader field of marketing management. Although particular insights from the marketing and price management literature have proved to be useful in the respect stated above, it is important to note the difference between viewing pricing as an organizational capability or as a discrete marketing activity. In short, this difference arises from the basic propositions of the RBV and research on organizational capabilities, which state that firm resources and capabilities are heterogeneous, immobile, and at a fundamental level determine what particular activities and strategies are available to a firm at a given point in time. Hence, the theoretical position that is developed in this thesis outlines pricing capability as a strategic concept that is the result of idiosyncratic historical trajectories and investments made by the firm over time. Thus, in a way not discussed in the marketing-/price management literature, the concept of pricing capability provides an answer to the question of how sustainable comparative advantages in the field of pricing are developed.

The particular relationship between the concept of pricing capability and theories of economic organization is at present inadequately researched and could provide opportunities for establishing a better understanding of the theoretical position of pricing capability relative to established explanations of firm performance (see Figure 1.1). Coase's



(1937:390) seminal article on economic organization stated that the “[...] main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism.“. Further, Coase (1937) specifies this cost of using the price mechanism as including costs associated with discovering relevant (market) prices, negotiating, and setting up contracts between buyer and seller. Hence, the type of market transaction costs that Coase (1937) highlights as important for the formation of firms bears close resemblance to the type of costs associated with investments in pricing capability.

In line with Coase’s (1937) original argument, transaction cost economics (Williamson, 1971; 1975) have gone further in the characterization of market transaction attributes and the institutional setting in which market transactions occur (along the main dimensions of asset specificity, uncertainty and frequency). Thus, transaction cost economics points out some of the circumstances under which value capture attempts by either the seller or the buyer are likely to be successful if proper safe guarding mechanisms are not implemented. Relating these observations to the notion of pricing capability one might argue that these are also the circumstances under which individual firms (or sellers) would have the most to gain from a superior pricing capability. While this thesis does not aim at integrating the RBV or the concept of organizational capabilities with theories of economic organization (see Foss & Foss, 2004; Foss & Foss, 2005; Argyres & Mayer, 2007), such integration constitutes an area for further inquiry that could further strengthen the understanding of pricing capability.

In conclusion, adopting a strategic management perspective on pricing by use of the concept of organizational capabilities carries with it a number of delimitations relative to other fields. First, the marketing-/price management literature will be used to develop substantive elements of pricing, while acknowledging the key differences in theoretical perspective briefly discussed above. Second, although costing practices do affect the pricing of many firms, these practices are sufficiently covered in the marketing-/price management literature and in basic economic theory. Hence, this thesis does not develop an explicit cost accounting perspective on pricing. Third, while theories of economic organization (and the IMP model) could potentially contribute to the understanding of the theoretical problem posited in this thesis, they are

at present not well integrated with mainstream strategic management theory and the concept of organizational capabilities. Because performing such integration is well beyond the scope of this thesis, these fields will not be further addressed in the theoretical framework developed in this thesis.

### 1.3 Aim of the thesis

The problem posited in this thesis relates both to the general characteristics of strategic management theory and its ability to explain the existence of pricing capability, and the particular content of such an organizational capability. As stated in section 1.2.1, organizational capabilities are thought of as composite constructs consisting of routines and assets operating together to achieve some organizational objective. Alongside the concept of organizational capabilities, the literature review in section 1.2.2 introduced basic attributes of contemporary pricing research. Using organizational capabilities as an organizing concept, these attributes of pricing will be developed in subsequent chapters to produce a preliminary pricing capability framework<sup>6</sup>. The framework will then be empirically examined and contrasted with pricing practices in five empirical cases to potentially extend or reformulate it according to empirical findings. Thus, *the aim of the thesis is to develop the concept of pricing capability and explore the mechanisms connecting such a capability with firm performance*. Illuminating this issue empirically and theoretically not only provides increased understanding of the nature of pricing and the concept of pricing capability, but also outlines how the relationship between value appropriation and firm endowments can be understood in relation to established theory in strategic management.

### 1.4 A case-study in corrugated packaging industry

The empirical study follows a case-study research design (Yin, 2003; Eisenhardt, 1989), which was chosen in order to best facilitate the explorative and theory developing ambition of the thesis. The study was carried out in the European corrugated packaging industry as part of an

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<sup>6</sup>See Porter (1991) for a discussion about the use of frameworks in strategic management research.

ongoing learning partnership with SCA Packaging (SCAP)<sup>7</sup>. During 2004 and 2005, pricing capability and related contextual factors were studied in five different SCAP business units (cases) situated in five European countries. Given the practical constraints of gaining access, cases were chosen in order to provide a rich variety of different pricing practices.

The fact that all studied units operated in the European corrugated packaging industry to some extent delimits the empirical scope of the study. The particular industry in which the study was conducted (characterized by business-to-business transactions, per sale pricing and customization) naturally affects the result of the empirical study and the extent to which results can be generalized to other types of industries. However, although specific empirical results primarily apply to the European corrugated packaging industry and comparable industries, conclusions related to the concept of pricing capability, and the mechanisms by which such a capability affects firm performance, are of general relevance.

## 1.5 Disposition of the thesis

*Chapter 1* introduces the concept of pricing capability and the problem of defining and linking such a concept to established explanations of firm performance in strategic management.

*Chapter 2* outlines a theoretical framework for understanding organizational capabilities in terms of performance enhancing effects, structure, and firm-/industry level interaction.

*Chapter 3* provides a review of prior research and theory on pricing thus introducing substantive elements to the capability framework outlined in the previous chapter. The chapter ends with the presentation of a preliminary pricing capability framework.

*Chapter 4* discusses limitations of economic agency and posits consequences in terms of market outcomes.

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<sup>7</sup>See section 5.1 for further details about the learning partnership and section 6.1 for details about SCAP and the European corrugated packaging industry.

*Chapter 5* introduces the context in which the empirical study was conducted, the research design, data sources, and data analysis methods.

*Chapter 6* introduces five empirical cases in the corrugated packaging industry and provides an analysis of the empirical data based on the preliminary pricing capability framework.

*Chapter 7* presents the main empirical results, outlines a revised pricing capability framework, and proposes a new way in which the relationship between pricing capability and firm performance can be understood relative to established explanations in strategic management.

*Chapter 8* summarizes the main results and theoretical contribution, discusses its implications, and suggests avenues for further research.



## 2. Strategic relevance, structure and dynamics of organizational capabilities

This chapter outlines a theoretical framework for understanding organizational capabilities in terms of performance effects, structure, and industry interaction.

### 2.1 Creating, sustaining and appropriating economic value

Perhaps the most fundamental question in strategic management is how economic value differentials (economic rents) are created, sustained and appropriated by different economic actors. This section addresses this issue by evoking two related sets of literature: the RBV and the bargaining literature.

#### 2.1.1 Creating and sustaining economic rent – The resource-based view

As discussed briefly in Chapter 1, the RBV attributes performance differentials to immobile and heterogeneous resources and capabilities with intrinsically different levels of efficiency (Peteraf, 1993), allowing some firms to produce at a lower economic cost or provide products with a higher perceived benefit (Peteraf & Barney, 2003).

The RBV is often dated back to the work of Penrose (1959) and her description of the firm as a collection of heterogeneous productive resources. A second early, and in later work influential, occurrence of resources as an important unit of analysis for understanding firm performance can be found in Caves (1980). Caves (1980: 65) described the firm as resting on "[...] contractual relations that unite and coordinate various fixed assets or factors, some of them physical, others consisting of human skills, knowledge, and experience - some of them

shared collectively by the managerial hierarchy. These factors are assumed to be semi permanently tied to the firm by re-contracting costs and, perhaps, market imperfections.”. According to Caves (1980), an implication of this is that the firm conducts its strategic planning as to maximize rents to its fixed assets. Thus, firm success is seen as determined by the efficiency and complementarities between firm assets.

Building on Caves’ (1980) definition of fixed assets, the benefits of analyzing firms, and firm performance, from the resource side rather than from the product market side were further elaborated on by Wernerfelt (1984). According to Wernerfelt (1984), the returns that resources generate are dependent on three factors: the competitive characteristics of the factor market where the resource is acquired, the competitive characteristics of the market in which the products resulting from the use of the resource are sold, and the availability of substitute resources. Further, attractive resource positions can under certain circumstances be protected by what Wernerfelt (1984) terms resource position barriers. Through raising the cost of later acquirers, resource position barriers enable holders of attractive resources to maintain benefits over time. Hence, resource position barriers cement the lead of the “first-mover” towards a certain position.

As indicated by Wernerfelt (1984), the competitive characteristics of the factor markets in which resources are acquired are important to whether the returns to a resource will be competed away. Following the contributions of Caves (1980) and Wernerfelt (1984), Barney (1986) introduced the concept of strategic factor markets arguing that if factor markets are perfect, the cost of acquiring a specific resource will offset any future superior rent earning capacity associated with the acquired resource. However, according to Barney (1986) strategic factor markets will be imperfectly competitive under the condition that different firms have different expectations of a resource’s future value (i.e. due to the superior information of some firms). Hence, a firm’s ability to attract economic rents is dependent on the level of information it possesses about the future value of resources (Makadok & Barney, 2001).

Based on Barney’s (1986) notion of strategic factor markets, Dierickx & Cool (1989) questioned whether all required assets to implement a strategy can be bought and sold in markets. There are according to Dierickx & Cool (1989), indications that the implementation of strat-

egy requires highly firm-specific assets that are not tradable, which means that necessary idiosyncratic resources have to be accumulated internally. Further, even though the types of assets that are tradable in strategic factor markets can be analyzed with the framework suggested by Barney (1986), these are not likely to generate economic rent precisely because they are tradable.

According to Dierickx & Cool (1989), factor markets are not complete due to the fact that some factors are not traded on open markets. Because these factors are also the most interesting from a competitive point of view, a complementary framework to address non-tradable factors is outlined. The framework is built on the following propositions:

- If a firm does not own a non-tradable asset, which is required for the implementation of a product market strategy, it is constrained to building this asset internally.
- Strategic asset stocks are accumulated by choosing an appropriate asset flow over a period of time (thus asset stock and asset flow are conceptually separated).
- Asset flows can be adjusted instantly; stocks cannot, as they are the accumulated flows over a period of time.
- A critical or strategic asset stock is one that is non-tradable, non-imitable and non-substitutable.
- The process by which the asset stock is accumulated governs the non-imitable criterion.

Dierickx & Cool (1989) characterizes five different asset stock accumulation processes that prohibit imitation: time compression diseconomies, asset mass efficiencies, interconnectedness of asset stocks, asset erosion, and causal ambiguity. Hence, the framework explains why assets that are accumulated or built internally are, under certain circumstances, not likely to be imitable.

Another example of an attempt to understand the sources of sustained competitive advantage is suggested by Barney (1991). The assumption underlying the article is that firms within an industry or industry group may be: (A) heterogeneous regarding the strategic resources they control, and (B) that these strategic resources are not perfectly mobile. Barney (1991:101) defines resources as including “[...] all assets, capa-



bilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness [...] In the language of traditional strategic analysis, firm resources are strengths that firms can use to conceive of and implement their strategies". Two key terms in Barney's terminology are competitive advantage and sustained competitive advantage. Barney (1991:102) states that "[...] a firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors.", while a "[...] firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy."

Given the assumptions that strategic resources are heterogeneous across firms and that these resources are not perfectly mobile, Barney (1991) states that a firm resource can hold sustained competitive advantage given that the resource is valuable in the sense that it exploits opportunities and/or neutralizes threats in a firm's environment, rare among the firm's current and potential competition, imperfectly imitable, and that there are no strategically equivalent substitutes for the resource. The framework suggested by Barney (1991) complements prior models of the rent generating capacity of firm controlled resources. It specifically addresses Dierickx & Cool (1989) on the issue of imitability, stating that firm resources are imperfectly imitable for one or more of three reasons: (a) the acquirement of a resource is dependent on a unique historical condition, (b) the link between the resource and performance is causal ambiguous, or (c) the resource is socially complex.

Peteraf (1993) suggests a slightly different model than that of Barney (1991) to explain the relationship between firm resources and sustained competitive advantage. The basic proposition of Peteraf's model is, as in the case of Barney (1991), that resources are heterogeneous. Peteraf (1993) describes this heterogeneity as productive factors in use having "[...] intrinsically differential levels of 'efficiency.'" (Peteraf, 1993:180), meaning that some resources are superior to others in that they allow some firms to produce at a lower economic cost or provide higher customer benefit. Hence, in equilibrium, firms with marginal factors will

perform at a break-even level, while firms with superior factors can earn economic rents.

Peteraf (1993) structures her model of competitive advantage on four cornerstones or criteria from which a resource's potential for holding sustained competitive advantage can be evaluated. These criteria are: (1) *Heterogeneity*, (2) *Ex post limits to competition*, (3) *Imperfect mobility*, and (4) *Ex ante limits to competition*.

(1) *Heterogeneity* reflects the scarcity or inelastic supply of superior resources. The heterogeneity criterion is necessary, but not sufficient, for sustained competitive advantage. According to Peteraf (1993), resource heterogeneity enables Ricardian and monopoly rents.

If the heterogeneity criterion is to be preserved there is also a need for (2) *Ex post limits to competition*, which means that there must be forces restricting the competition for a superior factor position and accompanying economic rents so that, for example, the supply of the scarce factor is not increased. RBV research has so far mainly focused on two types of *ex post* limits to competition, imperfect imitability and imperfect substitutability (see Barney, 1991; Dierickx & Cool, 1989).

The third criterion in Peteraf's (1993) model is (3) *Imperfect Mobility*, which suggests that the factor cannot be traded (see Dierickx & Cool, 1989): (a) when they are specialized to firm-specific needs so that they are more valuable when deployed by the firm than elsewhere, (b) when the factor is co-specialized (with complementary factors) so that its value is higher when deployed in conjunction with other factors, or (c) when there are significant transaction costs associated with the transfer of the factor. Hence, imperfect mobility prevents the resource from being reallocated (or payments to the resource being bid up) or the economic rent from being offset by the opportunity costs of holding the resource in its present use.

The final criterion in Peteraf's (1993) model of sustained competitive advantage is (4) *Ex ante limits to competition*. Relating to Barney's (1986) concept of strategic factor markets, Peteraf (1993) states that rents will be offset by the cost of acquiring the factor unless there are imperfections in the factors market where the resource is acquired.

This relates to Barney's (1986) point that superior rents will only be earned if firms have superior information or are lucky.

This section has outlined how sustained economic value differentials, or economic rents, arise as a result of heterogeneous and immobile firm resources. The term a "resource" is here, in line with, for example, Caves (1980) or Barney (1991), given an initial wide and inclusive definition, basically denoting all internal factors controlled or semi-permanently tied to the firm, thus leaving room for elaborating more specifically on the nature of organizational capabilities as a special form of a composite resource.

### 2.1.2 Appropriating economic value – A bargaining perspective

The RBV, as briefly reviewed above, addresses the generation and sustainability of economic value differentials created by valuable and scarce resources. However, it does not give an explicit or consistent account of how this value is distributed or appropriated by different firms or stakeholders. With the exception of studies investigating the impact of industry structure (Porter, 1980) and intra-firm stakeholders' bargaining power (Coff, 1999; Blyler & Coff, 2003), little is known about the mechanisms underlying the bargaining process over economic value and how these mechanisms relate to the main body of research in the RBV.

Adopting a view of the firm as a "legal shell" (Lippman & Rumelt, 2003), or nexus of contracts (Jensen & Meckling, 1976), with property rights to resources, economic value can be seen as generated by resources and appropriated by stakeholders based on established property rights and bargaining (Coff, 1999). Bargaining over economic value can then be described as taking place in a two-stage game. In the first stage, economic value is distributed between firms, i.e., stakeholders acting as a coalition in bargaining with outside economic actors (inter-firm bargaining). In the second stage, internal stakeholders bargain over value captured by the focal coalition (intra-firm bargaining).

Applications of the stakeholder bargaining perspective on the RBV have primarily addressed the second stage of intra-firm bargaining between internal stakeholders (see Coff, 1999; Blyler & Coff, 2003). The pri-

mary focus of this presentation is on the first stage of the bargaining process (inter-firm bargaining), or more precisely, the distribution of surplus between seller and buyer.

The amount of economic value captured by a seller in any given transaction is affected by the seller's bargaining power (Porter, 1980). In general, the literature on bargaining power distinguishes a number of mechanisms affecting the bargaining power of economic actors. These mechanisms are (1) control, (2) information, and (3) switching costs.

(1) *Control* refers to unity of action (Coff, 1999) and the extent to which competing interests and goal conflict among internal stakeholders are balanced or resolved (Dutta et al, 2003) thus inducing proper action and coordination among coalition members.

(2) *Information* refers to the focal actor's access to key information (Coff, 1999; Michael, 2000; Blyler & Coff, 2003; Dutta et al, 2003). By releasing a specific type or amount of information, stakeholders can control the choice of others towards desired outcomes (Coff, 1999). Further, strategic information might allow the firm to pursue transactions/resources with economic rents attached to them (e.g. Barney, 1986; Makadok & Barney, 2001), or systematically approach economic actors with less bargaining power (Porter, 1980; Michael, 2000).

(3) *Switching costs* refers to the economic cost to a stakeholder of exiting a transaction pattern or relationship. Switching costs have been described in terms of structural industry factors (Porter, 1980), relationship specific (social-) ties (Michael, 2000; Blyler & Coff, 2003), and replacement costs (Coff, 1999).

Sections 2.1.1 and 2.1.2 has outlined some of the main insights on the creation, sustainability and appropriation of economic value based in mainstream RBV research and the bargaining literature. The review suggests that economic value differentials are created by resource heterogeneity (in terms of efficiency), sustained by limited mobility and barriers to competition, and appropriated by different economic actors based on property rights and their relative bargaining power in terms of information, control, and switching costs.

A focal insight from the review conducted above is that, contrary to what is assumed in mainstream RBV (see Peteraf, 1993; Peteraf & Barney, 2003), it would seem that resources and capabilities are not merely strategically relevant from an efficiency perspective, but also to the extent that they can enhance the focal firm's bargaining position by providing superior information, organizational control, and/or affect the relative switching costs of the transacting parties. The literature review suggests that firms can in fact make investments in specific resources and capabilities that improve their bargaining power (Michael, 2000; Dutta et al, 2003), thus extending Porter's (1980) notion of industry bargaining position to also include certain resource positions that, independently of efficiency, enhance the focal firm's bargaining power and its ability to appropriate economic value.

## 2.2 Structure of organizational capabilities

The firm-level factors (resources) introduced in the previous section have been defined slightly differently by different authors, thus creating a troubling ambiguity of terms. Given this fact, cited research has in common that it refers to some sort of factor controlled by, or semi-permanently tied to, the firm. In addition to traditional tangible resources, definitions also include intangibles and organizational factors such as: collective or shared skills, knowledge and experience (Caves, 1980). Barney (1991) explicitly states that the concept of resources includes such things as capabilities, organizational processes, firm attributes, information and knowledge. Hence, the logic of economic value creation, sustainability and value appropriation also applies to organizational capabilities. We now turn to the structure of organizational capabilities.

### 2.2.1 Prior studies on organizational capabilities

Grant (1991:119) defines organizational capability as “[...] the capacity for a team of resources to perform some task or activity.”. Organizational capabilities are seen as consisting of teams of resources working together under the coordination of organizational routines.

According to Dosi et al (2000:2), “[t]o be capable of some thing is to have a generally reliable capacity to bring that thing about as a result of

intended action. Capabilities fill the gap between intention and outcome, and they fill it in such a way that the outcome bears a definite resemblance to what was intended.”. Hence, capabilities can be viewed as working towards a specific outcome that reflects organizational intention. A similar notion is offered by Amit & Schoemaker (1993:35) who define organizational capabilities as “[...] a firm's capacity to deploy Resources, usually in combination, using organizational processes, to effect a desired end. They are information-based, tangible or intangible processes that are firm specific and are developed over time through complex interactions among the firm's Resources.”.

The notion of organizational capabilities can, in one sense, be dated back to Penrose (1959) and her emphasis on the deployment and use of bundles of productive resources rather than on the resources *per se*. A second important contribution to contemporary capability research has been made by evolutionary economic theory (Nelson & Winter, 1982). Evolutionary economic theory characterizes firms in term of heterogeneous sets of organizational routines<sup>8</sup>, which act as a form of storage room for the firm's operational knowledge. Hence, in the sense that capabilities reflect a firm's reliable or stable capacity for achieving certain desired outcomes they are seen as analogous to routines. This view is, for example, reflected in Winter's (2000:983) definition of organizational capabilities as a “[...] high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type.”. However, as also emphasized by Winter (2000), the concept of routines is, although primitive; separate from that of organizational capabilities. According to Winter (2000), this difference lies in that capabilities are, contrary to routines, substantial in scale and significance, and known to management.

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<sup>8</sup>Routines are, in the evolutionary economic tradition, seen as learned, tacit and repetitive action sequences performed within the firm. Nelson & Winter (1982:73) define routines, analogous to skills, as “[...] a smooth sequence of coordinated behaviour that is ordinarily effective relative to its objectives, given the context in which it normally occurs.”. Winter (2003:991) define routine as “[...] behaviour that is learned, highly patterned, repetitious, or quasi-repetitious, founded in part in tacit knowledge – and the specificity of objectives.”.

Table 2.1 presents a sample of definitions, or similar statements, of capabilities used in contemporary research. From the definitions used in prior studies, it is possible to extract some key properties of organizational capabilities. First, capabilities rely on assets or resources for their execution. Second, capabilities involve routines, activities and organizational processes. Third, capabilities work towards a desired end or a certain intended outcome.

Table 2.1 Definitions of organizational capabilities in prior studies.

Publication	Definition
Amit & Schoemaker (1993)	"[...] a firm's capacity to deploy Resources, usually in combination, using organizational processes, to effect a desired end. They are information-based, tangible or intangible processes that are firm specific and are developed over time through complex interactions among the firm's Resources." (35)
Dosi et al (2000)	"[t]o be capable of some thing is to have a generally reliable capacity to bring that thing about as a result of intended action. Capabilities fill the gap between intention and outcome, and they fill it in such a way that the outcome bears a definite resemblance to what was intended." (2)
Dutta et al (2005)	See Amit & Schoemaker (1993)
Ethiraj et al (2004)	See Amit & Schoemaker (1993)
Grant (1991)	A capability is "[...] the capacity for a team of resources to perform some task or activity." (119)
Helfat & Peteraf (2003)	"[...] organizational capability refers to the ability of an organization to perform a coordinated set of tasks, utilizing organizational resources, for the purpose of achieving a particular result." (999)
McEvily & Marcus (2005) (competitive capabilities)	"Competitive capabilities are the set of organizing processes and principles a firm uses to deploy its resources to achieve strategic objectives." (1034)
Winter (2000; 2003)	"An organizational capability is a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type." (991)

## 2.2.2 Definitions

As shown by the literature review in section 2.2.1, definitions of organizational capabilities differ slightly across studies. This requires the development of a distinct set of definitions for further use in this thesis. These are developed based on three different criteria. First, concepts should fit the aim of the thesis to develop the concept of pricing capa-

bility and explore the mechanisms connecting such a capability with firm performance. Second, concepts should be largely consistent with the majority of prior studies on organizational capabilities. Third, concepts should be sufficiently operational to be used in an empirical study. By and large, and with smaller changes in terminology, the definition provided by Amit & Schoemaker (1993) satisfies all three criteria (see Table 2.1). Hence, the following definitions and terminology are adopted: (1) **Resources** or **factors** denote any factor of strategic relevance that is controlled by, or semi-permanently tied to the firm. (2) **Organizational capabilities** are a distinct type of factor capable of bringing about a certain desired end. They are composite constructs built on the deployment of capability elements in activities leading towards the attainment of a desired end. (3) **Capability elements** cause variation in the degree to which the capability's desired end is attained. They consist of single assets/routines or discrete bundles of assets and routines.<sup>9</sup>

The relationship between concepts is illustrated in Figure 2.1.

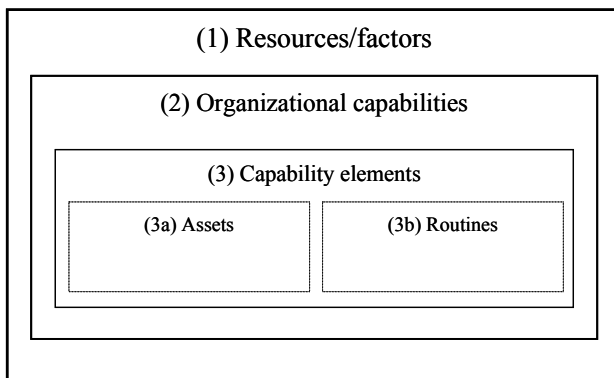


Figure 2.1 Hierarchical relationships between concepts.

The definitions stated above require some additional comments. Organizational capabilities are, as shown in the literature review and in the definition above, defined in relation to organizational objectives or desired ends (Amit & Shoemaker, 1993; Gibe & Hallberg, 2005; Gibe, 2007). The desired end expresses the distinct purpose of a particular

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<sup>9</sup>See Gibe (2007) for an examination of *capability elements* as the prime unit of analysis in the deployment of organizational capabilities and Salvato (2006:19) for an examination of the related concept of *replication bases* as the prime unit of analysis in the adaptation of organizational capabilities.



organizational capability. An illustrative example of how the notion of desired ends has been used in prior studies to define and delimit a certain capability is provided by Dutta et al (2003:616), who define pricing capability in terms of systems and processes that address the issues of “[...] appropriating rents and balancing competing internal interests.”.

In addition to the notion of desired ends, organizational capabilities rely on organizational processes or activities for their deployment (Amit & Schoemaker, 1993). This reflects the simple fact that a particular endowment of assets and routines does not itself bring the services of these endowments to market. Hence, the design and execution of firm activities are central for the realization of the value inherent in capability elements.

A final clarifying comment involves the use of the concept of capability elements. The term capability element has been adopted from Gibe & Hallberg (2005) and Gibe (2007), but is, as can be noted in the literature review, not a well-established concept in prior research on organizational capabilities. The concept is however similar to how the term “resources” is used in other studies on organizational capabilities (see for example Amit & Schoemaker, 1993). The reason why the term “capability elements” is preferred to “resources” is that: (A) it allows for a conceptual separation between the analysis of stand-alone resources and the elements of organizational capabilities, (B) it emphasizes the causal relationship between the element and the desired end, thus highlighting the element’s prime purpose of bringing about a particular desired end, and (C) it allows specifying commonly accepted and distinctive properties of organizational capabilities as consisting of capital or assets tightly integrated with behavioral components (i.e. routines).

## 2.3 The dynamics of organizational capabilities

In the previous section, the concept of organizational capabilities has been treated separately from the economic environment and product-market related factors such as industry structure or competitive strategy. Hence, the way in which the environment affects the deployment and adaptation of capabilities has not been discussed. The following section will elaborate on these issues with the ambition to position the treat-

ment of organizational capabilities in a broader theoretical context that acknowledges the interconnectedness between individual capabilities, business processes, competitive strategy, and firm environment.

### 2.3.1 Industry, competitive strategy and firm activities

The source of profit differentials between industries and firms has, as previously emphasized, been a prime concern for industrial economists and, later on, strategy scholars. In the classic industrial economics tradition, following the lines of Bain (1951; 1956), industries were assumed to be homogeneous and incumbent firms alike in all important dimensions except size. Intra-industry profit differentials were viewed as temporary to the extent that they were not based on scale economies or seller concentration. The classic line of industry analysis emphasized structural industry entry barriers protecting all incumbent firms from increased competition in the form of new entrants. Market power was seen as shared among firms in the industry in proportion to sales, creating a situation where industry profits could only be raised by increasing the concentration in the industry.

The representation of industries as homogeneous was questioned by empirical observations and theoretical developments in the late seventies and early eighties in what Schmalensee (1985) terms a *revisionist view of industrial economics*. The “revisionist view” posited, contrary to the classical view, that intra-industry performance differentials could arise independent of market power and scale. For example, due to uncertain imitability (Lippman & Rumelt, 1982), which arises as the result of uncertainty and causal ambiguity regarding the causal relationship between certain product market actions and performance, or intra-industry mobility barriers (Caves & Porter, 1977; Porter, 1979).

The concept of mobility barriers extended Bain’s notion of industry entry barriers to also apply within industries, thus broadening the analysis of structural differences between industries to include the structure within industries. Hence, industries were viewed as “[...] composed of clusters or groups of firms, where each group consists of firms following similar strategies in terms of key decision variables. Such a group could consist of a single firm, or could encompass all the firms in the industry.” (Porter, 1979:215). Porter (1979) refers to the type of intra-industry groups mentioned above as strategic groups.

The contribution made by Porter (1979) and others to the classical view of industrial economics on the notion intra-industry structure, mobility barriers and strategic groups paved the way for what is today considered the two basic propositions of industrial organization (i.e. IO) or industrial economics. In the words of Porter (1979:215), first, [...] common industry wide structural traits of an industry such as market growth, the structure of buying industries and generalized buyer purchasing behavior for the product will raise or lower the average profit potential of the industry as a whole.”. Second, the “[...] profitability of the individual firm will depend on the structure within the industry (i.e., the firm’s strategic group membership and the configuration of other strategic groups within the industry).”.

The new insights and theoretical developments in industrial economics accounted for above have probably been made most popular and had its greatest impact in the form of Porter’s (1980) competitive forces framework. Basically, this framework rests on the two basic IO-propositions outlined above. However, in its normative vein, the book focuses more closely on how managers in a particular firm can take advantage of industry structure in the development of a firm-specific competitive strategy that allows it to establish a competitive position within the industry where superior profits can be earned. Porter (1980) uses the concept of competitive strategy as a broad formula for denoting how a firm competes, or its basic mode of competition. In this sense, competitive strategy is defined as both the end the firm is striving for and the means by which it is planning to get there. The essence of Porter’s (1980) concept of competitive strategy is relating the firm to its environment (i.e. industry structure). Environment, or industry in Porter’s (1980) terminology, is, from a competitive point of view, seen as determined by five competitive forces: (1) threat of entry, (2) intensity of rivalry among existing competitors, (3) pressure from substitute products, (4) bargaining power of buyers, and (5) bargaining power of suppliers. According to Porter (1980), the goal of competitive strategy is to establish a competitive position within the industry where the firm can protect itself against these forces or use them to its advantage. A desirable competitive position, as outlined above, can be thought of as based both on the characteristics of the firm’s internal processes (see Porter, 1985) and its product offer attributes. Porter (1980) describes

this in terms of three generic strategies: overall cost leadership, differentiation, and focus.

Although separate from the IO tradition outlined above, which focuses on industry factors, the concept of firm activities, or the activity-based view (ABV), has gained significant influence in strategic management through the work of Porter (1985) as an explanation of the implementation and realization of competitive strategy. The basic argument of ABV is that the firm should be viewed as a set of interrelated activities aimed at providing the firm with primary functions such as inbound logistics, operations, outbound logistics, marketing and sales, and support functions such as infrastructure, human resource management, technology development and procurement (Porter, 1985). Porter terms this general framework for analyzing firm activities the *value chain*.<sup>10</sup> Activities performed within the value chain are characterized by the costs incurred, the customer benefit created, and their competitive scope. Hence, competitive strategy is seen as the result of how the firm configures and links activities relative to competitors, thus creating a distinct competitive position based on costs (overall cost leadership), customer value (differentiation) and competitive scope (focus/non-focus).

The IO-research outlined above provides a means of conceptualizing the economic environment and its impact on firm performance, while ABV provides a firm-level conceptual apparatus, in the form of firm activities, by which (competitive) strategy can be understood.

Environmental or industry factors play a pivotal role both in and of themselves, as indicated by several empirical studies of the determinants of firm performance<sup>11</sup>, and to the extent that they influence the deployment and adaptation of firm factors, such as organizational capabilities, in a particular economic environment. Hence, organizational capabilities can be seen as being deployed and adapted in an environ-

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<sup>10</sup>Later publications within the ABV have suggested that the generic value chain described in Porter (1985) actually only constitute one possible type of constellation of activities suited for manufacturing firms. Examples of other types of activity constellations are value shops and value networks (Stabell & Fjeldstad, 1998).

<sup>11</sup>E.g. Porter, 1979; Schmalensee, 1985; Rumelt, 1991; McGahan & Porter, 1997, etc.

mental (industry) interaction process<sup>12</sup> mediated by the particular activities that form competitive strategy.

### 2.3.2 Deployment and adaptation of organizational capabilities

Organizational capabilities (and other internal factors) can be seen as interacting with the external environment according to two groups of processes. Porter (1991) discusses these two groups of processes in terms of the cross-sectional and the longitudinal problem in strategic management. According to Porter (1991:95), the cross-sectional problem refers to “[...] the causes of superior performance at a given point in time”, while the longitudinal problem refers to “[...] the dynamic process by which competitive positions are created”. The two groups of processes are referred to as *deployment* and *adaptation*.

On a basic level, *deployment* refers to the process by which capabilities and other types of factors are activated, converted and brought to market. It is the structural characteristics of this process that have been the main focus of the types of explanations of firm performance that constitute the main body of research in strategic management. While the concepts used to describe this process differ among authors, the basic nature of the process and its dependency on the environment seem to be commonly accepted. For example, Barney (1991) discusses the role of resources in terms of their ability to enable the firm to conceive of and implement strategies relative to opportunities and threats in the environment. In a similar vein, Porter (1991) states that performing an activity, or group of linked activities, requires assets that are internal to the firm, while highlighting that assets are never valuable alone, but only to the extent they fit industry structure or a certain competitive strategy. Further, in an attempt to operationalize the dependent variable in empirical RBV-studies as the “effectiveness of business processes” (rather than overall firm performance), Ray et al (2004:26) argue that while “[...] resources may retain the potential for generating competitive advantage for some period of time, that potential can be real-

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<sup>12</sup>Even though it is acknowledged that a realistic conception of “firm environment” includes a myriad of potential contingencies, the concept is treated in a delimited fashion to primarily denote economic- or what has traditionally been conceived of as industry factors (see Amit & Schoemaker, 1993).

ized only if used in business processes, for it is through business processes that a firm's resources and capabilities get exposed to the market, where their value can be recognized." Hence, the picture presented above, implies a causal connection between resources and industry that is mediated by activities (Porter, 1991; 1985) or business processes (Ray et al, 2004), and firm (competitive) strategy. (Porter, 1980; Barney, 1991)

If deployment processes work from the firm and out towards the environment or market, adaptation processes work in the opposite direction, that is, from the environment in towards the firm. In this sense, *adaptation* refers to the process by which organizational capabilities and other internal factors develop or change to meet the requirements of the environment they are operating in. According to the evolutionary logic of adaptation (Nelson & Winter, 1982), firm endowments such as routines, practices or other firm-specific traits evolve according to four generic processes: the *variation* that occurs over time as a result of random or deliberate forces, the *selection* of certain types of variation according to either external or internal forces, the *retention* or preservation of selected traits, and the *struggle* that results from basic scarcity of critical resources (Salvato, 2006). In accordance with the four generic processes, organizational adaptation can also be described according to two basic types of organizational learning processes (Levitt & March, 1988; Gavetti & Levinthal, 2000; Zollo & Winter, 2002).

- *Experiential learning* operates by experience, learning by doing and trial-and-error based on current routines or standard operating procedures.
- *Cognitive search/learning* operates by means of foresight, assessment of consequences and ad-hoc problem solving or managerial intervention.

In recent work, the concept of dynamic capabilities (Teece et al, 1997; Eisenhardt & Martin, 2000; Zollo & Winter, 2002; Adner & Helfat, 2003; Winter, 2003) has been launched in the debate over organizational adaptation and innovation as a form of middle-way between pure experiential and cognitive forms of learning (Salvato, 2006). Dynamic capabilities are "[...] the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing envi-

ronments.” (Teece et al., 1997: 516). In other words, dynamic capabilities are high-order processes or routines aimed at altering other firm endowments in a predictable manner (Eisenhardt & Martin, 2000; Winter, 2003). In the sense presented above, the adaptation accruing from dynamic capabilities differs from changes based on experiential learning in that it is predictable, and thus in some sense intentional, but still based on relatively stable processes or routines. However, all non-experiential change within firms should not be seen as stemming from dynamic capabilities. In order to capture this characteristic of organizational change, Winter (2003) suggests that the notion of dynamic capabilities be contrasted to what he terms “ad hoc problem solving” as a possible way of dealing with changing environmental circumstances in situations where the cost/benefit ratio does not support the more expensive alternative of investing in dynamic capabilities.

The integrative view on resources and capabilities that is outlined above, based on the concepts of *deployment* and *adaptation*, is not novel in its ambition to highlight the interaction between product markets, activities and internal factors. For example, Normann’s (1975) business idea model outlined three conceptual levels in assessing firm competitiveness based on the consistency between a firm’s external environment (market), product offering and internal factors. Amit & Schoemaker (1993) highlight the strategic challenge facing managers of, *ex ante*, identifying, developing and deploying resources and capabilities that match current and future strategic industry factor. In a similar vein, Hedman & Kalling (2001) propose the use of a “generic business model concept” to explain the relationship between industry (customers/competitors), offering (physical component, price/cost, service component), firm value chain activities and organization, resources (human, physical, organizational), factors market (suppliers, production inputs) and longitudinal dimensions related to cognitive, informational and social constraints on actors. Another similar integrative framework is suggested by Mathews (2006). Mathew’s (2006) RARE framework is built on four cornerstones: (1) resources (the foundations of firm distinctiveness), (2) activities (generated by resource bundles), (3) routines (links resource bundles with activities), and (4) entrepreneurial endeavor (the initiating and organizing force of the system).

In conclusion, the concepts of *deployment* and *adaptation* allow the sketching of two types of causal relationships inherent in the prior research reviewed in this chapter. Figure 2.2 displays these two relationships and how they relate to key theoretical concepts. It illustrates how capability elements, in the form of assets and routines, once acquired in factor markets, are deployed toward the attainment of desired ends, such as a certain strategy or product market outcome, through a particular set of activities. Further, Figure 2.2 illustrates the continuous change in strategies, activities, and firm endowments, occurring as a result of adaptation to prior industry and environmental interaction.<sup>13</sup>

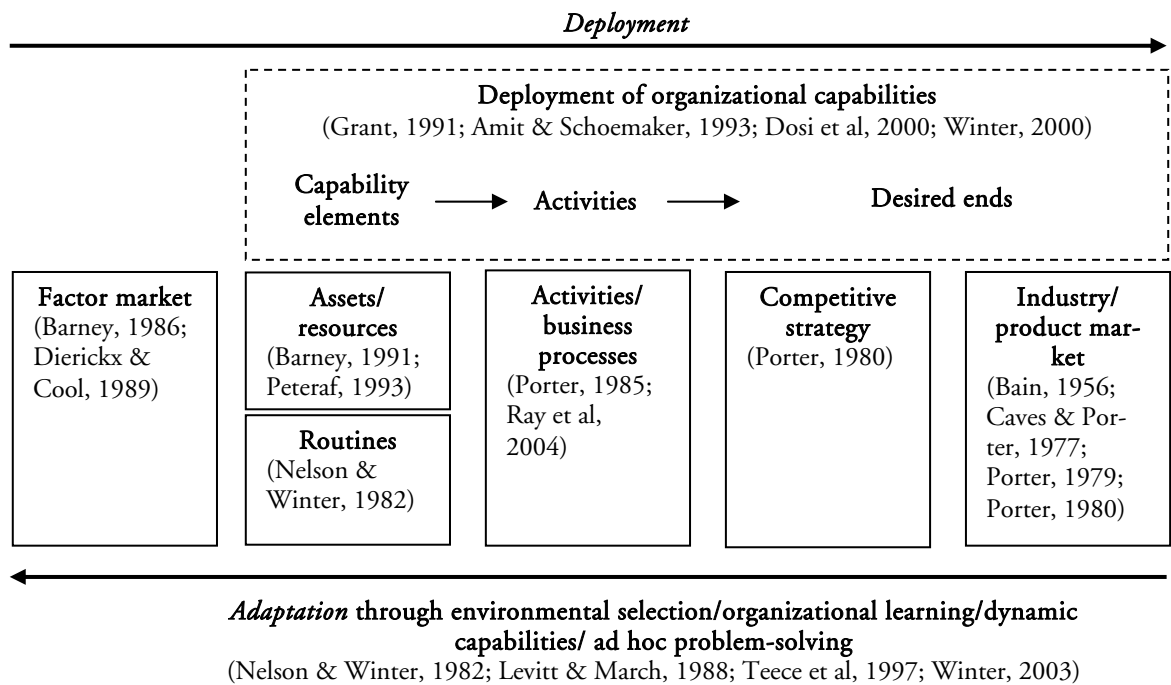


Figure 2.2 Deployment and adaptation of organizational capabilities: An integrative framework.

<sup>13</sup> Although conceptually separated in Figure 2.2, deployment and adaptation are, in fact, interconnected in a continuous and cyclical fashion.





## 3. Pricing capability

The aim of this chapter is to provide a preliminary pricing capability framework based on contemporary pricing research and the concept of organizational capabilities as outlined in the previous chapter.

### 3.1 Critical pricing factors in prior studies and theory

This section provides a review of contemporary pricing research with the aim of proposing a set of firm-level factors that have been associated with successful pricing. Due to the lack of rigorous and coherent research on potential factors underlying the concept of pricing capability, a broad range of literature in the areas of neoclassical price theory, price management, and research on pricing capability, is used for this purpose. Hence, based on the literature review, this section outlines critical pricing factors on three different levels: (1) *desired ends* (what are the generic objectives of pricing), (2) *pricing activities* (what do firms do in order to accomplish pricing objectives), (3) *pricing capability elements* (what firm endowments enable pricing objectives and activities).

#### 3.1.1 Price and pricing policy in neoclassical economic theory

Many of the basic concepts and relationships addressed in this thesis have their origin in economic price theory.<sup>14</sup> This warrants a short exposition of the basic concepts of demand, elasticity, and supply, and their implications for pricing policy.

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<sup>14</sup>Due to the general nature of the concepts and relationships of economic theory and the fact that the main purpose of the presentation is not to test or develop the analytical content of these ideas, the following presentation will be based on textbook presentations. Where no other references are given, or when general economic concepts are addressed, the sources are Png (2002) and Besanko et al (2004).

*Demand* - The *demand function* describes the demanded quantity of a certain product at every possible price while holding all other factors constant. At a lower price, buyers demand a larger quantity whereas at a higher price a smaller quantity. This reflects the principle of *diminishing marginal benefit*, which states that each purchased unit provides less benefit to the buyer than the preceding one. The principle of diminishing marginal benefit implies that the relationship between price and demanded quantity will be negative and that demand curves slope downwards.

A key interpretation of the demand curve is that it shows the marginal benefit buyers receive from each unit of production, and thus, the maximum price that will be accepted. Because preferences differ between individual buyers, or buyer segments, so does the level of benefit they receive from a particular product. Hence, given that a uniform price is set across the market, buyers with differential preferences receive differential levels of surplus. This phenomenon is captured by the concept of *buyer surplus*, which equals the total benefit received by buyers minus their expenditure (i.e. price).

Instead of setting a uniform price corresponding to the level of benefit received by the marginal buyer (the buyer who values the product the least), an individual seller can set different prices for various units of the same product. This allows the seller to extract a larger surplus from the buyers who receive high levels of benefit from the product (i.e. buyers who would have received a large buyer surplus with a uniform price) and to increase the production rate to include potential buyers for which marginal costs exceed marginal revenues under the uniform pricing policy (i.e. buyers who would not have bought the product at the profit maximizing uniform price). The practice of setting different prices (or incremental margins) for various units of the same product in order to reduce buyer surplus and increase the seller's profit is termed *price discrimination*.

*Elasticity* - The *own-price elasticity of demand* (price elasticity) represents the slope of the demand curve. The definition of price elasticity is the percentage by which demanded quantity will change if price is raised by 1 %. For most products there is a negative relationship between price and demanded quantity (i.e. downward sloping demand curve). If a large percentage change in price causes no change in de-

manded quantity, the price elasticity of demand is 0. If a 1% increase in price leads to more than a 1% decrease in demanded quantity, demand is *elastic* with respect to price. If a 1% increase in price leads to less than a 1% decrease in demanded quantity, the demand is *inelastic* with respect to price.

Profit maximizing pricing decisions take into account the price elasticity within the relevant range of the price change. All other things equal, firms should in order to maximize profits increase the price where the demand is inelastic and decrease the price where the demand is elastic. The reason for this is the proportionate change in price versus demanded quantity. A price increase in an inelastic market implies that the demanded quantity will proportionately not decrease as much as the price is increased, while a price decrease in an elastic market implies that, proportionately, the demanded quantity will increase more than the price is lowered.

*Supply* – Firms maximize profits at the production rate where its marginal revenue equals its marginal cost. *Marginal revenue* shows the rate at which total revenues increase with the sale of an additional unit. *Marginal cost* shows the rate at which total costs increase with the production of one additional unit. Hence, the firm's marginal cost curve determines how much the firm will produce at any given price. This relationship is represented by the individual supply curve (corresponding to the marginal cost curve).

A key interpretation of the *individual supply curve* is that it describes the minimum price that a seller will accept for each unit of production. From this perspective it is possible to explain how a seller will be affected by a change in price. The concept used to explain this is *seller surplus*. Seller surplus is the difference between the revenues from a certain production rate and the minimum amount necessary to induce production. In the short-run, the minimum price necessary to induce production is average variable costs. The minimum price to induce a seller to produce in the long run is average total costs. Thus, the short-run seller surplus equals revenues minus total variable costs and the long-run seller surplus equals revenues minus total costs.

A change in price will affect seller surplus (and profits) in two ways: a volume effect and a price effect. Both effects are determined by the cost

structure of the seller's operations in terms of the marginal cost curve. For example, when a price taker in a competitive market experiences an increase in (market) price, the seller will be induced to increase production so that marginal revenue equals marginal cost, thus earning surplus from the additional units sold (volume effect). Further, the higher price would also increase surplus from the production of the original number of sold units (price effect).

There are two main conclusions to be drawn from the discussion of supply. First, the cost structure of a firm determines the minimum price at which a supplier will produce (i.e. break-even restrictions). Second, the seller's marginal cost curve determines the proportionate effect that a change in price will have on seller surplus (profits).

*Pricing policy* - The brief review of basic economic concepts has shown three attributes of firm pricing policy that are desirable for a firm wishing to maximize its profits. In addition to providing a set of pricing related-objectives, these attributes also posit three dimensions by which firm pricing policy can be described.

- The demand curve facing a firm describes the marginal benefit buyers receive from products, thus determining the maximum amount that individual buyers or buyer segments are willing to pay. Buyer surplus reflects the differential levels of net benefit (total benefit-buyer expenditure) received by different buyers or buyer segments. One objective of a seller's pricing policy can therefore be said to discriminate prices across buyers or segments so that the price matches the received benefit. This is termed *price discrimination*.
- Price elasticity of demand reflects the percentage change in demanded quantity following a 1% increase in price. Demand is elastic if demanded quantity changes proportionately more than price. Demand is inelastic if demanded quantity changes proportionately less than price. One objective of a seller's pricing policy can therefore be said to set a relatively lower price if the demand is elastic and set a relatively higher price if the demand is inelastic. This is termed *price elasticity leverage*.
- The seller's marginal cost curve determines the optimal price/production rate and the minimum price at which the firm

will produce (i.e. the short and long run break-even points). Further, the marginal cost curve determines the financial impact of particular prices or price changes. Generally, profits are more sensitive to changes in volume if marginal costs are low. Further, profits are proportionately more sensitive to price changes if marginal costs are high. Hence, one objective of pricing policy can therefore be said to leverage the financial implications of a certain pricing policy based on the characteristics of the firm's (marginal-) cost structure. This is termed *operating leverage*<sup>15</sup>.

### 3.1.2 The price management literature

A growing line of publications, often in the form of books, outline pricing as a key managerial practice that if given adequate attention and managed correctly can have important effects on firm performance. This section briefly reviews the key ideas or organizing frameworks of some of the most influential books in price management (Monroe, 2003; Nagle & Holden, 2002; Dolan & Simon, 1996). The literature is highly normative and to a large extent built on a mix of economic theory, marketing management research and the personal consulting experiences of the authors. This often non-theoretic and hands-on normative focus provides an important indication of the type of factors that contemporary pricing literature predicts will govern successful pricing.

According to Monroe (2003) there are five essential factors affecting price and the pricing decision: (1) demand, (2) costs, (3) competitive factors, (4) corporate-/market objectives, and (5) regulatory constraints.

*Demand* defines the maximum amount that customers are willing to pay for a product or service. The demand curve is a result of the aggregated perceived benefit or demand curves of individual customers. Each individual point on a demand curve functions as a "price ceiling" for an individual customer (or segment with similar preferences). Demand considerations are important in the pricing process as they reflect the maximum amount that individual customers are willing to pay, and how customers will respond to price changes on an aggregated level. *Direct variable costs* represent the minimum amount that a supplier is

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<sup>15</sup>The term *operating leverage* has been adopted from Monroe (2003).

willing to sell at. Costs play an important role in assessing the profitability of different pricing alternatives and estimating the profitability implications of changes in product volume.

Having established a price maximum (perceived customer value) and minimum (direct variable costs), termed the initial pricing discretion, Monroe (2003) identifies three factors that affect price within this range: *competitive factors*, *corporate objectives* and *regulatory constrains*. Competitive factors are seen as reducing the actual price paid within the initial pricing discretion whereas corporate objectives and regulatory constrains raise the price within the relevant range. Corporate objectives are closely related to how pricing is managed by the firm. This involves how the organization sets its pricing objectives, processes relevant information, designs the pricing process, and handles competitor and customer reactions. Monroe (2003) suggests thinking of price management on three different conceptual levels: (1) understanding the economic and competitive environment (demand and supply, competitive forces), (2) developing product and market strategy (strategic integration that offers a consistent “value image”), and (3) administering the pricing process (organization of the pricing function).

According to Dolan and Simon (1996), the pricing process should be focused on the product’s value to customers. The initial analysis underlying the pricing decision is seen as having two components: *competitive analysis*, which is directed towards identifying differentiation opportunities and *consumer analysis* which is directed towards customer wants and segmentation opportunities. Based on this information, the target market is selected and the firm’s product offer is put together to create a certain *product/service positioning* and *marketing strategy*. The efforts described so far taken together with *competitive offerings* determine *perceived customer value*, which is as already mentioned, the maximum amount that customers will pay. Knowledge of the factors described so far allows the seller to react to the trade-off between price and volume, for the market as a whole or for individual segments or customers. There is also a relationship between the derived price and competitive offerings as competitors can change both their price and their value creation activities in response to the actions of the focal firm. This creates a need to complement prior analyses with information on competitor actions or reactions, cost structure, capabilities, business models,

etc. At this stage in the process, internal data, such as *costs*, plays an important role in evaluating the profitability of different alternatives.

Finally, Nagle and Holden (2002) describe strategic pricing on three different levels. *Level I* consists of the informational input to pricing strategy, including *customer needs and value expectations, seller's objectives and capabilities, and competitor's capabilities and intentions*. *Level II* consists of the integrative tools and procedures in which the informational input from Level I is used. Level II involves identifying *target customer segments and pricing objectives*, and developing a *value-based price structure* and *segment specific product variations*. *Level III* consists of the implementation aspect of pricing strategy. The width of the implementation of pricing strategy is particularly emphasized. According to Nagle and Holden (2002), in order for pricing to be successful, *price management* must be supported by the design of *distribution* and market *communication* activities.

### 3.1.3 Prior literature and studies on pricing capability

The number of empirical studies investigating pricing as an organizational capability is severely limited. Many articles outline conceptual or more general ideas, but few articles present a theoretical structure, and empirical evidence for their conclusions, which is consistent with the research on organizational capabilities presented in the previous chapter. Four of the articles (Urbany, 2001; Dutta et al, 2002; Vogel et al, 2002; Richards et al, 2005) reviewed in this section might be characterized as belonging to this category of less theory-laden and more practically-oriented articles on pricing (-capability). The empirical study by Dutta et al (2003) contrasts the four previously mentioned studies in that the article applies a more formal and theoretically grounded approach to the concept of pricing capability.

Urbany (2001) posits five different areas indicating how firms can reorient or improve their pricing in terms of managing and maintaining profitability rather than pursuing market share or sales objectives.

a) *Data/feedback* – Efforts should be made to turn seemingly soft decisions into hard quantities, according to the logic that “what gets measured gets done”. One example is, according to Urbany (2001), linking price, cost and demand data in one IT-system, and making sure that



decision makers have access to, and the capacity to understand, competitor information.

*b) Segmentation logic* – Navigating competitive situations is, according to Urbany (2001), intimately tied to understanding customer segments and the different willingness-to-pay of those segments. For example, aggressive competitive pricing action can be off-set by letting price sensitive customers go while keeping less price-sensitive customer segments. Urbany (2001) refers to this as a typical decision which is not easily justified internally, but crucial to a firm's successful pricing.

*c) Focus on the sales force* – The firm's sales force plays an important role in most pricing decisions. Naturally, this implies that changes in how prices are managed, at some point; have to work through the sales organization. This indicates the need for extensive sales-force training and tools that aid the understanding of profitability effects and likely competitive responses.

*d) Higher order thinking skills* – Implementing new decision-criteria in an organization relies on the ability of the people who make the decisions to apply them in their work. According to Urbany (2001), the firm need to make long-term profitability a justifiable objective within the organization, which might involve such matters as being able to present a vivid picture of the consequences of different actions and enabling the courage needed to move ahead even though decisions have to be based on more ambiguous decision-criteria.

*e) Commitment and configuration* – As a final element of successful pricing, Urbany (2001) stresses the importance of top management involvement. In particular, this works to justify the types of decisions and trade-offs that have to be made within the organization.

Dutta et al (2002) take on a somewhat different approach in their outlining of a strategic pricing capability. The main focus of Dutta et al (2002) is the investments that firms can make in three highlighted areas in order to develop a strategic pricing capability: human capital, systems capital and social capital. Dutta et al (2002) posit that investments in these three areas are all necessary and mutually supportive for the formation of pricing capability.

*a) Human capital* – According to Dutta et al (2002) an effective pricing process requires well trained people who understand such complexities involved in pricing, such as; firm strategy and product-/customer-/competitor attributes. Human capital is primarily acquired by training and recruitment.

*b) Systems capital* – Dutta et al (2002) emphasize the complementary effects between human and systems capital. Even well-trained and dedicated employees will not function effectively if they are operating with insufficient systems. Examples of IT pricing systems that are employed by firms are: systems that allow the firm to react to information about customers in real time, customer price-sensitivity tools, systems for tracking customer purchase history, systems for tracking discounts, and systems for accessing information about product use, comparable competitive products and engineering details.

*c) Social capital* – Social capital is suggested by Dutta et al (2002) as the “organizational glue” or coordination mechanism that holds the investments in human and systems capital together to form pricing capability. In addition to providing an important coordination mechanism, social capital is also suggested as an important barrier to competitor imitation.

Vogel et al (2002) suggests that the concept of pricing capability consists of four key areas: structure and responsibilities, policies and processes, incentives and compliance, and platforms and tools.

*a) Structure and responsibilities* – According to Vogel et al (2002), pricing should be managed at a top management level within the organization, such as by a pricing council of senior functional and business unit managers. Key tasks for the pricing council are: establishing high-level pricing strategy, monitoring key market changes, assigning clear roles and responsibilities to everyone involved in the pricing process, arbitrating cross-organizational issues, and tracking net effective price realization. The pricing council should, according to Vogel et al (2002), manage a team of pricing analysts who take care of the day-to-day coordination, impact simulation, discount decisions and the monitoring of price performance.

*b) Policies and processes* – Robust policies and processes enhance the management of pricing (Vogel et al, 2002). This involves clearing pricing and discount authority, specifying the type of customer and competitor information on which pricing decisions will be made, and actively managing how pricing decisions and policies are communicated. Controlling the execution of these activities, in turn, require that important factors are isolated and quantified so that decisions can be evaluated and used to improve future decisions.

*c) Incentives and compliance* – Incentive systems should be aligned with pricing objectives in order to ensure organizational compliance. Vogel et al (2002) stress the importance of adopting incentives systems and performance indicators that support objectives related to contribution margin and price realization.

*d) Platforms and tools* – The implementation of integrated, automated IT platforms, and highly visible pricing metrics are suggested by Vogel et al (2002) to be important measures for ensuring organizational compliance to pricing objectives. Thus, the goal of such systems is to ensure that the correct information reaches the decision-maker, but also to control employee behavior.

Richards et al (2005) posit a strategic pricing capability as an answer to three common pricing challenges that firms face: over-delegation, under-analysis, and relying on a single technological solution. The elements of the strategic pricing capability outlined by Richards et al (2005:28) involve five specific areas.

1. *Talent* (technical pricing expertise, knowledge of firm strategy, training program)
2. *Strategic management process* (linkage to strategic decisions, focus on price position relative to competitors)
3. *Roles and decision rights* (elevated role for pricing managers, re-defined expectations of senior management)
4. *Information and technology* (understanding of customer attitude, behaviors and economics; decision support information)
5. *Mindset and culture* (senior management role models, common language and standards, new definition of “success”)

By drawing on the RBV (Barney, 1991) and the behavioral theory of the firm (Cyert & March, 1963), the case-study by Dutta et al (2003) produces a detailed and theoretically grounded account of the routines, coordination mechanisms, systems, skills, resources, and activities, underlying pricing capability. Dutta et al (2003) argue that even though economic rents have been created firms need to have a capability in order to be able to appropriate them. According to Dutta et al (2003) such a pricing capability faces two basic objectives, being able to *appropriate rents and balance competing internal interests*.

The study of Dutta et al (2003) reveals two major sub-capabilities of pricing capability at the studied company. These are in turn broken down into activities consisting of a combination routines, coordination mechanisms, systems, skills, and resources.

(1) Price setting capability within the firm is described as comprising three activities: (a) *identifying competitor prices*, (b) *setting pricing strategy*, and (c) *translation from pricing strategy to price*.

(2) Price setting capability *vis-à-vis* customers is described as comprising two activities: (a) *convincing customers on the price change logic* and (b) *negotiating price changes with major customers*.

The two more tangible assets that were identified in the study were a *spreadsheet of competitor prices* and a *data system for tracking customers purchase history* (discounts, etc.). The importance of more tangible information systems in pricing is emphasized by Dutta et al (2003:625) who state that the “[...] system anchored the pricing capability at the firm we studied.”. The major elements of the pricing capability identified by Dutta et al (2003) are displayed in Table 3.1.<sup>16</sup>

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<sup>16</sup>Note that Dutta et al (2003) account for *routines, skills/know-how* and *coordination mechanisms* divided across four groups of activities, while in the text, discussing five different activities (*Setting pricing strategy* and *Translation from pricing strategy to price* are accounted for as one activity when accounting for routines, skills/know-how and coordination mechanisms). Further, the different forms of systems discussed in the text are not included as a category when accounting for other elements of the capability (routines, skills/know-how and coordination mechanisms).

Table 3.1 Pricing capability within the firm and vis-à-vis customers (adapted from Dutta et al, 2003:622; 624).

Activities	Routines	Skills/know-how	Coordination mechanisms
Identifying competitor prices	Defining functionally equivalent products Nested routines for tracking competitive prices (e.g. special discounts) Accessing competitive price information	Technical know-how about competitive products, product changes Sales force tacit know-how of field sources for reliable competitive price information	Cross-functional teams to generate equivalent competitive product comparisons Coordination between sales force and select customers to establish competitive prices
Setting pricing strategy and translation from pricing strategy to price	Collecting customer purchase history Nested conflict resolution routines Tracking past pricing actions Pricing action analysis	System development expertise Pricing strategy expertise Database skills Financial analysis skills Customer price sensitivity Scenario analysis of customer response	Coordinating knowledge of differing assumptions Developing consensus on assumptions about customers Coordinating knowledge of different pricing strategies Channelling information of pricing actions
Convincing customers on the price change logic	Information exchange with customers' pricing systems Identify effect on customers' customers Send information to pricing team Preparer price change presentation	Technical skills: pricing tool kit and price change effects Know-how on customer response Tacit know-how to separate sincere concerns from negotiating postures	Learn about different perspectives Develop consensus within firm and sales force on new prices Learn of customer response
Negotiating price changes with major customers	Organizational hierarchy approval of new prices Customers assessment Development of negotiation materials (repeat overall firm analysis at customer level)	Knowledge of firm members biases and relations with customers Know-how about competitive offerings Knowledge of customer negotiation strategy Cross-functional negotiation expertise Customer price sensitivity analysis	Consensus among participants on new prices Consensus in negotiation team on negotiation strategy

### 3.1.4 Summary of critical pricing factors

The review conducted in the previous section yields a number of factors that have been posed as critical to successful pricing. Although showing different conceptualizations, the review identifies important commonalities. Neoclassical economic theory describes pricing policy as determined by the potential for discriminating prices across buyers, the price elasticity of demand, and the seller's costs structure. The price management literature and studies on pricing capability basically concur with neoclassical theory concerning the centrality of demand and cost factors, while adding organizational or implementation oriented factors, such as activities aimed at the development of pricing policy, competitor intelligence, communication/negotiation, and the use of particular forms of assets, such as the pricing organization, pricing information systems, and the pricing skills of employees.

The character of the factors identified above differ in that they either refer to critical dimensions used to characterize pricing policy, the activities performed in the pricing process, or the different forms of assets required for the execution of pricing activities. Hence, the critical pricing factors identified in the review can be organized according to the conceptual scheme suggested in Chapter 2 (see Figure 2.2) as a way of describing the structure of organizational capabilities. Table 3.2 summarizes the identified factors organized under the headings of *pricing capability elements*, *pricing activities*, and *pricing policy*.

Table 3.2 Critical pricing factors.

Pricing capability elements	Pricing activities	Pricing policy
Pricing information systems	Pricing policy development	Price discrimination
Pricing organization	Demand analysis	Price elasticity leverage
Pricing skills	Cost and profitability analysis	Operating leverage
	Competitor intelligence	
	Communication and negotiation	

The presence of different conceptualizations of critical pricing factors in prior studies requires that the choice of concepts and terminology in Table 3.2 is given some further explanation.

Capability elements were in section 2.2.2 defined as consisting of single assets or routines, or discrete bundles of assets and routines. Although acknowledging “micro-level” components, such as individual assets or routines, as building blocks of organizational capabilities, this study does not directly examine, or single out, these constructs. Rather, behavioral micro-components (routines) and different forms of assets are viewed jointly as integrated bundles tied together by their common function. Three different types of pricing capability elements were identifiable across reviewed studies: (1) *pricing information systems*, (2) *pricing organization*, and (3) *pricing skills*. While exhaustive and consistent with reviewed studies, this classification corresponds to the description given by Dutta et al (2002) of pricing capability as consisting of particular forms of *systems capital*, *social capital*, and *human capital*.

The choice of activities to portray a process can be questioned based on the grounds that the underlying process does not sub-divide itself into activities, and thus comes across as continuous rather than discrete, making classification to some extent a matter of subjective choice. Acknowledging this and the fact that prior studies are not consistent in their classification, the pricing activities presented in Table 3.2 represent an abstraction of commonalities across studies that have been formed with an ambition to provide an exhaustive account of the pricing process that captures all major activities portrayed in prior literature. Based on these considerations, five different types of pricing activities are outlined: (1) *Pricing policy development*, (2) *Demand analysis*, (3) *Cost and profitability analysis*, (4) *Competitor intelligence*, and (5) *Communication and negotiation*.

The three pricing policy dimensions outlined in Table 3.2 reflect basic relationships inherent in neoclassical price theory. Hence, they correspond to the fact that profit-maximizing prices are determined by three inter-related conditions: the differences in preferences and utility that give rise to differential levels of surplus across buyer segments (price discrimination); the difference in aggregate levels of price elasticity across markets (price elasticity leverage), and the varying cost conditions facing sellers across pricing situations (operating leverage).

The following sections (3.2-3.4) will elaborate on the different types of critical pricing factors identified in Table 3.2 with the objective of developing a content driven preliminary pricing capability framework that

captures the basic structure of organizational capabilities outlined in Chapter 2. Hence, the next section (3.2) addresses the concept of pricing policy and elaborates on the three pricing policy dimensions introduced above. Section 3.3 describes the five different pricing activities stated in Table 3.2. Section 3.4 outlines the concept of pricing capability elements. And finally, section 3.5 summarizes the preliminary pricing capability framework as introduced in earlier sections (in the form of Figure 3.1).

## 3.2 Desired ends of pricing capability: Market outcomes and pricing policy

This section addresses the desired end of pricing capability. The aim is to validate this concept relative prior research, provide a definition, and outline the relationship between this and other concepts included in the framework.

### 3.2.1 Market outcomes

Out of the studies dealing specifically with pricing capability, Dutta et al (2003) are most specific about stating an aim or desired end. According to Dutta et al (2003:616), a pricing capability consists of routines, coordination mechanisms, systems, skills, resources, and activities, aimed at “appropriating rents and balancing competing internal interests”. Hence, in accordance with the neoclassical price model, Dutta et al (2003) highlight the appropriation of economic value (economic rents) as a desired end of pricing capability. However, Dutta et al (2003) also brings to the forefront the alignment of organizational behavior through particular routines and coordination mechanisms.

Other articles dealing with the concept of pricing capability are less explicit in stating a specific desired end of pricing capability. Rather, these articles tend to more or less explicitly rely on the common sense notion of (long-term) profits. Stating profitability as a desired end of a pricing capability might seem obvious from both a common-sense and economic perspective. However, as is indicated by several authors, the issue is less clear from a marketing perspective where objectives such as customer satisfaction and market share growth have played an important



role both in the literature and in practice (Urbany, 2001; Nagle & Holden, 2002). A similar picture of the desired end of pricing also emerges from the price management literature where the aim of successful pricing is portrayed as achieving maximum financial performance (Dolan & Simon, 1996). Hence, the literature tends to reflect a series of analytical procedures aimed at assessing the short or long-term profitability effects of pricing decisions or policy.

It is hard to identify any single conclusive or precise definition of the desired end of pricing capability that separates such a capability from other types of organizational capabilities. It is obvious that “profitability” does not in itself provide an adequate operationalizable goal for firms willing to improve their pricing, and nor does it provide a researchable dependent variable in empirical studies aimed at isolating practices leading to superior pricing. The more fine-grained suggestion by Dutta et al (2003) of defining the desired end as “appropriating rents and balancing competing internal interests” resolves some of the indeterminateness endowed in the concept of profitability as it delimits the desired end, or dependent variable, from pure value creating processes. However, it also introduces serious definitional and measurement problems as firms rarely know the exact amount of economic value they are creating for a customer or how this value is being distributed by price. Hence, in any practical sense, “appropriate rents” must for most firms basically just mean “make as much profit as possible”.

### 3.2.2 Pricing policy

Both “profitability” and “appropriation of rents” are, as the discussion above shows, distinguished by the fact that they are relatively wide and inclusive product market level concepts that, when applied to a specific functional field, such as pricing, do not very easily lend themselves to operationalization or practical use. However, the problems of defining the desired end of a pricing capability on a product market level in terms of realized profits or appropriated rents can be resolved, as suggested by other authors, by identifying the effects of pricing capability on the particular activities/business processes (Ray et al, 2004) and strategy/policy (Barney, 1991) being implemented.

The concept of pricing policy is defined as a policy that governs how price varies over products, customers or time. In line with definitions

provided by other authors<sup>17</sup> (Tellis, 1986; Noble & Gruca, 1999), pricing policy is viewed as the means by which the firm tries to achieve specific price related market outcomes in response to a given scenario by the use of a certain price level or price schedule.

The pricing literature and the neoclassical model are quite specific about desirable properties of pricing policy. More specifically, these properties can be described according to three dimensions: (1) Price discrimination, (2) Price elasticity leverage, and (3) Operating leverage.

*Price discrimination* implies setting a price equal to the individual customer's (or segment's) perceived benefit of the product being sold.

*Price elasticity leverage* implies setting a relatively higher price if the price elasticity of demand is low, or setting a relatively lower price if the price elasticity of demand is high.

*Operating leverage* implies setting a higher price if the firm has a lower operating leverage (i.e. higher variable costs), or setting a lower price if the firm has a higher operating leverage (i.e. high fixed costs).

The three suggested pricing policy dimensions can, in a generic sense, be used to characterize the economic principle underlying particular pricing policies. Naturally, all individual pricing policies are to a greater or lesser degree characterized by all three dimensions.

The classification, or dimensionalization, of the concept of pricing policy provided above differs somewhat from prior studies suggesting specific taxonomies of individual pricing policies. The taxonomy of pricing strategies (policies) provided by Tellis (1986) outlines nine different pricing strategies<sup>18</sup>. Pricing strategies are classified according to shared

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<sup>17</sup>Tellis (1986) and Noble and Gruca (1999) use the term "pricing strategy". However, in order to prevent confusing the concept with "competitive strategy" (Porter, 1980) and avoid discussion about "functional strategies", the term "pricing policy" will be used.

<sup>18</sup>The pricing strategies suggested by Tellis (1986) are; random discounting, periodic discounting, second market discounting, price signaling, penetration pricing/experience curve pricing, geographic pricing, image pricing, price bundling/premium pricing, and complementary pricing.

economies<sup>19</sup> among buyer segments, firms and products. The classification scheme is constructed based on two dimensions: (1) pricing objective (differential pricing, competitive pricing, product line pricing), and (2) characteristics of consumers (search costs, reservation price/price sensitivity, transaction costs).

In a later study, partly built on the taxonomy provided by Tellis (1986), Noble & Gruca (1999) identified ten different pricing strategies commonly used by firms in industrial pricing. Each of the ten pricing strategies is linked to one or more determinants that were found to govern firms' choice of pricing strategy. Further, pricing strategies were also classified as belonging to one of four different pricing situations. The identified determinants and pricing situations partly correspond to Tellis (1986) notion of consumer/firm/product characteristics and pricing objective. Table 3.3 presents the pricing strategies identified by Noble & Gruca (1999:438; 452) along with pricing situations and determinants.

The use of different pricing policy dimensions in this thesis, and in the two cited studies, can primarily be attributed to the chosen level of abstraction. For example, Tellis' (1986) notion of shared economies can be explained in terms of operating leverage, and achieving an optimal allocation of costs across different customers or products, while product line strategies can be explained as either price elasticity leverage, in terms of utilizing strong cross-product elasticity, or price discrimination, in terms of utilizing differential customer price sensitivity. Hence, rather than influencing the classification of pricing policy dimensions, the two cited studies contribute to the pricing capability framework outlined in this thesis by suggesting particular examples of widely used pricing policies. However, a number of reservations should be made. The study by Tellis (1986) was primarily focused on consumer markets, while the framework outlined in this thesis is primarily focused on business-to-business settings. The study by Noble & Gruca (1999) was, although conducted in an industrial setting, primarily focused on uniform pricing policies, while the concepts developed in this thesis fit both per-sale and uniform pricing policies. Further, there are important

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<sup>19</sup>Shared economy is defined as a situation in which “[...] one consumer segment or product bears more of the average costs than another, but the average price still reflects cost plus acceptable profit.” (Tellis, 1986:147).

differences in perspective between the present and Noble & Gruca's (1999) framework. Whereas the capability framework outlined in this thesis focuses on the internal elements enabling the implementation of particular pricing policies, the study by Noble & Gruca (1999) addresses the applicability of pricing policies given (external) determinants.

In conclusion, the desired end of pricing capability can be represented by the implementation of a particular pricing policy described along the dimensions of price discrimination, price elasticity leverage and operating leverage, or in terms of the corresponding pecuniary amount (profits) representing the level of economic value appropriated by the seller through the implementation of the selected pricing policy.

The desired properties of pricing policy and market outcomes, outlined above, are as suggested by the integrative capability framework presented in Chapter 2 (Figure 2.2), most immediately governed by the firm's activities. These are addressed in the next section.

Table 3.3 Pricing strategies (-policies) and determinants (adapted from Noble & Gruca, 1999:438; 452).

Strategy	Description	Determinants
<b>New product pricing situation</b>		
Price skimming	We set the initial price high and then systematically reduce it over time. Customers expect prices to eventually fall.	High product differentiation Cost disadvantage due to scale
Penetration pricing	We initially set the price low to accelerate product adoption.	Cost advantage due to scale Elastic demand Inelastic brand demand
Experience curve pricing	We set the price low to build volume and reduce costs through accumulated experience.	High product differentiation Not major product change Low capacity utilization
<b>Competitive pricing situation</b>		
Leader pricing	We initiate price changes and expect other firms to follow.	No significant determinants
Parity pricing	We match the price set by the overall market or the price leader.	High costs Low market share Low product differentiation Elastic market and brand demand High capacity utilization
Low-price supplier	We always strive to have the low price in the market.	Low factor utilization Low costs Cost advantages due to scale No cost advantages due to learning Elastic brand demand
<b>Product line pricing situations</b>		
Complementary product pricing	We price the core product low when complementary items such as accessories, supplies, spare parts, services, etc. can be priced with higher premium.	High profits on supplementary sales
Price bundling	We offer this product as parts of a bundle of several products, usually at a total price that gives our customers an attractive savings over the sum of individual prices.	Per sale/contract pricing Elastic brand demand
Customer value pricing	We price one version of our product at a very competitive level, offering fewer features than are available on other versions.	Hard to detect price changes Narrow market appeal High market growth
<b>Cost-based pricing situation</b>		
Cost-plus pricing	We establish the price of the product at a point that gives us a specified percentage profit margin over our costs.	No significant determinants

## 3.3 Pricing activities

This section addresses the notion of pricing activities. Drawing on the critical pricing factors identified in section 3.1.4 the five identified pricing activities are outlined in more detail. The ambition is to summarize how the pricing process is described in the price management literature and prior studies on pricing capability. As mentioned in section 3.1.4, outlining a generic description of the pricing process based on prior literature presents a set of problems related to the inconsistencies present in prior studies and the fact that some important studies, such as Dutta et al (2003), only cover a limited context (an individual firm), and thus a limited set of specific activities. Hence, rather than concentrating on the contributions of individual studies and contextualized descriptions, this section focuses on a broader notion of the particular function that the identified activities are assumed to play in the pricing process.

### 3.3.1 Pricing policy development

Pricing policy development addresses aspects of the firm's strategic planning process related to price. A common notion is that there is a hierarchical relationship between the firm's competitive strategy, pricing policy, and individual prices (Nagle & Holden, 2002). Hence, each level is seen as limited by the level immediately above it, i.e. the actual price charged is dependent on the pricing policy, which in turn is dependent on its competitive strategy. This implies that pricing policy, in order to be consistent and supportive of the firm's competitive strategy, needs to be integrated with the firm's strategic planning process.

The study by Noble and Gruca (1999) provides a taxonomy of empirically identified pricing strategies (policies) used by firms (see section 3.2.2). The results offer an indication of the determinants governing firm's pricing policy. Although not a primary conclusion of Nobel & Gruca (1999), the linking of specific pricing policies to determinants such as product differentiation, cost advantage, and market appeal, indicates a certain relationship between pricing policy and competitive strategy. Hence, firms following a competitive strategy of overall cost leadership could benefit from pricing policies such as penetration pricing or low-price supplier (because of cost advantage due to scale). Firms following a differentiation strategy could benefit from price skimming

(because of high levels of differentiation), and firms pursuing a focus strategy could benefit from customer value pricing (because of narrow market appeal).

From the perspective outlined above, based on the price management literature and studies on pricing strategies/price determinants, the prime challenge facing firms seems to reside in the assessment of, and subsequent adjustment to, relevant environmental determinants or characteristics of the firm's overall strategic position.

### 3.3.2 Demand analysis

The purpose of demand analysis is to generate information needed in deciding on the price to charge different customers or customer segments. One way of using this information is to set different prices for different customers or customer segments. Another is to charge the same price to all customers. Hence, pricing policy can be seen as containing two different uses of demand information: uniform pricing and price discrimination (Png, 2002). Uniform pricing involves the policy of setting the same price for a certain product across the market. The uniform pricing policy ignores the fact that different buyers place different value on or receive different levels of benefit from the product and thus are willing to pay different amounts for the product. Price discrimination involves charging different prices to customers according to their received benefit from the product, which allows the seller to appropriate parts of the buyer surplus. There are three main levels of price discrimination. (1) Complete price discrimination – the seller prices each unit at the buyer's benefit and sells a quantity so that marginal benefit equals marginal cost. (2) Direct segment discrimination – the seller charges different incremental margins to each identifiable buyer segment in the market. (3) Indirect segment discrimination – the seller structures a choice for buyers in order to earn different incremental margins from each segment.

From an economic perspective, the different levels of price discrimination represent different levels of attractiveness to the selling firm. Complete price discrimination is the most attractive alternative, as buyer surplus is perfectly appropriated by the seller. However, complete price discrimination is in most situations not achievable as the seller must know each individual buyer's demand curve. The second most attrac-

tive alternative is direct segment discrimination. This alternative depends on the segments being directly identifiable (for example based on age, student/non student, etc.) and allows the seller to appropriate some of the buyer surplus without risking opportunistic customer behavior such as customers posing as more price sensitive than they actually are (because each customer can be directly tied to a certain segment). Indirect segment discrimination is the least attractive approach. This approach is used in situations where there are no direct buyer characteristics for buyer identification, which means that the seller has to differentiate between segments by offering different products/service attributes to different segments so that the offer only becomes attractive to the targeted segment.

Pricing decisions are often made in a more or less aggregated format involving several customer segments with different preferences. Hence, in addition to the willingness-to-pay of individual customers or customer segments, pricing decisions involve trade-offs between price and volume. One practical tool suggested in the price management literature for calculating or estimating the volume-effect of a price change is the *price response curve* (Dolan & Simon, 1996). The price response curve, which is a graphical representation of the relationship between price and volume, draws heavily on the logic of the demand curve. There are four basic approaches creating the price response curve. (1) Expert judgment – Suggested in cases where a pricing decision is made for an innovation or a new competitive situation. “Internal market experts” are asked to correlate price and volume by answering questions like; “what is the lowest realistic price and the expected sales volume at this price”, “what is the highest realistic price and the associated sales volume”, “what is the expected sales volume at the medium price”. This would create three “price-volume points” from which to create a rough price response curve. (2) Analysis of historical market data – If prices have varied naturally in a market, segment or across similar markets for the same product, the different historical price-volume data points can be used to construct a price volume estimate for relevant markets/segments. (3) Customer survey – Two different methods for extracting price response estimates from the customer are suggested: to directly ask customers how they would respond to a certain price, or to infer the response from an analysis of data on customer preferences for



one product over another<sup>20</sup>. (4) Price experiment – Response is observed in an actual controlled purchase situation. The method has the benefit of providing the opportunity of observing actual purchase behavior (has limited relevance in a business-to-business situation).

### 3.3.3 Cost and profitability analysis

The firm's cost structure affects the price in two related ways. First, costs determine the lower limit at which a product can be profitably sold (representing the seller's break-even restriction). Second, the size of the firm's *operating leverage* determines the effect a price change will have on profits (presuming that  $E \neq 0$ ). Operating leverage is a form of elasticity measure, which shows to what degree profits are sensitive to changes in sales volume (and thus changes in price).<sup>21</sup> Firms with a higher proportion of fixed costs and low variable costs per unit have a higher operating leverage for a certain sales volume (i.e. profitability is more sensitive to the volume effects of price changes).

Operating leverage can play an important role in understanding pricing behavior in a specific market. For example, firms in the UK petrol market have been shown to increase prices in some situations despite facing a highly elastic demand (Cohen, 1999). The suggested explanation being that the low contribution/price ratio in the industry made firms less sensitive to the subsequent decrease in volume (Cohen, 1999). Hence, operating leverage and thus the individual firm's cost structure can be used for analyzing the profitability effect of different pricing alternatives even when demand and the own price elasticity of demand are unknown.

In general, price changes have two types of effect on profitability: the contribution margin of all units sold will change, and the number of units from which contribution is earned will change. In the case of a decrease in price at original volume X, the contribution earned from X

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<sup>20</sup>The method suggested here is conjoint measurement/analysis; see Dolan and Simon (1996) or Monroe (2003) for an explanation of the method.

<sup>21</sup>The degree of operating leverage is calculated as the total contribution at sales volume X divided by operating profits at sales volume X, or as the percentage change in operating profits divided by the percentage change in volume (Monroe, 2003).

units will decrease (the price effect), but as the price is lowered, Y additional units will be sold earning an additional contribution (the volume effect).<sup>22</sup> A key issue in evaluating such a decrease in price is the number of additional units (Y) that need to be sold in order to recover the loss in contribution from X.

The type of analysis described above is termed *incremental breakeven sales analysis* (Nagle & Holden, 2002). The benefits of using the firm's operating leverage to calculate the necessary change in volume for a price change to breakeven is that, even though the own price elasticity of demand may not be known, the method enables the firm to approximate under what price elasticity a certain change in price is profitable, thus showing what percentage change in sales volume is required, given a certain percentage change in price (i.e. the two components needed to calculate the own price elasticity of demand). The strategic implications of this are that firms need to take into account their operating leverage or contribution percentage relative to competitors when analyzing the applicability of a certain pricing policy. For a price cut to be profitable in the long run the product must have a relatively large contribution margin prior to the price reduction; the market should be in a growth situation (i.e. elastic demand) and the firm should have an advantage in its operating leverage towards competitors (Monroe, 2003).

### 3.3.4 Competitor intelligence

Competitor intelligence involves activities aimed at gathering and analyzing information about competitors' present and future price points, their product/service characteristics, capabilities and cost structure.

Information about competitors is required by the selling firm in a number of areas related to pricing, some of which are associated with the other activities addressed in this section. First, many practical methods of evaluating a customer's willingness-to-pay, such as Economic Value Estimation<sup>TM</sup> (Nagle & Holden, 2002), involves an assessment of buyer alternatives (the opportunity cost to the customer), which is determined by competing products' price and function. Second, the applicability of a certain pricing policy is contingent on the

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<sup>22</sup>Assuming that the own price elasticity of demand is less than 0 ( $E < 0$ ).

firm's cost structure or operating leverage relative to competitors. Third, competitor price information can be used to validate or complement information given by customers in negotiations, thus reducing the risk of being misled by customers deliberately trying to bring prices down by spreading false price information (Nagle & Holden, 2002). Fourth, information about competitors can be used to understand or predict competitive responses to a certain pricing policy or price change (Nagle & Holden, 2002).

### 3.3.5 Communication and negotiation

Communication and negotiation involves interaction with market actors such as customers and competitors. The success of any pricing policy is dependent on the seller being able to communicate the benefits that is associated with the firm's products and how these benefits are linked to actual price points. In addition, having communicated the firm's pricing policy, the reaction of both customers and competitors is contingent on the credibility of the firm's commitment, for example, in terms of how willing the firm is to negotiate its prices downwards (Nagle & Holden, 2002). The two items addressed above are connected in the sense that the value of the product is partly judged, from the customers' point of view, based on how the product is priced on other occasions or towards other customers. Hence, consistency in prices over time and towards different customers is important to gain credibility towards other parties.

In a more normative vein, Nagle & Holden (2002) offer two specific recommendations regarding how communication and negotiation should be managed. First, firms should rely on fixed pricing policies based on customer value that deter opportunistic customer behavior brought forth in price negotiations where the customer has incentives to either give the impression that they are more price sensitive than they actually are, or deny the products actual benefits. Second, firms should understand and communicate the value of the product to the customer in such a way that the customer understands that the selling firm is aware of the benefits or value it is providing.

## 3.4 Pricing capability elements

This section addresses the concept of pricing capability elements. With the exception of Dutta et al (2002; 2003), explicit accounts of different types of pricing capability elements are rather sparse. As discussed in section 3.1.4, Dutta et al (2002) describe the different elements of pricing capability in terms of social, system, and human capital. Using a somewhat different but broadly consistent terminology, Dutta et al (2003) outline the structure of pricing capability as a complex configuration of routines, coordination mechanisms, systems, skills/know-how and resources. Other reviewed articles on pricing capability are less explicit about capability structures and tend to rely on a more general description of critical pricing factors that broadly correspond to different elements of the focal firm's organization; information systems and pricing related skills (see section 3.1.4 for a review of critical factors).

Based on the critical pricing factors summarized in section 3.1.4, this section outlines three fundamental types of pricing capability elements related to the seller's *pricing organization (social capital)*, *pricing information systems (system capital)*, and *pricing skills (human capital)*.

### 3.4.1 Pricing organization (social capital)

Social capital refers to aspects of the social structure that facilitate actions of individuals within that structure (Coleman, 1990). Hence, social capital resides in the relationships (social structure) between actors rather than in the actors themselves (thus separating it from human capital). The notion of social capital covers both formal aspects of organization (such as authority relations and the organizational structure) and informal aspects (such as obligations/expectations and norms).

The review of critical pricing factors in section 3.1.4 showed several instances of how social capital, or the firm's organization, affects pricing. Dutta et al (2002) particularly highlight the role of social capital in coordinating other forms of capital engaged in the pricing process. The case-study by Dutta et al (2003) does not explicitly state social capital as an element of pricing capability. However, social capital is closely related to such concepts as organizational routines and coordination mechanisms, which Dutta et al (2003) use to describe pricing capability.

Other authors highlight similar pricing related aspects of organization and social capital. Issues that fall under the heading of organization or social capital are: how formal responsibilities and decision rights are allocated (Vogel et al, 2002; Richards et al, 2005), how internal incentives are structured and employee compliance achieved (Vogel et al, 2002), the level of top management involvement (Urbany, 2001), the attention or weight pricing issues are given within the organization (Urbany, 2001), and the particular culture or mindset prevailing in the organization (Richards et al, 2005).

### 3.4.2 Pricing information systems (system capital)

Pricing information systems (systems capital) refer to the technologies used by firms to collect, administer and retrieve information relevant for pricing decisions (see Dutta et al, 2002). The review of critical pricing factors in section 3.1.4 showed several instances of how pricing information systems affect pricing. Dutta et al (2002) highlight the role of systems as a complement to human capital that enables firms to fully utilize the skills of its employees. According to Dutta et al (2002), systems capital plays an important role in enabling; a quick customer response, analysis of customer price sensitivity, price changes, understanding of costs and product profitability, storing/retrieving information about customer purchase history, and keeping track of individual price points/discounts, technical product information, and comparable competitor products. Further, the case-study by Dutta et al (2003) not only emphasizes the role of systems as tools for storing and retrieving information, but also how investments in computer systems can support the development of related routines and processes that enables the firm to overcome coordination problems and internal goal conflicts (i.e. strengthening social capital). Other authors highlight similar aspects of pricing information systems and systems capital: data/feedback (Urbany, 2001), platforms and tools (Vogel et al, 2002), and information and technology (Richards et al, 2005).

### 3.4.3 Pricing skills (human capital)

Human capital refers to the specific skills and knowledge acquired by, and embodied in, individual persons (Coleman, 1990).<sup>23</sup> Human capital related to pricing is primarily acquired by employee training and the hiring of selected individuals (Dutta et al, 2002).

The review of critical pricing factors in section 3.1.4 showed several instances of how human capital, in the form of pricing related skills, affects pricing. Dutta et al (2002) specifically highlight the role of human capital in enabling understanding of more broad or complex issues that cannot be run according to automated procedures. Further, the case-study by Dutta et al (2003) identifies numerous pricing related skills and know-how. Examples are skills/know-how related to: competitive products/prices, system development, pricing strategy, use of databases, financial analysis, price sensitivity analysis, scenario analysis, price changes and customer response, internal biases and customer relationships, customer negotiation strategy, and cross-functional negotiation expertise. Other authors highlight similar aspects of human capital in pricing. Issues that fall under the heading of human capital are, for example, higher order thinking skills (Urbany, 2001), and talent (Richards et al, 2005).

## 3.5 Preliminary pricing capability framework

In section 1.3, the aim of the study was stated as “to develop the concept of firm pricing capability and explore the mechanisms connecting such a capability with firm performance”. The approach chosen for addressing this issue can be summarized in a number of steps. In section 2.1, the general notion of resources was introduced together with the mechanisms governing the generation, sustainability, and appropriation of economic value differentials (economic rent). Section 2.2 presented a review of prior studies on organizational capabilities along with definitions of key concepts. Section 2.3 introduced the concepts of deployment and adaptation in order to position the concepts of organizational capabilities relative to activities/business processes, competitive strategy

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<sup>23</sup>See also Schultz (1961) and Becker (1962) for seminal contribution to the notion of human capital.

and industry. Section 3.1 reviewed prior literature and studies on pricing. The review of prior studies led to the formulation of tentative desired ends of pricing capability in section 3.2. Following the same logic, five different pricing activities were suggested in section 3.3. Finally, section 3.4 outlined three types of pricing capability elements. This section brings these different strings together in an integrative effort that summarizes the state of current research and provides a conceptual foundation for further empirical inquiry.

### **3.5.1 Strategic relevance, structure and dynamics of pricing capability**

A representation of the preliminary pricing capability framework, as outlined throughout Chapter 2 and 3, can be found in Figure 3.1. The primary aim of the preliminary pricing capability framework is to generate a first conceptual apparatus for understanding pricing capability based on research in strategic management and pricing. Figure 3.1 shows the causal relationship between pricing capability elements, pricing activities, and outcomes at the policy and market level, as outlined throughout this chapter. As can be seen in Figure 3.1, concepts and relationship follow the basic structure of the integrative capability framework developed in Chapter 2 (Figure 2.2).

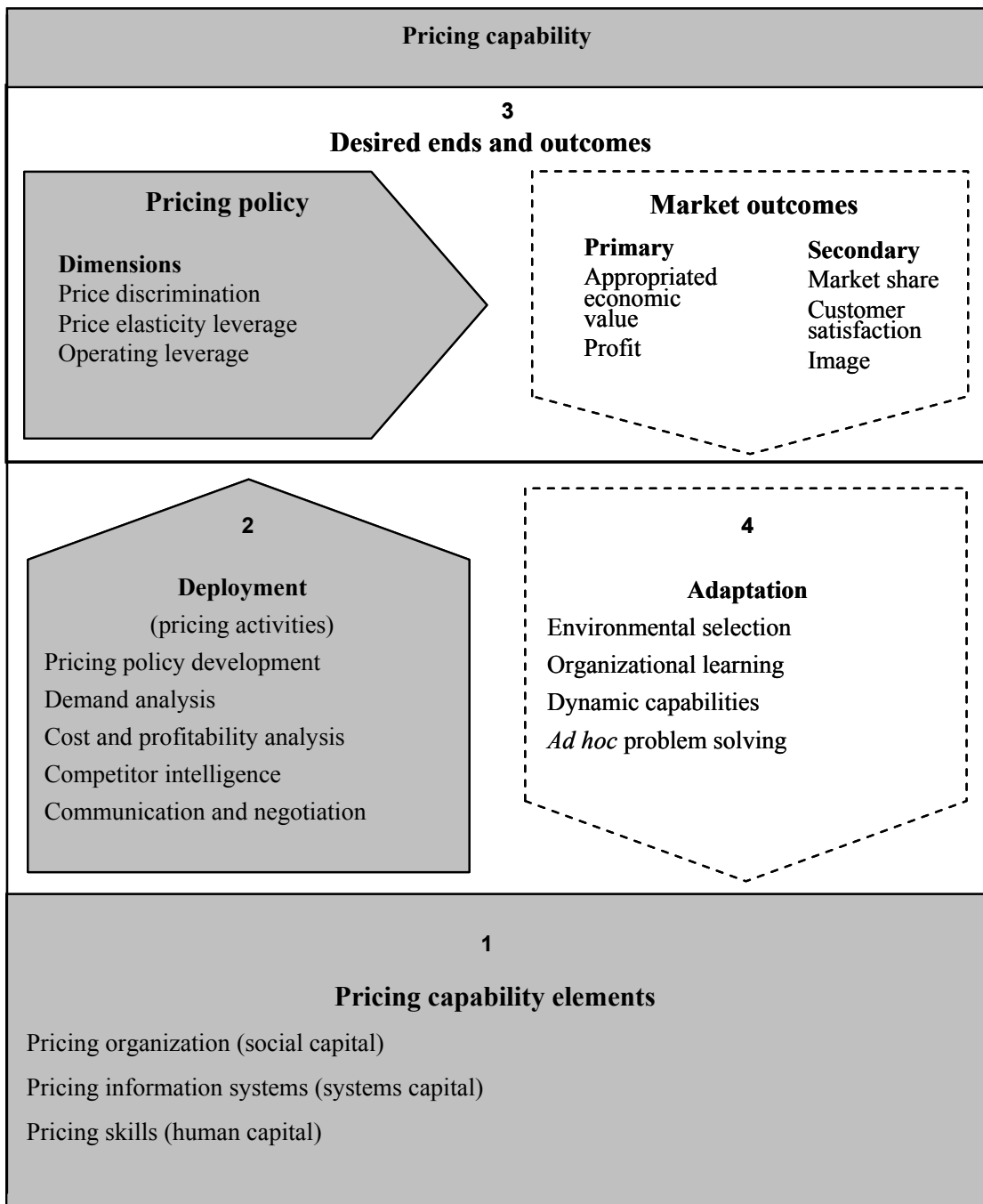


Figure 3.1 Preliminary pricing capability framework.



The content and causality of the preliminary pricing capability framework illustrated in Figure 3.1 should be understood in the following way:

1. **Pricing capability elements** can be classified as: (a) pricing organization (social capital), (b) pricing information systems (systems capital), and (c) pricing skills (human capital).
2. Capability elements are deployed towards the attainment of a desired strategy/policy or market outcome through a particular set of **pricing activities**. The literature review identifies five different activities: (a) pricing policy development, (b) demand analysis, (c) cost and profitability analysis, (d) competitor intelligence, and (e) communication and negotiation.
3. The outcome of the five identified activities are, in terms of **pricing policy**: (a) price discrimination, (b) price elasticity leverage, and (c) operating leverage, which in terms of **market outcomes** correspond to differential levels of appropriated economic value and firm profits (beyond these two related primary outcomes a large variety of secondary outcomes can be posed, such as; market share, customer satisfaction, image, etc).
4. Conditions external to the focal capability, and prior outcomes of the deployment process, cause **adaptation** of pricing capability elements. Adaptation follows four main mechanisms: (a) environmental selection, (b) organizational learning, (c) dynamic capabilities, and (d) *ad hoc* problem solving.

As indicated by the highlighted areas in the preliminary pricing capability framework, this study is delimited to the deployment (rather than the adaptation) of pricing capability and the functional relationship between pricing capability elements, pricing activities, and pricing policy. Hence, adaptation mechanisms and market outcomes are included in the preliminary framework as contextual factors for the purpose of providing conceptual comprehensiveness, but will not be elaborated on empirically. This delimitation is motivated by the focus on the strategic dimensions of pricing capability (what Porter terms the cross-sectional problem in strategic management, see section 2.3.2) rather than on the longitudinal process by which pricing capability is built.

### 3.5.2 Role of the preliminary pricing capability framework

The preliminary pricing capability framework illustrated in Figure 3.1 should be seen as an attempt to capture what is known in prior content research on pricing in an integrated strategy framework that is suitable for further empirical examination. In this sense, the ambition behind Figure 3.1 is to present a starting point that grounds further inquiry in current theory and research. Beyond this primary purpose, the framework also constitutes a contribution in its own right. This contribution can be seen on three different levels.

First, the framework illustrates a relatively novel perspective on organizational capabilities as primarily defined by a particular functional field, such as pricing. By explicitly cross-fertilizing more formal research on organizational capabilities with practically driven literature on pricing, the concept of organizational capabilities is made more operational, both in terms of further empirical research and managerial implications. Basically, the point is that the concept of organizational capabilities can be made more tangible by grounding it in a certain empirical practice and a certain functional field of research.

Second, the framework's explicit focus on how capability elements are deployed in activities towards the attainment of certain desired ends in terms of strategies/policies and market outcomes, emphasizes the importance of capability elements, and the mechanisms connecting them with desired ends, as fundamental units of analysis in strategic management. Thus, the propositions developed in the framework address, not only *what* element cause variation in the degree to which desired ends are attained, but also, *how* this is accomplished. Further, the framework integrates mainstream research in strategic management, which has been primarily focused on the cross-sectional problem of strategic management (i.e. deployment processes), with research on organizational capabilities, primarily focused on the longitudinal or dynamic aspects of competition (i.e. adaptation processes). Thus, the framework highlights both how capability elements affect desired ends at a given point in time, and how these are accumulated over time. Improving the understanding of different types of organizational capabilities from both these perspectives is crucial for explaining the strategic value of these capabilities.

Third, by integrating price management literature with strategic management theory and the concept of organizational capabilities, the framework also contributes to the price management literature by organizing contemporary insight in pricing into three fundamental levels of analysis: resources (pricing capability elements), activities (pricing activities), and strategy/industry (pricing policy). This enables a consistent overview of the field in which pricing related problems and their associated solutions can be identified. Further, the preliminary pricing capability framework specifically addresses issues related to firm distinctiveness and heterogeneity by its emphasis on the barriers that firms face in designing pricing activities or implementing pricing policies. This contribution relates directly to the different theoretical assumptions present in the price management literature, which is briefly discussed below.

The dominant unit of analysis in the price management literature is activities stated in the form of normative advice (if you want to increase your profitability your firm should do this!). Implicit in this advice is an assumption that firms are largely free from important constraints in designing activities and implementing strategies. An important contribution of the preliminary pricing capability framework is to present the performance of key pricing activities and subsequently the implementation of pricing policy as dependent on, and restrained by, the firm's endowment of pricing capability elements. On these issues, the price management literature illustrates the influential heritage from neoclassical economic theory of outlining an optimal static state rather than a dynamic system of factors. This attribute of the price management literature is partly traceable to the underlying assumption of objective and unconstrained opportunity sets that allow firms to reconfigure current activities and strategies relatively independent of the environment, historical trajectories and endowments.

By relaxing the assumptions highlighted above, insights can not only be made regarding what type of pricing related problems firms are most likely to face, but also, how the concept of pricing capability can be understood relative to established explanations of firm performance in strategic management. The purpose of the next chapter is to pursue this argument at greater length.

## 4. Agency, uncertainty and pricing capability

The theoretical framework posits a somewhat idealized picture of organizational behavior that gives priority to the functional relationships between concepts over a description of the many procedural factors influencing firm behavior. This is a reflection of the fact that contemporary strategic management theory and the price management literature to some extent have inherited simplifying assumptions from neoclassical economic theory. As will be shown in this chapter, relaxing these assumptions plays an important role in enabling a proper understanding of pricing capability and the role of value appropriation in strategic management theory. The following chapter will position the treatment of pricing capability in a broader theoretical context that acknowledges the nature and limitations of goal-oriented behavior, and its consequences in terms of uncertainty and imperfect competition.

### 4.1 Goal-oriented organizational behavior

#### 4.1.1 Agency and rationality

This thesis sets out a perspective on firms as primarily governed by purposive behavior (Simon, 1945). Purposiveness rests on a hierarchical notion of the decisions or activities taking place in firms where “[...] each step downward in the hierarchy consisting in an implementation of the goals set forth in the step immediately above. Behavior is purposive in so far as it is guided by general goals or objectives; it is rational in so far as it selects alternatives which are conducive to the achievement of the previously selected goals.” (Simon, 1945/1997:4). According to Simon (1945) the selection of goals<sup>24</sup> can be divided into two separate types based on whether the selection process involves what is referred to as value judgments or factual judgments. What separates

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<sup>24</sup>The terms “goal”, “objective” or “end” are used interchangeably.

the two types of judgment is the mechanism of selection and their relative place within the means-end hierarchy.

Each decision involves the selection of a goal, and a behavior relevant to it; this goal may in turn be mediate to a somewhat more distant goal; and so on, until a relatively final aim is reached. In so far as decisions lead toward the selection of final goals, they will be called “value judgments”; so far as they involve the implementation of such goals they will be called “factual judgments. (Simon, 1945/1997:4)

In order to understand organizational means-end hierarchies one must separate the more final desired ends, which are chosen as an act of value judgment based on that they are valuable in themselves, from goals which are selected based on a factual judgment or anticipation that they will contribute to a more final desired end. According to Simon (1945), most objectives or activities performed within an organization derive their value from a certain means-end hierarchy that connects them with objectives or activities that are valued in themselves. The distinction between elements in the means-end hierarchy that are valued in themselves from elements that are only valued as far as they are expected to lead to desired ends, is an important one because it specifies an important boundary condition for rationality. According to Simon (1945/1997:84), “[...] rationality is concerned with the selection of preferred behavior alternatives in terms of some system of values whereby the consequences of behavior can be evaluated.”, and hence, rationality is not strictly speaking about the more final goals that organizations or members of organizations set for themselves, but rather the internal consistency among elements in an established means-end hierarchy that is ultimately defined by a certain value judgment. This raises the question of whose judgment firms are acting on. If firms are to be viewed as purposive entities, as suggested above, there need to be certain organizational objectives present towards which joint organizational action can be directed. This organizational objective does not by necessity perfectly match all the personal objectives of persons involved in the organization’s activities. Rather, it indirectly functions as an objective for organizational actors that binds together organizational activity and allows actors “[...] to achieve a satisfaction of their own diverse personal motives.” (Simon, 1945/1997:15).

Positing the notion of organizational objectives as an important factor for the behavior of organizations does not mean that rationality is reserved for deliberate and perfectly informed behavior towards these objectives. In fact, the concept of rationality can be qualified as; “[...] ‘objectively’ rational if in fact it is the correct behavior for maximizing given values in a given situation. It is ‘subjectively’ rational if it maximizes attainment relative to the actual knowledge of the subject. It is ‘consciously’ rational to the degree that the adjustment of means to ends is a conscious process. It is ‘deliberately’ rational to the degree that the adjustment of means to ends has been deliberately brought about (by the individual or by the organization). A decision is ‘organizationally’ rational if it is oriented to the organization’s goals; it is ‘personally’ rational if it is oriented to the individual’s goals” (Simon, 1945/1997:84-85). Hence, the concept of purposive organizational behavior and rationality, as defined here, acknowledges that there are political, cognitive and informational limitations to objectively rational behavior.

#### 4.1.2 Nature, emergence and diversity of objectives

The notion introduced by Simon (1945) of organizational objectives as what binds together and coordinates the diverse personal goals that exist in organizations, according to some “common denominator”, has been elaborated upon by Cyert & March (1963). The behavioral theory of the firm developed by Cyert & March (1963), like Simon’s (1945) theory of rationality and organizational decision-making and Nelson & Winter’s (1982) evolutionary economic theory, sets out to contrast and complement orthodox neoclassical economic theory of the firm. Focal to the behavioral theory of the firm are the concepts of organizational goals, expectations, choice and control. According to Cyert & March (1963/1992:22), “[...] these are the four major sub theories of a behavioral theory of the firm. A theory of organizational goals would consider how goals arise in an organization, how they change over time, and how the organization attends to them. A theory of organizational expectations would treat how and when an organization searches for information or new alternatives and how information is processed through the organization. A theory of organizational choice would characterize the process by which the alternatives available to the organization are ordered and a selection made among them. A theory of

organizational control would specify the differences between executive choice in an organization and the decisions actually implemented.”.

Cyert & March (1963) describe goals as a result of a continuous bargaining-learning process. More specifically, goals are seen as emerging from three sub processes: (1) the bargaining between organizational actors as to determine the composition and general terms that satisfy the demands of the individual actors, (2) the internal control process by which goals are stabilized, and (3) by the continuous adjustment of the agreement to experience and the changing environment that the organization is operating in. As indicated above, the primary process by which goals arise is by means of a continuous bargaining process taking place between involved individuals. Cyert & March (1963/1992:33) explain this process in terms of the distribution of side payments which may take the form of “[...] money, personal treatment, authority, organization policy, and so forth”. However, the agreement that regulate the distribution of side payments is viewed as incomplete in the sense that it does not anticipate all future situations and preferences of the involved parties. According to Cyert & March (1963), this motivates the development of a mutual control system that enforces the basic agreement (examples are the allocation of formal functions, the budget process, etc.). The third and last sub-process of the goal formation process is related to the fact that although agreements are considerably stabilized by the type of internal processes discussed above and the tendency of organizational arrangements to get institutionalized or taken for granted<sup>25</sup> (e.g. Nelson & Winter, 1982, and the concept of “routines”), the demand of individual actors changes with experience and exposure to changes in the environment.

The framework suggested by Cyert & March (1963) posits that the coalitions created around a certain set of goals (i.e. organizations) are viable if the payments made to involved actors satisfy their demands,

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<sup>25</sup>Cyert & March (1963/1992:119) use the concept of “standard operating procedures” which are the “[...] the memory of an organization. Like any other memory or learned behavior, standard operating procedures change over time at varying rates. Some rules seem to change frequently; others appear to have been substantially unchanged for as long as the organization has existed. Because many of the rules change slowly, it is possible to construct models of organizational behavior that postulate only modest changes in decision rules.”.

and are therefore adequate to keep them in the coalition. According to Cyert & March (1963), these demands on the coalition tend to adjust over time to the actual payments made and externally available alternatives. So, there arises a long-run tendency for actual payments and demands to converge. In this sense, the mechanism is analogous to “factor prices” in neoclassical economic theory. However, in Cyert & March’s (1963) theory, imperfections in “factor markets” dominate the behavior due to the fact that; (1) information on actual “factor prices” is unreliable, often misinterpreted and hard to obtain, (2) the information must be sought rather than obtained automatically, and (3) the adaptation of demand is slow-moving. According to Cyert & March (1963/1992:42) these imperfections result in a “[...] disparity between the resources available to the organization and the payments required to maintain the coalition. This difference between total resources and total necessary payments is what we have called organizational slack. Slack consists in payments to members of the coalition in excess of what is required to maintain the organization”. In neoclassical economic theory organizational slack is assumed to be zero because of the assumption of perfect information and objectively rational behavior. The fact that organizational slack is not zero, given the propositions of the behavioral theory of the firm, presents a number of opportunities for understanding actual organizational behavior that does not count as strictly productive.

#### 4.1.3 The role of organizational endowments

The limitations on objectively rational behavior accounted for above qualify the means-end relationships outlined in this thesis in terms of actors’ inherent ability to pursue certain goals and the nature and diversity of these goals. However, these limitations have further implications than just posing an immediate restriction on the individual decision, or the performance of an activity. The set of possible alternatives perceived by organizational actors is, namely, restricted by current organizational endowments. Penrose (1959) treats this issue, in her inquiry into the mechanisms behind firm growth, as a matter of how the environment is represented. According to Penrose (1959/1995:5), “[...] the environment is treated, in the first instance, as an “image” in the entrepreneur’s mind of the possibilities and restrictions with which he is confronted, for it is, after all, such an “image” which in fact determines a man’s behavior; whether experience confirms expectations is another story”.



Possible future productive activities are seen as limited by what Penrose (1959) terms the subjective productive opportunity (set), which is portrayed as a result of the services rendered by the firm's current resource endowment.

Although the 'objective' productive opportunity of a firm is limited by what the firm is able to accomplish, the 'subjective' productive opportunity is a question of what it thinks it can accomplish. 'Expectations' and not 'objective facts' are the immediate determinants of a firm's behaviour, although there may be a relationship between expectations and 'facts' – indeed there must be if action is to be successful, for the success of a firm's plans depends only partly on the execution of them and partly on whether they are based on sound judgment about the possibilities for successful action. In the last analysis the 'environment' rejects or confirms the soundness of the judgment about it, but the relevant environment is not an objective fact discoverable before the event; economists cannot predict it unless they can predict the way in which a firm's actions will themselves 'change' the relevant environment in the future. (Penrose, 1959/1995:41)

The resources of a firm and the subjective productive opportunity arising from them, in Penrose's (1959) terminology, play a similar role as do concepts used by different authors to understand the opportunities and limitations open to firms at a certain point in time. Other examples of factors with a similar function are: "routines" (Nelson & Winter, 1982), "standard operating procedures" (Cyert & March, 1963), and "habit" (Simon, 1945). What these factors seem to have in common is that they arise from the firm's interaction with its environment and channel attention (Simon, 1945) or expectations (Penrose, 1959; Cyert & March, 1963) in certain directions according to experiential and habitual patterns. The view presented above and the perspective on organizational behavior adopted in this thesis is best summarized by Simon (1945/1997:102) who states that "[...] in actual behavior, as distinguished from objectively rational behavior, decision is initiated by stimuli which channel attention in definite directions, and that the response to the stimuli is partly reasoned, but in large part habitual. The habitual portion is not, of course, necessarily or even usually irrational, since it may represent a previously conditioned adjustment or adaptation of behavior to its ends".

#### 4.1.4 Firm-level effects of limitations in rationality and information

A key point of this section is that firms are viewed as fundamentally purposive. Thus, they act to the best of their ability to achieve organizational objectives, which emerge as a temporary result of a continuous bargaining-learning process between organizational members based on their personal goals. The definition of goals and the means that are conceived as necessary for their attainment are based on value and factual judgment that form shared means-end hierarchies coordinating organizational action. The nature of the casual relationships posed by the means-end hierarchies are often imperfectly represented by the organization as a whole due to individuals' conception of purpose, incomplete foresight and knowledge of consequences, limited attention, and the organizational endowment of skills, routines, habits and assets. Within these restraints firms or organizations are viewed as acting rational-goal oriented.

The preceding discussion raises the question of whether any form of a more final organizational objective can be assumed when studying typical business firms. The type of firms addressed in this thesis are seen as primarily profit-seeking in the sense that, in the long-run, the owners of the firm will demand competitive reimbursement for their capital investment, the managers will demand competitive salaries and working conditions, customers will demand competitive product features at competitive prices, and so on. Hence, firm behavior will tend to be profit-seeking since the demands placed on them by involved actors will reflect expectations that are based on a comparative judgment of the size of payments<sup>26</sup>. However, as pointed out before, imperfect information and limited rationality create slacks of unclaimed resources that provide room for behavior that satisfies local or strictly personal motives and other types of non-productive behavior.

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<sup>26</sup>The point made basically just stresses that there are competitive forces at work regarding all input factors, whether it is the competition for capital, labor, managerial services, etc.

## 4.2 Imperfect competition and uncertainty

The theoretical problem posited throughout this thesis relates to the basic characteristics of mainstream strategic management theory, its ability to explain the existence of firm-level pricing capability, and the particular content or structure of such a capability. It has been argued that due to the firm-level/value creation vs. industry-level/value appropriation dichotomy established by the dominance of the RBV and IO in strategic management research, established explanations fail to cover important research positions related to firm-level/value appropriation. This presents a theoretical gap in mainstream strategic management research that leaves established explanations of firm performance unable to explain empirical phenomena most properly placed within this position. It is further argued that pricing capability constitutes one such empirical phenomenon.

Following the introduction of the theoretical problem in Chapter 1, attention in Chapter 2 was shifted towards the relevance and structure of organizational capabilities. Section 2.1 outlined how economic value created by firm resources and capabilities is sustained and appropriated by different economic actors. Section 2.2 provided a definition of the concept of organizational capabilities and outlined capability structures. Section 2.3 placed the concept of organizational capabilities in a broader context showing how it, through the processes of deployment and adaptation, relates to value-chain activities, competitive strategy, and industry. Finally, the previous section addressed the nature of economic agency, adopting a perspective on economic actors as limitedly rational and acting based on imperfect information.

Returning to the fundamental question of how firm endowments, such as pricing capability, relate to value appropriation processes and explanations of firm performance in strategic management, this section proceeds from the notion of limited rationality developed in the previous section and traces its consequences for strategic management theory and the concept of pricing capability.

### 4.2.1 Neoclassical foundations in strategic management

The treatment of competition in mainstream strategic management theory rests on the foundation of neoclassical economic theory. In the

case of the RBV, the link to neoclassical economic theory primarily shows itself in the focus on economic rent as the prime dependent variable (Lippman & Rumelt, 2003; Peteraf & Barney, 2003). In the case of IO, the link to neoclassical theory is more direct. Classic IO, along the lines of Bain (1956) and others, provided a direct application of neoclassical economic theory to industry analysis, using industry entry barriers and firm size as key factors that allow industries to drift away from the state of perfectly competitive equilibrium stipulated by neoclassical economic theory.<sup>27</sup> Hence, both the RBV and IO draw heavily on the neoclassical tradition in terms of assumptions and concepts used to explain firm performance. Among the assumptions and concepts that have been partially or completely inherited into contemporary strategic management, the following stand out as particularly important: (A) perfect rationality/information of economic actors, (B) equilibrium, and (C) economic rent.

*Perfect rationality/-information of economic actors* – Neoclassical economic theory models firms and economic actors as acting with perfect foresight regarding the consequences of their own action and that of others. Hence, conduct is always perfectly congruent with objectives and the information needed to achieve these objectives is instantly available at zero cost. Even though this view on agency has been reviewed and seriously contested by scholars commonly cited in strategic management research (perhaps most notable by Knight, 1921; Simon, 1945; Penrose, 1959; Cyert & March, 1963; Nelson & Winter, 1982), it still plays an important role in how contemporary theory is constructed.

*Equilibrium* – The notion of general equilibrium has been defined as a state in which “[...] all products are produced efficiently and all factors are being used efficiently” (Mathews, 2006:25). Hence, equilibrium specifies one particular price (and produced quantity) at which the economy is balanced and total welfare maximized. The state of equilibrium is thus Pareto efficient in that no other feasible allocation will make everyone better off (Arrow, 1974). Theorizing based on the no-

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<sup>27</sup>This model of the firm and competition was later inherited by revisionist IO-theorists, such as Porter (1980), adding notions of intra-industry mobility barrier and strategic groups (Caves & Porter, 1977; Porter, 1979).

tion of equilibrium produces three different competitive situations to consider (Mathews, 2006):

- *Perfectly competitive equilibrium* is defined as a state where the economy has balanced out, without frictions or barriers, at a competitive price that equals marginal cost of production, thus reducing all profits to zero.
- *Imperfectly competitive equilibrium* is defined as a state where the economy has balanced out at competitive price levels, but due to frictions or barriers<sup>28</sup>, particular positions in either the factor or product market are protected from competition. This creates an outcome where economic rents can be earned.
- *Disequilibrium* is defined as a dynamic state of change and imbalance, away from perfect or partial equilibrium, created by economic change and frictions in the adaptive process of the economic system.

In general, most contemporary theorizing in strategic management operates at the state of imperfectly competitive equilibrium. Within the IO-tradition, this takes the form of particular product market positions protected by industry entry barriers (Bain, 1956) and intra-industry mobility barriers (Caves & Porter, 1977), while in the RBV, the imperfectly competitive equilibrium is described in terms of factor market positions similarly protected by factor immobility, non-substitutability and inimitability (Barney, 1991; Peteraf, 1993; Peteraf & Barney, 2003).

*Economic rent* – Economic rent exists only under the conditions of imperfectly competitive equilibrium and are defined as "[...] a payment for a factor in excess of that minimally necessary to call forth its services" (Lippman & Rumelt, 2003:904). Generally, economic rent is due to scarcity or inelasticity of supply; either in the product or factor market. To be put in more practical terms, economic rents are either generated by a restriction of output in the product market, such as monopoly pricing (Monopoly rent), or by use of superior scarce production factors (Ricardian rents). Primarily because the emergence and

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<sup>28</sup>Examples of such frictions or barriers are: *entry barriers* (Bain, 1956), *mobility barriers* (Caves & Porter, 1977), and *uncertain imitability* (Lippman & Rumelt, 1982).

subsequent dominance of the RBV, issues related to the generation, sustainability, and appropriation of economic rent has positioned themselves at the core of contemporary strategic management theory. In fact, scholars such as Amit & Schoemaker (1993) have posited the search for economic rent as one of the key challenges of strategic management, while other scholars, such as Peteraf & Barney (2003:310), have outlined the RBV as “[...] a theory of rents as well as a theory of sustainable competitive advantage.”. The most interesting consequence of this development is perhaps not in the concept of economic rent itself, but rather the fact that it commits strategic management theory to the notion of (imperfectly) competitive equilibrium and its underlying treatment of agency and economic development (Mathews, 2006).

#### 4.2.2 Agency and change

Important challenges to neoclassical economic theory, which was outlined above as an important fundament of contemporary mainstream strategic management theory, center on two issues related to the nature of economic agency (see Simon, 1945) and the presence of change or economic development (Schumpeter, 1934).

The level of rationality in organizational and economic behavior (i.e. agency) was addressed in section 4.1 based on theories developed by Simon (1945), Penrose (1959), and Cyert & March (1963). The picture of behavior emerging from these accounts is consistent. Economic actors behave rationally or purposeful in the sense that they act according to established means-end relationships (Simon, 1945). However, rationality of economic actors is not objective, but limited by the diversity of objectives within organizations (Cyert & March, 1963), firm resource endowments (Penrose, 1959), habit (Simon, 1945), and standard operating procedures/routines (Cyert & March., 1963; Nelson & Winter, 1982). Hence, the activities of the firm are limited by what Penrose (1959) terms the subjective productive opportunity (-set), which is portrayed as a matter of perception rather than objective fact and is a result of the services rendered by the firm’s current resource endowment (in terms of knowledge, assets or routines).

What then are the consequences of the limitations to agency outlined above? As was pointed out early by Knight (1921) there is in terms of consequences a tight link between the level of foresight and information

of economic actors, and the presence of change in the economic system (i.e. economic development). The concept of economic development has been made most famous by the theorizing of Schumpeter (1934) who portrayed it as endogenous and supply-driven changes in technology that stemmed out of a recombination or different use of productive factors. Examples of this kind of change are the introduction of a completely novel product, a new method of production, new market, new source of supply, and the use of a new form of organization. According to Schumpeter, it is these changes that give rise to the discontinuity that keeps the economy from stabilizing at competitive equilibrium.

The Schumpeterian notion of economic development introduces a new form of unpredictability to the environment that firms operate in. This unpredictability is caused by entrepreneurial initiatives, but it also constitutes the key element of the type of situations in which new entrepreneurial opportunities arise. Viewing firms as operating under such circumstances naturally presents different challenges and opportunities compared to the conditions of the imperfect equilibrium setting which is used as the starting point for theorizing in the RBV or IO. Particularly the coupling of economic actor's limited rationality/information and the presence of change in the economic environment produces a state of uncertainty that is central to the understanding of competition and phenomenon such as pricing capability.

#### 4.2.3 Knightian uncertainty

The notion of uncertainty as an important concept for understanding competition and the existence of profits was introduced by Knight (1921). The prime contribution of Knight (1921) was the distinction between measurable risk and immeasurable risk (i.e. "uncertainty"), and the linking of the latter to the existence of profits. The basic argument was that profits did not, as contemporary economists thought, arise out of economic change or friction (preventing the economic system from stabilizing at equilibrium), but out of a fundamental form of uncertainty regarding the future, inherent in business, which causes a divergence of actual from expected conditions.

The concept of Knightian uncertainty (henceforth uncertainty) is grounded in a discussion of the actual nature of human agency which Knight contrasts with neoclassical assumptions about practical omnis-

science and its most important consequence; perfectly competitive equilibrium. Knight's argument is built on a critique of overlapping themes: (A) the idea that change and friction can cause profits to arise, (B) the presence of perfectly competitive equilibrium, and (C) the idea that economic agents act with perfect foresight and information (practical omniscience).

*Economic change and friction as causes of profits* – According to Knight (1921), neither economic change nor friction in the system can cause profits to arise if these conditions are not coupled with ignorance of the future.<sup>29</sup> Rather, the relationship between economic change and profit is indirect and tied to the uncertainty that the change brings about. Hence, change is a necessary, but not sufficient condition for profit because in a situation without change of some kind “[...] there would, it is true, be no profits, for if everyone moved along in an absolutely uniform way, the future would be completely foreknown in the present and competition would certainly adjust things to the ideal state where all prices would equal costs.” (Knight, 1921/2002:37).

*The presence of perfectly competitive equilibrium* – According to Knight (1921), the role of (perfectly competitive) equilibrium has been overstated in neoclassical theory as a condition that is always present or towards which the economy is always verging. Rather, the equilibrium condition is to be viewed as a theoretical result of a tendency in the economy to which reservations regarding unpredictable influences must be made. Hence, according to Knight (1921), even though the tendency towards equilibrium is valid, this condition must be seen as existing in the future rather than as a current state of affairs.

*Perfect foresight and information* - An important reason why Knight (1921) is critical of how equilibrium has been treated in economic theory relates to how economic agency is conceived. The criticism focuses on the classical assumption of “[...] practical omniscience on the part of every member of the competitive system.” (Knight, 1921/2002:197).

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<sup>29</sup>This relates closely to the core of the RBV and Barney's (1986) argument that firms can only acquire superior resources at a price that will not offset future revenues attributable to that resource if they hold superior information or are simply lucky. Hence, without ignorance of the future, *ex ante* factor market competition will offset all future payments/rents to superior resources.



It is based on this critique that Knight (1921) develops the concept uncertainty as a fundamental element of business.

Knight (1921) separates three kinds of probability assessments on which decisions are based: (A) *a priori* probabilities, (B) statistical probabilities, and (C) estimates. *A priori* probabilities refer to assessments based on logic, which requires no statistical investigation. Statistical probabilities refer to an empirical evaluation based on frequency. And finally, estimates refers to assessments where there is no valid basis for classifying instances, hence, making both a priori and statistical assessment impossible. The third type of probability assessment (estimates) is associated with what Knight (1921) terms true uncertainty in that it cannot in a meaningful way be reduced to an objective probability. Estimates thus function as a form of intuitive estimations of business situations that due to their uniqueness or lack of sufficient homogeneity of instances to form groups resist statistical assessment. According to Knight (1921), it is this type of probability or uncertainty that has been neglected in economic theory and which is interfering with the workings of models of perfect competition in neoclassical economics and which produces a state of imperfect competition in which profits can exist.

Viewing a competitive system from the perspective of uncertainty outlined above, two sets of consequences can be outlined. First, on an industry level, competition will remain imperfect to the extent that business arrangements are made under uncertainty regarding a future state of affairs. Second, on a firm level, the conditions outlined above give rise to Knightian profits, a residual over (or under) factor payments attributable to the presence of uncertainty.

Applying the theory of uncertainty presented above in a traditional business setting, there are two principal forms of uncertainty, or types of foresight, that firms must deal with: (A) demand (customer wants – type of demand and the firms success in satisfying it) and (B) supply (production – quantity and quality of goods given a certain expenditure of resources). Knight (1921) outlines six (partly overlapping) methods based on which firms can deal with the type of fundamental uncertainty associated with business; either by reducing it, turning it into a measurable risk, minimizing the effect of negative outcomes, or reducing the probability of a negative outcome.

1. Consolidation
2. Specialization
3. Control of the future
4. Increased power of prediction
5. Diffusion of consequences
6. Directing activity away from uncertainty

As observed by Knight (1921), the six different methods (or social structures as termed by Knight) for dealing with uncertainty is to some extent overlapping and logically connected. *Consolidation* involves eliminating uncertainties by dealing with groups of cases rather than with individual ones, thus turning situations that are individually uncertain into groups of situations for which outcomes can be represented by a probability distribution. Examples of such business practices might be the estimation of customer wants and price elasticity on an aggregate or segment level rather than on an assessment of individual customers, the use of average cost per unit across a large number of units to forecasts production, etc. *Specialization* involves several different mechanisms. First, specialization of one person or function reduces uncertainty by mere grouping or consolidation of similar cases (according to the consolidation principle stated above). Second, by specializing a certain type of judgment to the persons or functions most capable of making correct estimates (perhaps derived from particular endowments or the mere experience of handling many similar cases) down-side risks in terms of outcome are reduced. Examples of specialization might be the organizational separation and specialization of more speculative functions within the firm, such as marketing/pricing. *Control over the future* and *increased power of prediction* are intimately tied to each other. They involve the level of knowledge held about consequences, and thus the ability to control these consequences by particular technologies, social structures, and management practice. Examples highlighted by Knight (1921) involve market forecasting or the collection, digestion and dissemination of economic information. The last two methods of reducing uncertainty are less emphasized and of a more self-explanatory nature; involving spreading negative effects of potential outcomes across different agents so as to reduce significant damage to a single agent (*diffusion of consequences*), and altogether avoiding uncertain situations (*directing activity away from uncertainty*).

As shown above, the different methods of handling uncertainty highlight the economic significance of specialized social structures, technologies, and people capable of making correct estimates, as a fundamental solution to the demand and supply related uncertainty firms face. In a way, as also noted by Knight (1921), they invoke the importance of management. Hence, based on the reasoning above, it could be argued that only with uncertainty present does it become meaningful to speak of better or worse management.<sup>30</sup>

#### 4.2.4 Uncertainty and pricing capability

This section has tried to trace some of the consequences that limited rationality coupled with economic change has for strategic management. First, some basic assumptions of neoclassical economic theory were outlined and discussed while focusing particularly on how these assumptions have been inherited by mainstream strategic management theory. Second, the concept of economic development was introduced, which coupled with the notion of limited rationality, produces a fundamental form of uncertainty regarding the future. In a traditional business setting, firms face two principal forms of uncertainty related to the future demand and supply characteristics that will be facing the firm. A fundamental challenge to firms revolves around handling these uncertainties. Implications of uncertainty are, on an industry level, that markets remain imperfect. On a firm-level, imperfections give rise to firm profits (or losses) as a residual over/under factors payments.

Assumptions inherited from neoclassical economic theory regarding the nature of agency and the absence of economic change have caused mainstream strategic management theory, more specifically the RBV and IO, to leave out the effects of uncertainty on the competitive process. While perhaps some business phenomena can be successfully stud-

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<sup>30</sup>This raises the question to what extent uncertainty has in fact been emphasized in mainstream strategic management theory as an important factor for determining the outcomes of competition. Now, this has been the case, for example in the form of *uncertain imitability* (Lippman & Rumelt, 1982), *causal ambiguity* (Dierickx & Cool, 1989), or *uncertainty* (Foss & Knudsen, 2003). However, in most cases, uncertainty has been portrayed as an exception or antecedent of mobility barriers in otherwise competitive markets, rather than as a naturally occurring attribute of business.

ied without consideration of the effects of uncertainty, other phenomena are poorly or not at all captured by these explanations. Hence, without a clear and explicit concept of uncertainty, which as pointed out by Knight (1921) gives rise to firm-level information and control related problems; issues related to allocation or bargaining are easily seen as unproblematic. This is an important reason why contemporary strategic management theory fails to cover important research positions related to firm-level value appropriation, leaving a theoretical gap in mainstream strategic management theory where empirical phenomena, such as pricing capability, are most properly placed.

Firm-level pricing capability revolves around uncertainty and the challenges it creates for the individual firm. First, firms are faced with an informational uncertainty regarding the level of perceived benefit that individual customers or customer segments place on each individual product being sold. Second, firms are faced with an informational uncertainty regarding the cost of production of a particular product. Third, firms are also faced with what might be termed an organizational or control related uncertainty regarding the future behavior of employees responsible for setting and negotiating prices. Pricing capability can be understood as an ability of firms to handle, and perhaps reduce, these particular uncertainties.

The above discussion of uncertainty and potential explanations of the concept of pricing capability focuses on the particular challenges that present themselves to firms when pricing their products. However, the issue can also be viewed from another perspective. Simply put, the whole concept of a strategically relevant pricing capability is dependent on the existence of uncertainty. Firms aiming to excel at pricing are dependent on there being inherent demand and supply related uncertainties at work in their industry that prevents competition from taking its course, and thus eliminating the very slacks<sup>31</sup> of economic surplus that these firm set out to capture. It is the existence of these slacks in the seller-buyer relationship that heightens the importance of pricing capability and provides an opportunity for firms to make investments that strengthen their bargaining position and enable them to build an advantage over competitors in the field of pricing.

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<sup>31</sup>Cf. *organizational slack* (Cyert & March, 1963:42).

This section completes the theoretical review and inquiry into the strategic relevance and structure of pricing capability. The aim of the next three chapters is to empirically examine this notion based on the preliminary pricing capability framework illustrated in the previous chapter, and thus refine the broader theoretical argument outlined in this present chapter.

## 5. Method

The primary aim of the method chapter is to make choices regarding research design, data collection, and data analysis explicit to readers so that they may evaluate the results of the study. Following this logic, the main part of the method chapter consists of a series of “choices” accounted for and discussed.

### 5.1 Background

The thesis project was initiated in the fall of 2003 as part of a learning partnership (the Paper & Packaging Program) between SCA Packaging (SCAP) and the Institute of Economic Research at Lund University. At the time of the start-up of the thesis project, the Paper & Packaging program had already been running for several years producing research in several different fields related to strategy and management. Examples of this are Kalling (1999) on the strategic importance of information technology, Knutsson (2000) on transaction cost analysis and vertical integration, Jönsson (2006) on the supplier value of collaborative e-business, Nordström (2006) on manufacturing capability, and Gibe (2007) on the microstructure of collaborative e-business capability.

The Paper & Packaging programme and the collaboration with SCAP provided practically unrestricted access to all SCAP plants across Europe. In return, the empirical study was designed in close collaboration with SCAP managers, and the results of the empirical project were reported separately in the form of a consultant report. From an academic standpoint, this provided a valuable opportunity to validate empirical data used in the study and get an indication of the managerial relevance of the results.

## 5.2 Research design

### 5.2.1 A multiple case study design

The study follows a cross-sectional multiple case study design (Eisenhardt, 1989; Yin, 2003) of five different cases (business units) in the corrugated packaging industry. The choice of research design was primarily influenced by two types of considerations. First, the chosen research design was seen as appropriate due to the theory-developing and explorative nature of the thesis that stemmed out of the rather undeveloped and non-formal status of prior research on pricing capability and price management. Second, the case-study design was seen as useful due to its ability to capture organizational practice, or as Yin (2003:2) puts it “[...] retain the holistic and meaningful characteristics of real-life events”, an element strongly associated with the notion of organizational capabilities.

### 5.2.2 A priori defined concepts and preliminary framework

The aim of the study has, in line with the recommendations of Eisenhardt (1989) and Yin (2003), been addressed by the development of a preliminary framework containing *a priori* concepts. The role of the framework can be seen as threefold. First, the framework has played an important part in guiding the empirical investigation towards theoretically relevant phenomena. Second, the framework has provided a means of operationalizing the concept of pricing capability into observable empirical indicators (pricing capability elements, pricing activities, and pricing policy). Third, the framework constitutes a “map” of the current state of theoretical development in the research fields that the study contributes to, hence, the framework helps position the theoretical contribution of the thesis.

### 5.2.3 Unit of analysis and content of cases

The unit of analysis of this study is the pricing capability of any entity that shares the basic attributes of a profit seeking firm<sup>32</sup>. However, pric-

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<sup>32</sup>The empirical study consists of five profit centers (termed units or cases) within SCAP as the focal cases, and in that sense, the studied profit centers are not

ing capabilities are embedded in organizations. Hence, the study not only addresses what is strictly part of the pricing capability, but all parts of the organization and its environment that are relevant for a proper understanding of the focal concepts. This means that individual cases will address a variety of organizational, contextual and industry factors related to pricing capability. The totality of each of these descriptions is addressed as a “case”.

## 5.3 Data collection

### 5.3.1 Selection of cases

At the outset of the thesis project, the idea was to approach the scarcely researched concept of pricing capability by means of a multiple case-study in the corrugated packaging industry. The study’s primary focus on this industry was partly a consequence of the thesis project being initiated as a part of the learning partnership with SCAP (the Paper and Packaging Program), and partly a result of an evaluation of whether this would provide a researchable design.

The choice of delimiting the study to the corrugated packaging industry and SCAP business units can be seen as resting on four types of considerations. First, studying similar organizational units within the same industry enabled comparison between cases and minimized industry related effects on the comparisons. Second, conducting the study as part of the Paper and Packaging Program enabled, *ex ante*, identification of relevant cases, which without the knowledge of participating SCAP directors would have been difficult. Third, business units within SCAP offered a wide variety of cases in terms of local practices, history, and market contexts that could be seen as representative of the industry as a whole. The primary reason for this was the geographically decentralized organizational structure of SCAP with independently operating business units that in many cases had been recently acquired from other companies within the industry (see Chapter 6 for a more exhaustive

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strictly independent firms. However, due to the fact that all these centers exhibit a strict local history, have been recently bought or started as a green-field operations, exhibit a structure and a level of managerial discretion similar to a independent firm, the included units will be treated as individual cases.



discussion). Forth, SCAP offered complete access to chosen business units. Hence, taken together these four considerations indicated important benefits of the chosen design. These benefits were seen to outweigh the risk of insufficient variation, or difference between cases, which could have been mitigated by selecting cases from a broader set of industries.

The initial ambition of the project was to identify three cases that would exhibit a wide range of different pricing practices, and thus, different elements of pricing capability. At this stage, explorative interviews and discussions with SCAP directors played an important role for determining where these cases could be found.<sup>33</sup> In the first explorative interview with the sales and marketing director of central Europe, the unit Beta was brought forth as a strong candidate to be included. The reason for this was the unit's novel non-cost based approach to pricing and high sales margin compared to other units in middle Europe. In addition to including Beta in the study, the director argued for the need of a benchmark that would illustrate a normal approach to pricing in continental Europe (i.e. cost-plus profit pricing and a focus on efficiency). The candidate suggested for this purpose was Alfa.

The second round of explorative interviews was made with the sales and marketing director of the UK & Ireland. The director suggested Gamma as a unit in UK & Ireland that would display interesting aspects of pricing. This judgment was based on information that Gamma was operating with a novel and commercially driven approach to pricing that set it apart from other SCAP units in the UK & Ireland, and that Gamma for a longer period of time had showed prices and financial performance above the UK & Ireland average.

The third and last round of explorative interviews made in order to identify relevant cases to include in the study was made at SCAP's European headquarters in Brussels with the European financial director. The financial director, who also functioned as the "corporate sponsor" of the empirical part of the thesis project, suggested the inclusion of two more cases; Epsilon and Delta.

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<sup>33</sup>Interviews with sales and marketing director in UK & Ireland (040525), central Europe (040514) and with the Financial director of SCAP Europe (040826).

The reasons for including Delta were in part that the unit had showed higher prices and financial performance than the European average, but also that Delta, which had been acquired in 2002 from another packaging company, operated with a separate national sales organization and was pursuing what was considered a more market oriented pricing policy than was common within SCAP. The reason highlighted by the financial director for including Epsilon in the study was primarily related to the attention that the regional management had paid to pricing issues by the implementation of a national pricing model and the unit's high prices and financial performance relative to other SCAP units.

Having finished all three rounds of explorative interviews and considered the information that had been gathered on potential cases, a decision was made to extend the number of cases included in the study from three to five. This more extensive research design enabled capturing the full variety of differences and similarities between cases that had emerged as important during the three explorative interview sessions.

Table 5.1 presents a list of included cases, the reason for inclusion, and initially highlighted similarities and differences between cases.

Table 5.1 Cases and reasons for inclusion.

Case	Reason for inclusion	Initially indicated key element	Initially indicated key outcomes
<b>Alfa</b>	Example of a unit pursuing typical cost-based and efficiency oriented pricing policy with a typical plant based sales organization	Plant based sales organization	Cost-/efficiency oriented pricing policy
<b>Beta</b>	Selected because of its non-typical market opportunity oriented pricing policy, high sales margin compared to other SCAP units, and non-typical national key account sales-/pricing organization	National key account sales-/pricing organization	Market opportunity oriented pricing policy High sales margin compared to other SCAP units
<b>Gamma</b>	Selected because of its non-typical market opportunity oriented pricing policy, high sales margin compared to other SCAP units, and non-typical national and centralized commercial organization	National and centralized commercial organization	Market opportunity oriented pricing policy High sales margin compared to other SCAP units
<b>Delta</b>	Selected because of its non-typical market oriented pricing policy, high sales margin compared to other SCAP units, and non-typical separate national sales organization	Separate/external national sales organization	Market oriented pricing policy High sales margin compared to other SCAP units
<b>Epsilon</b>	Selected because of its non-typical market oriented pricing policy, high sales margin compared to other SCAP units, and use of a national pricing model (software)	National pricing model (software)	Market oriented pricing policy High sales margin compared to other SCAP units

As described above, the case-selection process was guided by both theoretical and practical considerations. The theoretical considerations were related to having cases illustrate different aspects of pricing capability in the corrugated packaging industry, either in terms of initially indicated key pricing capability elements, or in terms of specific pricing related outcomes (such as a certain pricing policy or level of financial performance).

The practical consideration that had to be taken into account was related to the scope of the Paper and Packaging Program and the demands of SCAP management, which constituted prerequisites for gaining access to the different business units. Such considerations limited discretion with regard to the possibility of selecting cases outside SCAP and the corrugated packaging industry, and the sequence and time for conducting the different case-studies. Practical considerations, such as SCAP management's demands on which units that should be included in the study, also brought about a bias towards selecting cases that, from a SCAP perspective, showed "best practice". More specifically, this meant that units that had made specific investments in pricing, or were paying this area specific attention, were favored over other more representative units. Further, explicitly searching for units that would disclose "best practice" meant that units that were displaying a high level of market orientation (considered a novelty in the corrugated packaging industry) and high financial performance were favored over others.

According to Yin (2003), cases in a multiple case study design should be replicated so that they either produce similar results for predictable reasons (literal replication), or contrary results, again, for predictable reasons (theoretical replication). This type of stricter replication logic could not, as indicated above, be accomplished due to the specific demands SCAP managers placed on the selection of cases. A second important reason why this could not be accomplished was the lack of more specific information about the content of the cases at the outset of project. Hence, rather than being able to make a precise prediction of the outcome of cases, *ex ante*, as suggested by Yin (2003), their selection had to be based on a broader notion of the different aspects of pricing capability that they would shed light on (see Table 5.1).

Even after taking into account the practical restraints described above, the pros of gaining complete access to the selected units and the opportunity to have an ongoing discussion with SCAP managers about relevant aspects of the different cases, outweighed the cons or restrictions placed upon the research design in terms of not being able to sequentially replicate cases solely based on theoretical considerations.

### 5.3.2 Data collection procedures

All the case-studies were conducted according to a pre-defined case-study protocol that specified data collection procedures, data sources (interviews, documents, etc.), and the type of questions that the collected data should answer (Yin, 2003). This protocol was originally developed in a generic format based on the concepts included in the preliminary framework and relevant contextual factors, and then continually adapted to better fit the idiosyncrasies of the individual cases and insights gained in previously conducted cases. Hence, the case-study protocol was used as a means to organize the data collection process at each site by defining and outlining items/questions. This assured that data collected would be exhaustive relative to concepts included in the preliminary framework and other potentially important emergent categories, and would remain consistent throughout the study.

The data collection for each case was conducted during a 2-4 day visit at each site (except Epsilon where data was collected on two separate one-day visits). Table 5.2 states the five cases included in the study, the dates during which the different units were visited, the position of the respondents, and the number of interviews conducted at each site.

Table 5.2 Cases and interviews.

Phase/case	Date	Position of respondents	Number of interviews
Explorative interviews	040514 - 040826	Sales & marketing director (UK & Ireland) Sales & marketing director (Central Europe) Finance director (HQ, Brussels) Financial manager (Aylesford, UK) Commercial manager (Aylesford, UK)	5
Alfa	041121 – 041124	General manager Internal sales manager External sales manager Controller Internal sales representative	7
Beta	050203 - 050204	General manager Sales and marketing manager Key account managers Lead designer	6
Gamma	041206 - 041209	General manager Commercial director Commercial manager Financial manager Sales representatives	10
Delta	050221 – 050223	General manager Sales manager Financial manager Internal sales representatives	8
Epsilon	050208 & 050323	Sales and marketing director General manager Calculator Sales manager Sales representative	5
<b>Total</b>			<b>41</b>

Given the limitations of the research context and the unit of analysis, the aim of the selected data collection procedure was to build case-based conclusions on as many different type of data sources as possible. This allowed evidence collected from one data source (such as an interview) to be verified by a second source (such as a second interview with a different respondent) or by a completely different medium (such as documents).

There are six principal sources of evidence available to case studies: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts (Yin, 2003). In descending rank of importance to the study, the following forms of data sources were used: (1) semi-structured interviews, (2) documents, (3) direct observation, and (4) physical artifacts.

*Interviews-* The main data source was semi-structured interviews. The interviews were conducted at each site, normally in the office of the respondent, and ranged between 1-4 hours. The interview situation was set up as a rather unrestrained conversation based on the questions or items included in the case-study protocol. Although, special attention was paid to collecting exhaustive data on all items included in the case-study protocol, the respondents were deliberately allowed to speak freely about the different subjects brought up until each subject had been fully covered. The main function of the researcher in the interview was to ensure that all items in the case-study protocol were covered and to specifically address questions or leads found in prior interviews, or other data sources, by asking clarifying or critical questions.

There were two main reasons for relying on interviews as the main data source: First, the focus of the study was on a phenomenon that does not need to be explicitly addressed in documents/archival records, or be directly observable. Second, studying the pricing process could potentially be sensitive and result in situations where the data collection procedure disturbs the sales process. Interviews had the advantage of minimizing the risk of such disturbances, which was an important condition for gaining access.

*Documents-* These have played an important role for both raising new issues related to the items in the case-study protocol and for verifying, or complementing, data collected from interviews. Formal documents have the advantage (and disadvantage) of being reflections of formal policies rather than actual practice, which can function as an informative contrast to the more day-to-day grounded picture provided by interviewees. Further, financial and other types of quantitative data (profit/loss statement, market reports, etc) have played an important role in verifying or complementing more tangible forms of information given by the respondents. The following types of documents were used: (1) profit/loss statements, (2) cost/price calculations, (3) internal pro-

duction-/sales-/market reports, (4) internal presentations, (5) the European Corrugated and Containerboard review 2004 Edition- European summary, (6) the European Corrugated and Containerboard review 2004 Edition- National summary, (7) industry surveys, and (8) consultant reports.

*Direct observation*- The researcher spent 2-4 working days at each site during which observations were made to corroborate data obtained from interviews and documents. The role of direct observation as a data source was secondary to interviews and documents. Although not a primary data source, observations during the time spent at the different sites helped the researcher form a better understanding of factors not directly central to the investigation, but of potential contextual importance.<sup>34</sup>

*Physical artifacts* - The role of physical artifacts as a data source was secondary to interviews and documents. Although not a primary data source, the possibility of directly examining physical artifacts during the time spent at each site helped the researcher form a better understanding of factors not directly central to the investigation, but of potential contextual importance. Examples of physical artifacts are products/boxes (to better understand functionality and sales arguments), production equipment (to better understand cost structure and difficulties in achieving certain product functionality), and IT-systems (to better understand functionality, routines tied to the system, and how different parameters appear in the system).

## 5.4 Data analysis

The method of data analysis draws on two streams of methodology literature: case-study research as outlined in previous sections according to Yin (2003) and Eisenhardt (1989), and the method of constant comparison (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The empirical data has been analyzed in two overlapping phases.

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<sup>34</sup>Such as personal appearances, spatial composition of sites, status indications in terms of offices and furniture, gender composition of work-force, interaction patterns between respondents, etc.



1. Initial empirical analysis and identification of empirical themes along which the five cases are introduced (chapter 6).
2. Comparison between the preliminary framework and the identified empirical themes in order to inform theory and prior research, and potentially extend, reform or otherwise develop the preliminary framework to give a more accurate account of the empirical data (chapter 7).

### 5.4.1 Method of analysis – Phase 1

The basic logic of phase 1 was to compare different bits of empirical data in order to facilitate abstraction or conceptualization (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The ambition in this phase was not to directly develop, extend or falsify the preliminary framework, but to descriptively develop a representation of the phenomenon under investigation.<sup>35</sup>

The data analysis in phase 1 was conducted case-by-case after all data included in the case had been collected. The data analysis procedure in phase 1 followed seven steps.

1. Interviews were transcribed and written material was organized.
2. All transcripts were read through several times while noting themes emerging from the text on a separate piece of paper and marking the text in the transcript that the particular theme referred to.
3. The text was sorted by theme.
4. By iterative comparison of the text sorted under different themes, the number of themes was reduced and individual

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<sup>35</sup>Given the ambition to create an exhaustive representation of the case, it is unavoidable that the analysis is influenced by the preliminary pricing capability framework. There are several reasons for this. First, questions asked to respondents have been guided by a preconception of what type of phenomenon the concepts of “pricing capability” denote, and hence, the type of data gathered was influenced by the concepts included in the preliminary pricing capability framework. Second, judging what is theoretically relevant themes when analyzing the empirical data cannot be done based on the differences and similarities of bits of data alone, but must be guided by some notion of prior research and what type of categories that are relevant for explaining the phenomenon under investigation.

themes were delimited so that a consistent classification was accomplished.

5. Themes were given definitions that captured the content of the quotations included under the themes.
6. Themes were organized into more inclusive categories broadly related to the concepts included in the preliminary pricing capability framework or important contextual factors.
7. A coherent and fluent case-description was written based on the outlined structure. The case-description contained six sections dealing with case-specific categories related to: pricing process, strategy and pricing policy, organization, mechanism underlying the pricing decision, product costing, and market intelligence (this is the basic structure of chapter 6).

#### 5.4.2 Method of analysis – Phase 2

Phase 2 was primarily aimed at a comparison between the generated themes, and the concepts included in the preliminary framework. Thus, the prime purpose of phase 2 was to extend and reformulate the preliminary framework with regard to capability elements, pricing activities and pricing policies. The data analysis was conducted after cases had been organized and written according to the procedure described in phase 1. The data analysis procedure in phase 2 followed three steps.

1. Each individual case (the result from phase 1) was analyzed according to the preliminary pricing capability framework, thus, plotting the case in terms of pricing policy, pricing activities, and pricing capability elements. The analysis of individual cases is included as the last section in each case-presentation.
2. Empirical results on pricing policy, pricing activities and pricing capability elements derived from the analysis of individual cases were summarized and related to each other. This enabled a comparison between relevant observations made in the five cases, from which a pricing capability framework contextualized to the corrugated packaging industry and case-study results could be developed (section 7.1).
3. In the last step of the empirical data analysis process, the empirical results were compared to the preliminary pricing capa-

bility framework resulting in a proposition for a revised pricing capability framework (section 7.2).

## 5.5 Validity and reliability

### 5.5.1 Construct validity

Pricing capability is, as most other concepts in social science, not directly observable or measurable without prior operationalization into empirically observable phenomena (empirical indicators). Ensuring that theoretical concepts correspond to, or are properly represented by, selected empirical indicators in a consistent way across different cases is of crucial importance to the validity of results in a multiple-case study.

As illustrated by the preliminary pricing capability framework, this thesis addresses pricing capability as a composite construct involving the relationship between pricing capability elements, pricing activities, and pricing policy. The content and definitions of these concepts were addressed in detail in section 3.2-3.5. The purpose of that presentation was to, based on prior research, present definitions and outline examples of phenomena represented by the concept.

Table 5.3 illustrates the conceptual descent undertaken in this thesis from the notion of pricing capability to indicators used to guide the empirical study.

Table 5.3 Operationalization.

Level		Constructs and phenomena	
Unit of analysis (main concept)		Pricing capability	
Theoretical concepts (sub-concepts)	Pricing capability elements	Pricing activities	Pricing policy
Type of phenomenon used to guide empirical study	Assets/routines or discrete bundles of assets and routines enabling the development and implementation of pricing policy	Activities aimed at the development and implementation of pricing policy	Price level and price variance over products, customers or time
Preliminary framework	Pricing organization Pricing information systems Pricing skills	Pricing policy development Demand analysis Cost and profitability analysis Competitor intelligence Communication and negotiation	Price discrimination Price elasticity leverage Operating leverage

The process of arriving at empirically grounded definitions of key concepts is only the first part of designing a valid empirical study that assures that empirical observations corresponds to theoretical concepts. The second part involves the relationship between these definitions and data collection procedures, and the consistency of this relationship over time. The special measures taken in order to increase the likelihood that definitions of concepts are consistent with the type of data collected was largely accounted for in section 5.3.2. Such measures involve the use of different types of data sources to allow for data triangulation (to avoid systematic errors accruing from the use of one particular data source) and the use of a generic case-study protocol (to avoid inconsistencies in how concepts are represented).

### 5.5.2 Reliability of data sources

The reliability of the data collection procedures used in this study can be viewed from two perspectives. First, reliability requires that the research is conducted and reported in a transparent way, allowing other researchers to evaluate results and possible test conclusions in a second

study. This has been accomplished by accounting in detail for how theoretical concepts have been generated and operationalized into empirical indicators that are accessible to the selected data collection procedures. Specific measures taken in this area include the procedure for developing the preliminary pricing capability framework, the use of a case-study protocol derived from the preliminary framework to guide data collection, and the explicit account of data collection procedures given in this chapter. Second, reliability requires that the different data collection methods used in the study generate accurate empirical observations. As mentioned in section 5.3.3, this study has relied on two main types of data sources, semi-structured interviews and documents. In addition, direct observation and physical artifacts were, to a limited extent, used as complements to the two main forms of data sources.

To large extent, the reliability of the results of this study are dependent on whether the studied phenomena have been captured by the two main forms of data sources, semi-structured interviews, and documents. As discussed in section 5.3.3, interviews constituted the main form of data source, while documents were primarily used for validating interview statements of a more tangible or factual nature (primarily quantitative statements about prices, profitability, sales, market share, etc.). This naturally puts a lot of emphasis on the use of interviews as a means of data collection.

The notion of the interview as a method of collecting valid empirical data has been criticized by several authors (e.g. Silverman, 2001; Alveson, 2003). Much of the critique concentrates on the extent to which interview statements can provide an accurate representation of “facts” outside the interview situation,<sup>36</sup> and whether respondents can be assumed to give an accurate account of facts.<sup>37</sup> Naturally, the researcher’s judgment of the truthfulness of a statement can never be completely certain. The problem consists of three parts; whether a respondent is actually giving an accurate account of facts, being able to detect insufficiently accurate accounts once they appear, and examining whether

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<sup>36</sup>See, for example, Silverman (2001) on the use of interviews compared to studying naturally occurring talk and events (observation).

<sup>37</sup>See, for example, Alveson (2003) on the different ways of interpreting interview results and the potential pitfalls of a naïve and non-reflexive approach to interpreting verbatim statements by respondents.

statement by different respondents, or data obtained from other types of sources, are coherent.

Issues concerning the reliability of interview statements have primarily been addressed by means of triangulation between the statements from different respondents, and between different types of data sources (primarily interviews and documents). In addition to triangulating different data sources, an effort was also made to increase the likelihood of getting accurate accounts from respondents and increasing the chance of detecting ambiguities or inconsistencies. This was done by conducting longer interviews that allowed respondents to speak relatively freely about the subject at hand, and returning to the same subject several times from different perspectives while explicitly questioning any form of inconsistencies with critically oriented questions or rephrasing of prior questions.

### 5.5.3 Causality and generalization of results

The aim of this thesis should be seen as primarily driven by a theory developing and explorative ambition. This aim has strongly affected the research design of the study in a direction allowing specifically for conceptual integration and the empirical exploration of different aspects of pricing capability. Naturally, such an ambition limits other aspects of the research design. Hence, the study should not be seen as testing or corroborating certain hypothesized causal relationships in a sample of cases, but rather as an attempt to develop the concept of pricing capability, and integrate it with mainstream strategic management theory. The result of this process is thus a set of empirically and theoretically grounded propositions that should be suitable for future corroborative studies and statistical generalization. Following the logic outlined above, the generalization of results should be seen as analytical rather than statistical (Yin, 2003).



## 6. Pricing capability in the corrugated packaging industry

This chapter presents the five cases on which the empirical study is built. All five cases are profit centers within SCAP. The fact that four out of the five studied units have been either acquired from competitors or started as “green-field” operations from 1996 and onwards, and that the units are allowed to operate relatively independent, has led to significant differences between them. First, different units serve different types of customers, ranging from fast-moving-consumer-goods (FMCG), electronics, spirits, industrial, and confectionary. Second, the studied units operate under very different competitive circumstances, ranging from relatively oligopolistic markets in geographically more remote areas to the fierce price competition of continental Europe, or the growing economies of old East European countries. More generally, the specific local history and tradition of each unit has, together with the different market characteristics, given rise to a great deal of variation in areas such as; physical equipment (machines, etc.), organizational practices and routines, formal organization, strategy, IT-systems and, of course, financial performance. This study aims to tap into these organizational differences that, despite the corrugated packaging industry being a quite homogeneous industry, exist within the same corporation. The study does this with a focus on pricing and the factors that influence differences between units in this area. Hence, relating back to the preliminary pricing capability framework presented in section 3.5 (Figure 3.1), the primary aim of the five cases presented in this section is to explore the relative importance of pricing capability elements and activities for achieving a certain pricing policy. This will, in turn, allow for a further elaboration of the preliminary pricing capability framework.



## 6.1 SCA Packaging and introduction to the five cases

### 6.1.1 SCA Packaging Europe

SCA is a multinational integrated corporate group that produces and sells packaging solutions, absorbent hygiene products, and publication papers. The group has six different business areas: SCA Packaging Europe, SCA Forest Products, SCA Tissue Europe, SCA Personal Care, SCA Americas and SCA Asia Pacific. SCA Packaging Europe consists of two divisions, Corrugated Board and Containerboard. The containerboard unit is responsible for the production of the different kinds of liners and fluting, which are internally sourced by the Corrugated Board unit and used as the basic input material for the production of corrugated board. The business idea is to offer customized transport and packaging solutions for both industrial and consumer markets. This means providing customers with solutions for packing, transporting, storing and protecting products along the supply chain. In 2005, SCA Packaging Europe had a turnover of around 3.5 billion Euros and approximately 200 plants and mills represented in approximately 25 European countries.

SCA Packaging Europe is organized in five different regions: Nordic, Middle Europe, Western Europe, UK & Ireland and Southern Europe. The European head office is situated in Brussels. Each region contains a regional management team, but the responsibility for operations and sales is held by the individual profit center, which in some cases is a single production unit (plant) and in other cases a larger unit consisting of several plants. Each individual profit center is managed by a local management team lead by a general manager who has the overall profit responsibility for the unit. The management team at each profit center resembles that of an independent company, normally consisting of a general manager, operations manager, sales/commercial manager, financial manager, etc. In addition to the local management team at each profit center, the regional management and European management, SCAP also has national management teams. The four organizational levels addressed above are presented in Table 6.1.

Table 6.1 Organizational levels with in SCA Packaging Europe.

Organizational level	Comment
Profit center	Local unit consisting of one or more plant
National	National management coordinate operations in one country
Regional	Regional management coordinate operations in the region (UK & Ireland, Nordic region, Western Europe, Middle Europe, Southern Europe)
European	Coordinates operations on a European level

The five cases introduced in this section represent profit centers that are part of the corrugated division of SCA Packaging Europe (i.e. SCAP) but situated in five different countries in three different regions. Some basic information about the five cases is presented in Table 6.2.

Table 6.2 Studied cases within SCAP.

Case/profit center	Region	Comment
Alfa	Middle Europe	Single plant organization
Beta	Middle Europe	National organization with several production sites and one HQ/ commercial center
Gamma	UK & Ireland	National organization with several production sites and one HQ/ commercial center
Delta	Middle Europe	Single plant organization
Epsilon	Nordic region	Single plant organization

SCAP is a highly decentralized company that since the 1960s has grown almost entirely through acquisitions. Alfa and Delta were bought by SCAP in 1997 and 2002 and were until then part of independent national packaging companies. Beta started as a green-field operation in 1996 and the current operations of Gamma are a result of a merger in 1999 between SCAP and an acquired packaging company.

### 6.1.2 Production and sales of corrugated packaging

Corrugated board consists of a corrugated layer of fluting and flat layers of liner that are glued together during the production process to form a corrugated board. This first step in the production process of a corru-

gated box is called corrugation. The corrugation process is done with a corrugator machine (normally the main machine investment in a plant). The corrugated board that comes out of the corrugator is cut into sheets. Corrugated sheets can either be sold as they are, or further processed in a converting process to form boxes/packaging. There are several different converting machines in a box plant, where simple box designs might only need one converting step whereas more complex boxes require processing in several different machines. Generally, converting includes cutting, printing, gluing, folding, creasing, etc. An important characteristic of packaging is the quality of the print on the box. SCAP uses a number of different techniques for printing; these will not be dealt with here. However, one frequently reoccurring categorization is between post-print and pre-print. Normally, the packaging is printed in the converting stage of the production process. This is called post-print. Because of the difficulties in achieving finer print on an already processed corrugated board, packaging requiring finer print is often pre-printed, which means that the paper is already printed before being processed in the corrugator.

The paper used to manufacture corrugated board (liners and fluting) is produced in paper mills belonging to the container board division. The finished liner/fluting is then either internally sourced for use in box plants or sold externally. Corrugation and converting is managed in box plants belonging to the corrugated board division. Box plants are recognized by having a corrugating and converting capability. In addition to box plants, some production units are called sheet plants, which mean that they lack a corrugator and only do the converting from corrugated sheets.

SCAP's products are to a large extent customized to the demands of the individual customer and there are, for most products, no direct standards. However, some simpler boxes are standardized and stocked, of which the American box is the most widely sold. The lack of standards makes it somewhat difficult to speak of specific products. Instead, SCAP uses a product categorization that is related to the production process of different types of boxes. The most commonly used product categories are listed in Table 6.3.

Table 6.3 SCAP product categories.

Product category	Description
Die-cut box	More complex box often requiring more than one converting step
Inliner box	Simpler box often requiring only one converting step
American box	Standard “brown box” that is kept in stock
Pre-printed box	Packaging where liners are printed before entering the corrugator
Post-printed box	Packaging that is printed during the converting process
Corrugated sheet	Corrugated board that is not processed further before sold
Display	Paper construction used for in-store display of consumer products

SCAP mainly operates in a business-to-business environment. SCAP’s customers are companies operating in both consumer and industrial markets that need packaging for their goods. Some examples of customer segments used within SCAP to describe the customer base are Fast-moving-consumer-goods (FMCG), Electronics, Automotive, Industrial, etc. Customer transactions are often managed in long term contracts, which stipulate price according to pre-defined parameters (often paper costs). However, a large share is sold and priced “per order”.

Because of SCAP’s decentralized organizational structure and the fact that different units have been acquired continuously since the 1960s, pricing practices differ widely across different plants and regions. However, there are several characteristics of the pricing process in SCAP that are largely consistent across plants. The following presentation will focus on a common description of pricing related activities, with the reservation that local differences can be extensive. This description serves as an introduction to the context in which pricing decisions are made in SCAP. Local variations will be addressed as the cases are introduced.

Pricing decisions are made at several different organizational levels within SCAP. The main bulk of pricing decisions is made at the individual unit by responsible officials. Lower level officials’ price smaller orders/customers while orders and customers that are strategically important are priced at a management team level. Larger accounts that involve several production units are managed at either a national, regional or European level.

Most pricing decisions are made at each profit center or plant. As will be shown later in this section, pricing is not a well defined area of practice in SCAP and therefore not a well defined process where pricing activities can be clearly separated from other activities more generally related to sales or operations. Hence, the pricing process is embedded in the overall sales process and contains activities closely related to other functional areas within the unit. At the level of individual profit centers there are three different types of pricing taking place.

1. *Everyday pricing of new but non-strategic accounts* – ordinary day-to-day pricing of new accounts that is routinely managed by responsible officials.
2. *Everyday pricing of current accounts with established relationships* – renegotiation of established contracts or prices is managed by responsible officials.
3. *Strategic pricing* (tenders, large key accounts, etc.) – novel and non-routine situations which often involve several members of the management team.

On a general level, the process leading up to the pricing decision and the closing of a deal with a new customer can be described as a sequence of activities.

1. *Customer assessment* – Sales opportunities are identified, discussions with customers are initiated, and customer needs are specified in terms of a specification or inquiry.
2. *Preliminary pricing decision* – Mechanism and responsibility depend on the local approach.
3. *Negotiation* – Negotiation of final terms of the agreement.

### 6.1.3 Financial performance, products and local market

This section describes the five studied cases with respect to financial performance, the type of products being produced, the type of customers being served, and the local industry/market. As shown in Table 6.4, cases vary significantly with regard to their relative size, financial performance in terms of average price and sales margin.

Even though the variation in average square meter price and operating margin can function as an indication of the extent units have succeeded in pricing, there are important restrictions on the comparability of these measures related to differences in product portfolio and local industry characteristics.<sup>38</sup> Having said that, there are still some general observations that can be made from comparing the five cases.

All five units are relatively profitable compared to a European average. Epsilon shows the greatest performance in terms of operating margin followed by Gamma and Delta (see ranking in Table 6.4). Much of the variation in average price can be explained by differences in product portfolio. One example of this is Beta's relatively high ranking on average price compared to their operating margin. Simply put, more value added products made out of more expensive materials that demand more processing naturally give rise to a higher average price without necessarily having the same effect on the sales margin. A potential effect of industry differences can also be viewed when comparing the high ranking of Epsilon on operating margin to the characteristics of the competition in the local market. This shows an extremely high level of industry concentration with the top four suppliers of corrugated packaging supplying over 90 % of domestic demand.

As mentioned before, the data presented in Table 6.4 has the character of background information to better understand differences between the five cases. Inferences regarding any causal relationship between factors should be made with caution.

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<sup>38</sup>The financial data is included here only as background information to the different cases and no claims are made with regard to the correlation between an individual unit's financial performance and other observations.

Table 6.4 Financial performance, products and local industry characteristics.

Index <sup>39</sup>	Alfa	Beta	Gamma	Delta	Epsilon
<b>Turnover</b>					
2003	100	111	210	212	182
2004	100	127	213	205	173
Change	+6 %	+21 %	+8 %	+3 %	+1 %
Ranking -04	5	4	1	2	3
<b>Price/sqm</b>					
2003	100	218	175	206	167
2004	100	207	170	191	149
Change	+7 %	+1 %	+4 %	+0 %	-4 %
Ranking -04	5	1	3	2	4
<b>Operating marg.</b>					
2003	133	100	171	135	202
2004	100	104	166	131	210
Change	-28 %	+7 %	+1 %	+1 %	+8 %
Ranking -04	4	5	2	3	1
<b>Products</b>	- Focused on transport packaging for FMCG - Die-cut - Inliner/American boxes - Corrugated sheets	- Focused on creating a total packaging solution for the electronics industry - Transport packaging - Die-cut - Consumer packaging - Non-corrugated materials	- Focused on high value added products for the local spirits industry - Die-cut - High-quality pre-print	- Focused on consumer packaging for the local food-/confectionary industry - 25 % consumer displays - 75 % corrugated packaging - 60 % pre-print - 30 % post-print - 10 % non-print - Majority of corrugated is die-cut (75 %)	- Focused on the small-/mid-sized customer - No specific product focus - 8 % corrugated sheets - 39 % Inliner/American boxes - 48 % Die-cut boxes
<b>Industry</b>					
<i>Customers</i>	- Main customer segment is FMCG/food - 5000-6000 potential customers - 600-700 actual customers - Top 40 customers accounts for 75 % of Alfa's volume	- Main customer segment is Electronics - App. 5000 potential customers - App. 100 actual customers - Top 8 customers accounts for 83 % of Beta's turnover	- Main customer segment is the spirits- and related industries - 55 % of turnover is in spirits (7-8 companies) - Top 4 customers accounts for 48 % of Gamma's turnover	- Main customer segment is food/confectionary - App. 350 actual customers - Top 20 customers accounts for 80 % of Delta's turnover	- Main customers segment are FMCG and Industrial - App. 6000 customers buys directly (24 000 buys through retail org.) - Focus on small-/mid-sized customers
<i>Competition</i>	- Top 5 suppliers accounts for app. 84 % of domestic sales (SCAP 11 %) - 4-4,5 % annual market growth	- Top 5 suppliers accounts for 96 % of domestic sales volume (SCAP 9,6 %) - 12 % average annual market growth	- Top 5 suppliers accounts for 67 % of domestic sales (SCAP 35 %) - 1 % market growth in 2004	- Top 5 suppliers accounts for app. 40-45 % of domestic sales (SCAP 14) - Annual volume increase of 2,9 % - Annual turnover decrease of 4 %	- Top 4 suppliers accounts for app. 90 % of domestic sales (SCAP 30 %) - 0,4 % market decrease in 2004

<sup>39</sup>The indexation compares the five units per year using the lowest performer that year as base (i.e. index 100). The row "Change" indicates the percentage change between 2003 and 2004 for each unit.

#### 6.1.4 Structure and content of cases

The empirical cases are presented in five different sections (6.2-6.6). Each case is further divided into seven subsections. The first six subsections each cover a particular empirical theme. The last subsection provides an empirical analysis of the individual cases based on the concepts included in the preliminary pricing capability framework.

The first section of each case presentation outlines the day-to-day (operational) pricing process at the studied unit according to three broad activities: (1) customer assessment, (2) preliminary pricing decision, and (3) negotiation. The activities used to describe the pricing process have been empirically generated in order to provide a case-specific account of the chain of events leading up to the finalization of price.

Each of the following five sections cover a particular empirical theme related to; strategy and pricing policy, organization, mechanism underlying the pricing decision, role of costs and the evaluation of pricing decisions, and systems/practices for market intelligence. The formation and choice of particular empirical themes to portray pricing practices have primarily been guided by the empirical data. In this process, the preliminary pricing capability framework played a secondary role, related to delimiting the scope of inquiry to issues broadly associated with pricing policy, pricing activities, and pricing capability elements.

The seventh section of each case-presentation provides an account of the deployment of pricing capability at the studied unit according to the concepts included in the preliminary pricing capability framework; pricing policy, pricing activities, and pricing capability elements. While the intention of section 1-6 is to provide an empirically oriented description of the cases, this section provides a case-specific empirical analysis where the three main concepts included in the preliminary pricing capability framework are directly applied to the case in question. Because of differences between the preliminary pricing capability framework and empirical findings, the concepts were given empirical content rather than trying to force the conceptual properties of the preliminary framework on to the empirical data. This requires some initial clarifications regarding the empirical treatment of the concepts of pricing policy, pricing activities, and pricing capability elements.



In section 3.2.2, *pricing policy* was defined as a policy that governs how price vary over products, customers or time. Further, pricing policy was described according to three specific dimensions: price discrimination, price elasticity leverage, and operating leverage. A general difficulty when applying the concept of pricing policy to empirical findings was the lack of uniformity in the observed pricing policies. Product customization and use of per sale pricing in the corrugated packaging industry limited the direct applicability of the dimensions used to describe pricing policy in the preliminary pricing capability framework. Hence, in order to better represent the empirical content of the cases and contextualize pricing policy dimensions to the particular empirical setting, the dimensions were given a somewhat broader meaning relative to the definitions provided in the preliminary framework.

*Price discrimination* refers to the extent by which individual prices vary (i.e. the variance in the distribution of prices). Pricing situations characterized by customized products and per sale pricing naturally display certain levels of price discrimination. However, due to the basic nature of this pricing situation, price discrimination does not follow a pre-set segmentation logic or scheme ranging multiple customers. Rather, a key dimension is the level of flexibility exercised by the seller and by which price is set in each individual transaction.

*Price elasticity leverage* refers to the impact of customer- and competitor information on price. Pricing situations characterized by customized products and per sale pricing cannot be analyzed based on the aggregate impact of a uniform price on volume, which is normally used to describe the type of leverage effects price changes can have in markets with high price elasticity. However, it is attractive for the seller to manage or evaluate its average price, or portfolio of prices, in response to the differential levels of price elasticity across markets or segments.

*Operating leverage* refers to the impact of calculated costs on price. As in the case of price elasticity leverage, pricing situations characterized by customized products and per sale pricing cannot be analyzed based on the aggregate impact of price related volume changes on profitability. However, the seller's cost structure constitutes an important dimension of pricing policy in terms of break-even restrictions and profitability of different levels of capacity utilization.

In addition to describing the five cases in terms of pricing policy dimensions, the case-specific analysis also proposes specific labels or names used to separate the five different pricing policies observed at the different studied units. The labels used for this purpose are *capacity pricing* (Alfa), *value-based pricing* (Beta), *opportunity pricing* (Gamma), *stability pricing* (Delta), and *model plant pricing* (Epsilon). These names are empirical labels used to separate the case-specific (idiosyncratic) pricing policies identified in the study and should not be seen as carrying theoretical connotations.<sup>40</sup>

The concept of *pricing activities* was introduced in section 3.3 by outlining five different types of activities identified in prior research. The pricing process at the studied units differed significantly from the activities identified in the preliminary pricing capability framework. Hence, an empirical classification of pricing activities was chosen for giving an accurate representation of the pricing process at the studied units. The operational pricing process consisted of three activities: (1) *customer assessment*, (2) *preliminary pricing decision*, and (3) *negotiation*. However, in order to cover non-operational activities that played a particularly important role in two of the cases (Delta and Epsilon), one additional activity related to *evaluation and planning* was added in the case-specific analysis of these two cases. This leaves a total of three operational pricing activities performed in conjunction with each individual pricing decision, and one non-operational activity directed at the planning and evaluation of current pricing policy.

In section 3.4, the concept of *pricing capability elements* was defined as assets and routines that cause variation in the degree to which the capability's desired end is attained. While the preliminary pricing capability framework posited three broad and inclusive types of pricing capability elements; pricing organization (social capital), pricing information systems (system capital), and pricing skills (human capital), the empirical findings disclosed six more distinct elements. The six elements identified in the empirical data were selected based on the fact that they en-

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<sup>40</sup>The different pricing policies are termed according to what was deemed the main pricing mechanism at the unit. The terms "value-based pricing" and "opportunity pricing" reflect the respondents own terminology in describing their respective way of pricing. The terms "capacity pricing", "stability pricing", and "model-plant pricing" do not correspond to the direct wording of respondents.

abled or significantly affected the execution of key pricing activities and the implementation of pricing policy. Hence, the process of identifying and conceptualizing elements was, as described in section 5.4, not directly aimed at matching the content, or individual types of pricing capability elements, included in the preliminary pricing capability framework, but rather to map out firm endowments that proved to be critical in terms of enabling, or otherwise significantly affecting, observed pricing activities and pricing policy. The inductive aspects of this process were as mentioned before motivated by difficulties involved in generating comprehensive, coherent, and testable, propositions from prior research on price management and pricing capability.

The six empirically identified pricing capability elements are outlined below along with examples of observations made in the five studied cases.

(1) *IT-based systems* refer to the computer applications (software/hardware) affecting the outcome of the pricing process. Empirically identified examples of such systems were pre-cost calculation systems, post-cost calculation systems, and systems for registering and handling customer-/inquiry specific information.

(2) *Price parameters* refer to the operational constructs used to guide or evaluate pricing decisions. Empirically identified examples were full cost, “cash-flow zero” (local measurement defined as full cost minus depreciation), variable cost, added value, price/KSM (price/thousand square meter corrugated board), price index (of full cost), and CMI (contribution margin index).

(3) *Commercial organization* refers to the overall functional and social structure within which pricing decisions are made. Empirically identified types of commercial organizations were: plant-level commercial organization with external- and internal sales reps, national commercial organization with key account teams, national commercial organization with separate sales and commercial department, and plant-level commercial organization with key account teams and separate external sales organization.

(4) *Pricing authority* refers to the organizational level or function at which pricing decisions are made. Empirically identified examples of

different types of pricing authority were: pricing authority held by special pricing function or commercial manager, pricing authority held by sales and marketing manager, pricing authority held by key account managers or internal sales reps, and pricing authority held by external sales reps.

(5) *Incentive controlling arrangements* refer to organizational arrangements aimed at controlling or manipulating decision makers' incentives with regard to price. Empirically identified examples of such arrangements were the restriction of the amount and type of information available to the decision-makers, and the use of sales provision.

(6) *Commercial experience* refers to the commercially oriented personal knowledge or experiences of key individuals that affect the outcome of the pricing process. Empirically identified examples were experiences and skills related to gathering and structuring relevant market and cost information, identifying commercially well-positioned solutions, assessment of individual customers, selecting price parameters, judging the long-term validity of individual prices, and conducting customer negotiations.

As is evident from the presentation above, the empirically identified pricing capability elements in some cases bear close resemblance to the concepts included in the preliminary framework. This should primarily be seen as a result of the broad and inclusive character of the concepts included in the preliminary framework and not as an ambition to directly seek out and test these particular concepts. Rather, the ambition was to seek out and empirically identify capability elements as defined in section 2.2.2. Hence, although in some cases similar to the concepts included in the preliminary framework, the empirically identified pricing capability elements were given empirical definitions and were treated as empirically generated concepts.<sup>41</sup>

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<sup>41</sup>Examples of this are; "Commercial experience" which bears significant similarities to the concept of "Pricing skills" (in the preliminary framework), "IT-based systems" which bears significant similarities to the concept of "Pricing information systems" (in the preliminary framework), and "Commercial organization" which bears significant similarities to "Pricing organization" (in the preliminary framework). The point of using a different terminology for empirically generated concepts even when these are similar to concepts in the preliminary framework is

Each case-specific empirical analysis outlines the case in question along the six different types of pricing capability elements stated above. As mentioned above, the main criteria guiding the selection of elements were, in line with the definition of pricing capability elements given in section 3.4, that they cause variation in the desired end of the capability, which in more operational terms means that they either enabled the performance of key activities or directly affected pricing policy. Potential elements that lacked significance relative to activities and pricing policy were excluded. Further, the notion of capability elements was used to refer to factors controlled by, or at least semi-permanently tied to, the focal firm. Drawing on the basic theoretical perspective on firm boundaries outlined in this thesis (stated in section 2.1.2), the concept of pricing capability elements has been used to denote elements that are either legally contained within the firm, or most properly seen as such based on the nature of the investigation at hand (i.e. into the mechanisms underlying the distribution of surplus between seller and buyer). For example, this study has treated employee experience and skill as a firm asset, although it could be argued that such attributes are not strictly speaking part of the firm seen as a legal construct (to the extent that employees are not owned by the firm or controlled by strong long-term contracts), while attributes of contracted customers have been treated as external to the firm, although these under some circumstances can be viewed as just as closely tied to the firm as its employees.

The choices accounted for above have been guided by the notion of pricing as part of stage one in the two stage bargaining game outlined in section 2.1.2. Hence, at this stage, economic value is distributed between different stakeholder coalitions (i.e. seller and buyer) by price. Within such a context, employees in the seller's organization are by definition part of the focal coalition, which, in turn, allows treating attributes of these individuals (such as knowledge, skills, experiences, etc.) as assets. Naturally, with the same line of reasoning, legally owned assets or attributes related to employees in the buyer's organization are then, also by definition, seen as being external to the same focal coalition.

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to highlight that they have been formed to capture a particular empirical practice rather than the properties of the corresponding *a priori* concept. This allows separating properties of the specific empirical practice under the heading of one term and the theoretical properties of the *a priori* concept under a different term.

As stated in section 3.4, routines and assets have not been treated as stand-alone concepts, but rather as integrated parts of capability elements (1-6). The choice of not focusing on routines and assets *per se* was based on both theoretical and empirical considerations. The aim of this thesis is investigating the deployment of pricing capability, which implies a theoretical focus on the functional relationship between concepts, or as it is put in section 3.4, the functional relationship between capability elements and desired ends. Although discrete routines and assets were observable in the empirical data, these were found to be too fragmented or “micro” for establishing such relationships.<sup>42</sup>

## 6.2 Alfa

Alfa is a single plant organization that was incorporated into SCAP in 1997. The plant is located in middle Europe and the history of the unit dates back to 1954 while the current production facilities were built in 1996.

### 6.2.1 Introduction to pricing related activities at Alfa

The operational pricing process at Alfa can be described according to three different activities.

*1. Customer assessment* - Pre-market activity is conducted by the external sales rep (or responsible manager) and consists of getting in contact (via visit, phone, etc.) with new customers or maintaining contact with old customers. During this activity, information is gathered about what kind of packaging customers are using (size, quality, price, etc.), the annual spend on packaging, potential competitors, intensity of deliveries and what the chances are to expand with particular customers. The process of gathering this information is not formalized or tied to any system, which leads to a focus on what respondents call “the feeling of the customer”. Once a contact is established, a dialog starts with the customer regarding the product and overall set-up of the project. The external sales rep has the main responsibility for this activity, but works

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<sup>42</sup>This conclusion is consistent with prior research capability micro-structures. See Salvato (2006) and Gibe (2007) on the concepts of *replication base* and *capability element*.

closely with the design department regarding the technical details of the product. The internal sales reps are also involved, mainly as the “office organizer”. When the definition of the project is finalized, the customer normally sends in the inquiry via fax or e-mail to the responsible sales rep.

2. *Preliminary pricing decision* - When the inquiry has arrived and all details of the potential order are known, the internal sales are responsible for costing the inquiry. For ordinary boxes the internal sales can cost the inquiry automatically in the costing system. For more advanced packaging, such as die-cut, the manual help of the design department is needed to calculate the cost of special converting tools and clichés. After entering the data into the system, the system automatically costs the inquiry, delivering two main cost items that are routinely used for pricing; “full costs” and “cash-flow zero” (i.e. “full costs” minus “depreciation”).<sup>43</sup> After the internal sales have finished the calculation, the external sales rep responsible for the project is contacted and a decision is made regarding the price to quote. Generally, the price is set at the level between full costs and cash-flow zero. The initial price that is put forward in the quotation varies from order to order. A number of factors influence at what price the inquiry is quoted. Smaller customers and volumes are generally priced higher, while larger orders and customers are priced lower. Inquiries requiring a quick delivery are on the average priced higher than those with longer time spans. The level of value-added of the packaging also influences the quoted price. More value added products are priced relatively higher than commodity type packaging (for example, die-cut boxes are priced around full costs while sheets are priced below cash-flow zero near variable costs). Less complicated boxes, such as American boxes; where there is less to cut off in the converting process generate a higher utilization of the sheets and can thus be priced lower. Less value added boxes are also used as a means to achieve volume and machine utilization, so these can be priced at a lower level. Once the preliminary pricing decision is made, the internal sales rep creates the quotation. The goal is to quote a price at calculated full cost. This means that even though there are indications that a cus-

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<sup>43</sup>The name of specific cost items used at the individual unit, such as “cash-flow zero”, are referred to as they have been named and described by the respondents (i.e. there is no “objective” assessment of cost item validity/reliability unless this is explicitly stated).

customer will demand a price below full cost, the quotation is deliberately higher in order to see the customer reaction, knowing that there is room to substantially lower the price later in the process. This policy of quoting a higher price is reflected in the high percentage of first quotes that are not accepted by the customer (approximately 50-60 % of all first quotes are accepted by the customer).

*3. Negotiation* – Direct customer negotiations play an important part in the pricing process at Alfa. Among the larger customers, prices are often fixed for a certain contract period and then renegotiated. This means that pricing issues are not discussed in-between these renegotiations. The middle range and small customers negotiate per order. In practice, the price often stays the same if there is no change in the product or in the paper price. A key element of the negotiation process is the limit for how far down in price the sales reps are allowed to go. This limit is set at cash-flow zero. In order to set a price below this limit the sales reps are required to contact the internal sales manager who makes the decision. After having delivered the quotation (and sometimes a sample) to the customer and discussed the terms of the quotation, the final pricing decision is made. This is based on the same criteria as the preliminary pricing decision with the additional information from the negotiation and having seen the reaction of the customer to earlier quotations.

### 6.2.2 A strategic focus on capacity utilization

We are comparable and that is the problem. At this moment I have no idea of what I can offer to the customer that the competitors do not offer. We are quite comparable and therefore, as long as you are comparable, the decision maker is price. (External sales manager, Alfa)

As expressed by this external sales manager, the strategic position currently held by Alfa is, as in the case of many SCAP plants across Europe, characterized by lack of differentiation (i.e. comparability to competitor products), which in the case of Alfa has fostered a cost-oriented strategy centered on capacity utilization and short term contribution. Over the years, this has created a strong bond between costing and pricing, where the efficiency and detail with which order costs could be calculated (i.e. the costing system) have played an important role for the evolvement of pricing practices at the plant.



One part [of pricing] is of course the costing table, the system behind adding up all your costs. To know for a product what cost level you have. This is one element of pricing. As a matter of fact, from the development that we come from, this has been the most important aspect so far, because we have always been trying to add up our costs and put on a margin and then arrive at a price. In this aspect, over the development of the years, we are quite good at it. (General manager, Alfa)

Historically, the overall strategy of Alfa has, according to the general manager, been volume growth.<sup>44</sup> High volume and sufficient capacity utilization is seen as necessary by the local management team in order to gain scale effects and competitive position. To achieve sufficient volume and utilization of machines Alfa applies a cost-based pricing policy where products are priced differently depending on the level of free machine capacity at the time of the order, the type of product being priced, and the reaction of the customer in negotiations. Corrugated sheets, which are mainly filler for the corrugators, are priced low (at the level of a variable cost plus margin, depending on what the customer is willing to pay). American boxes, which are quite easy to make, are priced in the medium range depending on the level of free capacity at the time of the order. And finally, die-cut products are priced the highest as they contain more added value and are customized to the needs of the customer.

Decisions on pricing policy, and monitoring of overall price levels, are handled by the management team at the plant. The forums that are used for this purpose are the weekly management team meetings and the annual budgeting process. The internal sales manager has the overall departmental responsibility for day-to-day pricing and implementing price changes. This is, according to the general manager, done by entering new rates in the costing system. Changing the cost is seen as preferable over other more explicit means of changing prices because these

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<sup>44</sup>Alfa grew rapidly in volume in 2003/2004 and was in late 2004 almost full in production. By the end of 2004 Alfa had reached a very high capacity utilization that (in combination with falling margins) made management rethink the volume growth strategy and start looking at the prices they were charging. This led Alfa to a policy of trying to lose some of the lower priced volume in order to raise the average price. This policy was contingent on the volume growth that the plant has enjoyed and the fact that Alfa was working at nearly full capacity. The idea was not to lose whole customers but to be able to keep profitable products while losing the unprofitable.

changes are less visible inside the organization to the sales reps, and outside the organization to customers and competitors.

### 6.2.3 A decentralized pricing authority

I think that around 70% of the inquiries that come to the desk of the internal sales are done by the internal sales themselves. They have the calculation program and know what figures they have to put into the system to get the calculation, they also know the price level that the customer had before and even if they do not know, they go into discussions with the [external] sales men themselves [...] Normally if it is a reference that the customer orders from time to time, the internal sales look at the calculation base that he had last time, and normally, if nothing is changed, he will not change anything in the calculation. If it is a new customer or a new inquiry, the internal sales have to know the history of this customer, so they ask the [external] sales reps what they can offer, can they offer full cost or do they have to go down to cash-flow zero. (External sales manager, Alfa)

With the exception of the large strategic orders that are decided at a management team level, there are three organizational levels involved in the pricing decision. The external sales rep has the responsibility for new customers and products where there is no historical price. The internal sales rep has the responsibility for old customers where the price is routinely set according to historical levels based on the cost calculation, and the internal sales manager has the overall responsibility for pricing larger accounts. This is illustrated in Figure 6.1.

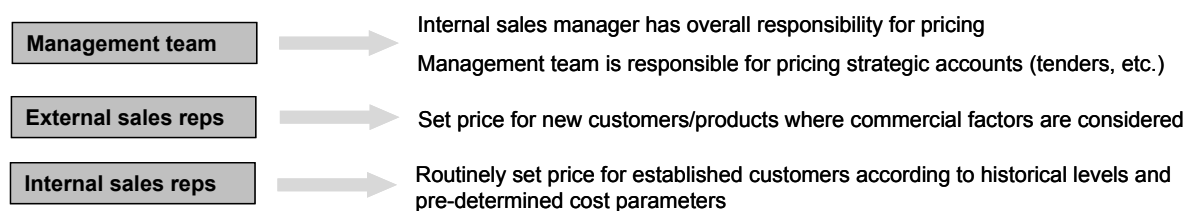


Figure 6.1 Organizational levels involved in pricing at Alfa.

All pricing is formally the responsibility of the internal sales manager who leads the internal sales department. However, in the current organization, the internal sales manager delegates a major part of the pricing decisions to the sales rep (internal/external). The general manager estimates that approximately 75% of the total volume is priced by the internal sales manager and that this corresponds to approximately 40%

of the customers. This would leave 60% of the customers (i.e. smaller and mid-sized customers) to be priced by the sales rep themselves without the involvement of the internal sales manager.

The normal routine is to set the price for existing customers based on how the calculation has been done in the past. In cases where the historic price is at the level of cash-flow zero, this becomes a process of calculating the new cash-flow zero and setting the price according to that. That is, a practice that does not take any other aspects into consideration other than the costs of the order. This means that the pricing decision is quite a routine activity that can be taken care of by the internal sales reps.

The internal sales department consists of seven persons where each internal sales rep works together with one or more external sales rep. The partnership between the internal and external sales is organized according to the regions that the external sales rep covers. The exact responsibility of the internal sales in making the pricing decision is, in addition to doing the cost calculation, vaguely described by respondents. However, the internal sales do not do any form of systematic market or customer analysis before recommending the external sales a price. A key reason for this is according to the general manager lack of resources. The internal sales rep have a huge work load related to more administrative tasks, leaving little room for commercial considerations.

The external sales force at Alfa consists of seven co-workers. The responsibilities with regard to pricing are as mentioned above not strictly defined, giving the relationship between the external and internal sales rep the character of teamwork where the external sales have greater responsibility with regard to commercial matters (because of their greater customer and market knowledge, budget responsibility, and sales provision), while the internal sales have the main responsibility for the cost calculation and more administrative matters.

The external sales rep's provision has two components; turnover and contribution. The turnover component is based on the degree to which the sales rep reaches his annual budget. Each external sales rep has an annual sales budget (which is based on a break-down of the total sales budget). The size of the individual sales budget is set based on factors such as; whether the sales rep covers a region or key account; the level

of experience of the sales rep, and the potential of the region the sales rep is covering. The bonus is calculated every quarter based on accumulated percentage coverage of the sales budget. The contribution component of the bonus is based on a “kick”, which is set at a certain average contribution percentage, so that the bonus is higher if the sales rep reaches a contribution percentage above this point. The contribution component of the bonus system is only applied to the sales rep covering a region. Sales reps working mainly against large key accounts have a very limited possibility to affect the price as the pricing decision is made by management and are therefore rewarded with a fixed percentage.

#### 6.2.4 Pricing based on inflated costs and customer negotiations

My personal belief would be that, at the moment when we blow up [inflate] the costs; it is not the correct way because you do not exactly know where you stand. But, it is the only way to fool the people who do the costing and pricing in order to be able to say: “You cannot go lower than this!”. (General manager, Alfa)

The price charged to individual customers is based on a mix of cost and market factors. The costing system provides the basis in terms of predetermined cost parameters, and the personal judgment of the decision-maker decides what mark-up or mark-down that is used (for example variable cost plus 6% or full cost minus 4%). Personal experience is put forward as an important factor in deciding which cost-base and mark-up or mark-down to use.

Prices are usually negotiated and discounted, which means that there is a general tendency to reduce initial calculated prices. This tendency is known by management at Alfa and countered by the logic of trying to define as high initial prices as possible. The mark-up part of the actual price charged is to some extent out of formal control (to the extent that it is based on the judgment of the person pricing) so efforts are instead made to inflate the cost-base generated by the costing system.

The result of the negotiation is in most cases that the initial target price is lowered to meet the demands of the customer. This is a step by step process where the customer reaction is monitored closely in order to get indications on the state of his willingness-to-pay. The customization of

prices involves a number of different steps and choices made by the person pricing the order. The initial target price is based on the choice of cost-base (variable cost, cash-flow zero, full cost) and the choice of mark-up or mark-down (i.e. the percentage that is added to or subtracted from the cost base). This price is then adjusted depending on the outcome of the negotiations with the customer (customer's ability to reduce the initially quoted price), with the restriction created by the minimum price limit decided by management (i.e. cash-flow zero or variable cost). This mechanism is illustrated in Figure 6.2.

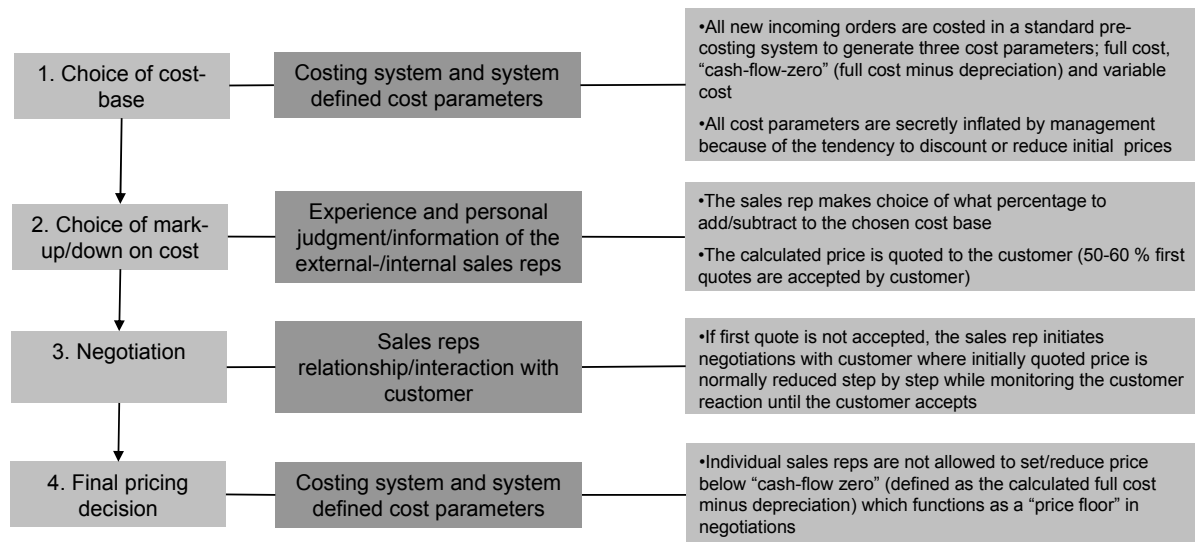


Figure 6.2 Pricing at Alfa.

The cost-based approach to pricing applied by Alfa would normally imply that a firm has a certain amount of market power and is capable of influencing the price of its product. However, the cost-plus profit approach of Alfa is not used in its traditional sense, i.e. of calculating the cost of the product and then adding a fixed and pre-determined margin on the cost that corresponds to the desired margin or profit. Instead, Alfa uses a number of different cost-bases (which are subjectively chosen from time to time, i.e. variable, cash-flow zero, and full cost). Alfa then adjusts the chosen cost base by a mark-up or mark-down, of which the size depends on the assessment of the individual situation, again based on a judgment made by the person pricing the order. The price is then further adjusted following the negotiations with the customer where the customer's reactions are monitored and evaluated by the sales person until the price reaches a lower price limit (for example cash-flow zero or variable cost, etc.), which is again subjec-

tively decided based on the customer and type of product. The obvious risk in this procedure described above is that the customer will understand or be able to predict that the seller is willing to decrease the price down to a certain limit, giving the customer an incentive to reject all prices at the initial stage (no matter if the price is below what the customer originally envisioned). However, according to the general manager, this risk is small because of the inherent complexities and the many products being priced, which makes it difficult for the customer to compare prices.

### 6.2.5 The costing system and the role of inflated costs

Full cost is the first stage that we offer and if the customer says no the second stage is cash-flow zero. We have to deduct somehow. We have to have some basis. (Internal sales manager, Alfa)

The costing parameters that are used for pricing purposes are, as mentioned before.

- Full costs
- Cash- flow zero
- Variable costs
- Index of a certain price coverage of overhead costs

The full cost measure is meant as a target price for most orders (although on some occasions prices are set above full costs). Cash-flow zero is a measure defined as full cost minus depreciation. This is the limit for the external and internal sales reps in setting the price, which has led to orders being routinely priced at this level. The variable cost does not show on the ordinary costing sheet generated by the system. The only persons who have access to this measure are the general manager and the internal sales manager, and variable costs are only used to price strategic accounts at a management team level.

The costing system is based on historical cost data (as opposed to budgeted), which means there is a risk that the cost figures do not properly reflect the activities for the coming period. This risk is countered by a yearly check to see whether the historical cost data used in the system corresponds to planned events and the budget. The cost data is put into the system in two steps. Every year the costs per machine and machine

hour are calculated on an Excel spreadsheet (along with other types of costs independent of the machines), which creates a spreadsheet with all the relevant cost items divided per machine or cost unit. A decision is then made whether the new calculated costs should be entered into the costing system or not.

The costing system at Alfa is solely used to calculate the cost of an order before it is produced in order to arrive at a price. The underlying intention of the system, that it is more of a pricing tool than a costing tool, has some important effect on how the system is managed. One important implication is that Alfa tries to avoid lowering the production and material costs entered into the system as this would, according to the current practice, result in a lower average price. Instead, costs included in the system are inflated by adding an extra margin to the paper and machine costs. The reason for this practice is that it secures an extra margin when pricing the products. The extra margin put into the system is not disclosed to the employees who are affected in their work by the level of costs in the costing system (for example the external sales manager, and internal and external sales reps). By not letting the sales reps (or other persons in the organization) know about the added margin, it is believed that they will fight harder to keep margins up as the person pricing the order believes that the price is lower compared to costs than it actually is. The practice of adding a secret margin into the cost calculation seems to have grown out of tradition and, as the practice was put into place, it is perceived as hard to change without risking management's credibility in the organization. To some extent, naturally occurring contingencies, such as changes in the price of paper, have been used to create the secret margin.

The general tendency is that the costing model is becoming more and more separated from the real costs. This raises the question of whether it is correct to even speak about a "costing model" or if the term "pricing model" is more adequate given the focus of the model on delivering figures that are appropriate for pricing purposes rather than capturing real costs and profitability of orders/products. However, openly disclosing the nature of the model (as containing inflated costs) would, according to the general manager, affect or limit the intended psychological effect in customer negotiations. A second important aspect is, according to the general manager, the sales reps' ability to sell so-called

“efficiency effect” to the customer if a more explicitly separated pricing model were to be developed. With a costing and pricing system that is tied to the real costs of the order, improved solutions or more efficient ways of producing can be directly used as an argument by the sales rep in customer negotiations, as they lower costs and then automatically the price to the customer. If the costing system were openly disclosed and used as a pricing tool, with limited ties to real costs, this argument would be lost. However, the other side of the present system is that the efficiency effects mentioned above are to a large extent captured by the customer in the form of a lower price. Contrary to the effects mentioned by the general manager, a separate and outspoken pricing system would instead make it possible for Alfa to capture a larger part of the surplus created through better solutions as this surplus would not automatically be passed on to the customers.

### 6.2.6 Segmentation and market intelligence at Alfa

We know the customers we quote and what we can charge. A gut feeling more than something systematized [...] We do not have it systematized or have a system in which we discriminate prices between segments, but on the other hand, from a point of daily business we have a good feeling of what we can charge for [...] We have 700 customers and 5000 articles. Within a customer you have 10 references, references which are priced high and low. How do you find the right metric for that? There is sometimes no rational behind it, where one reference is priced high and one low. It is likely due to the fact of competition that the price of one reference has eroded because the buyer put three references on the market and then comes back to you and say: “You lower your price by 10%, or you are out, you decide!”. And, you decide to offer it. Then, all of a sudden, you have three references at that customer that are lower priced than the other five. When you look back after a year and do an analysis, you see that there is no rational reason that these references have a lower price than the others. (General manager, Alfa)

Alfa uses three different methods for segmenting its customer base.

- The official SCAP segments based on customer-industry (buyer characteristics).
- The type of packaging (product characteristics).
- The size of the customer (in terms of annual spend on SCAP packaging).



The type of customer-industry segments present in Alfa's local market is presented as a key factor for directing sales efforts and understanding a plant's relative performance. In addition, customers are also segmented based on product characteristics. The third factor used by Alfa to segment its customer base is the size of the customer's annual spend on packaging. According to the external sales manager, customers can be grouped into three categories: small customers (- 4000 Euro/year), middle range customers (- 100 000 Euro/year) and large customers (100 000 - Euro/year). Small customers are perceived as important because they generally pay higher prices around or above the full cost item on the cost calculation. The same applies to some extent to the middle range customers as the price pressure is not as high as for the large customers while the volume remains adequate. The large customer segment is, of course, exposed to the toughest price pressure and thus the lowest prices, but still very important to a packaging supplier for gaining sufficient volume and scale effects.

As the importance of corrugated packaging varies across different customers and segments so does the value the customer places on the product, and thus, the pricing discretion for those customers and segments. As described earlier, Alfa's main instrument for accomplishing price discrimination across customer segments that attribute different levels of value to the product, is the negotiation process. The present segmentation system is in this sense not utilized in a structured way to discriminate prices. Segments are used to analyze and understand market data as well as structure reports and statistics, but they do not influence the parameters that are used to arrive at a price for specific customers, and nor does the segmentation directly influence the mark-up that is placed on an order (although there might be an indirect influence through the subjective judgment of the person pricing the order). The reasons put forward for relying on subjective judgment and negotiation rather than on a more systematized approach of price discrimination, for example based on customer segments, is according to the general manager related to complexities in the pricing situation that arises from the large number of articles and customers handled at the plant.

Competitor information is not directly registered in any system. The current practices for gathering and using competitor information are

primarily built on the individual work and experience of each sales rep (and the internal and external sales manager) where each sales rep keeps the information in his own notes (and/or memory). The main reason given for this practice is that the competitive situation changes, which makes a system difficult to implement and maintain over time. The current practice relies instead on the direct interaction with customers during pre-market activity and the negotiations.

### 6.2.7 Pricing capability at Alfa

The part of the local corrugated packaging industry serviced by Alfa was characterized by low levels of product differentiation and price competition driven by large FMCG companies that required mainly standardized transport packaging. Alfa's strategic position was described as lacking specific ties or close relationship to any specific niche in the market, which made differentiation more difficult. This resulted in a product portfolio characterized as comparable to competitor offers. The fact that Alfa's products were viewed as comparable to competitor offers, in turn, led Alfa towards a focus on efficiency, capacity utilization, and volume. The overall strategic position, briefly recapitulated above, partly explains the type of pricing policy found at Alfa.

Alfa's pricing policy can be labeled *Capacity pricing*. The objective and outcome of this policy was the tactical maximization of volume given capacity constraints on machines (i.e. maximization of contribution/machine hour). This outcome was achieved through setting prices based on calculated full costs and available capacity on key machines at the time of the order. The cost-based price of the product was then adjusted so that low value-added products (corrugated sheets, etc.) were priced with a relatively lower margin to generate a base-contribution on large and capital intensive machines, while more value-added and less comparable products were priced with a relatively higher margin to generate additional profits. Contrary to the classical notion of cost-plus profit pricing where price is set based on full costs and a fixed added margin that corresponds to the desired rate of return, the pricing policy at Alfa displayed a certain level of flexibility across products and time (as capacity utilization changed). This flexibility arose as a consequence of the use of different cost-bases and mark-up or mark-down for differ-

ent types of products, and responsiveness to customer demands put forward in negotiations.

Key characteristics of the pricing policy at Alfa are displayed in Table 6.5.

Table 6.5 Key characteristics of pricing policy at Alfa.

Characteristic	Observation at Alfa
<b>Label</b>	<i>Capacity pricing</i>
<b>Key dimensions</b>	
Price discrimination	Product groups are priced at different cost levels to achieve capacity objectives
Price elasticity leverage	Market factors have a limited impact on the initial pricing decision but affects the final pricing decision through negotiations
Operating leverage	Prices are based on the full cost calculation (full cost, cash-flow zero, and variable cost)
<b>Reported benefits</b>	Maximization of volume/contribution given capacity restraints

The pricing process at Alfa was characterized by a strong focus on activities related to the costing of incoming orders and customer negotiations. Hence, in the first step, desired levels of overall volume and capacity utilization were achieved by choosing a cost-base that matched the type of product being priced (i.e. full cost if it was a value-added product and cash-flow zero if it was a less value-added product). In the second step, an appropriate mark-up or mark-down on this amount was chosen. This internally oriented activity was focused on the information delivered by the costing system, and on the organizational process of defining an argument to bring into the customer negotiation. Due to the lack of “market input” prior in the process, the customer negotiation functioned as an important instrument for assessing the commercial side of products, thus gaining information on the customer’s willingness-to-pay and the competitive pressure associated with particular orders.

Key pricing activities are outlined in Table 6.6.

Table 6.6 Pricing activities at Alfa.

Pricing activities		Observation at Alfa
Evaluation and planning	(not a key activity)	
Customer assessment	(not a key activity)	
Preliminary pricing decision	<b>Key activity</b>	Price is set based on a choice of a specific cost-base and mark-up or mark-down on the cost base decided by the external sales rep
Negotiation	<b>Key activity</b>	Individual customer's willingness-to-pay assessed through negotiations (high customer responsiveness)

The key pricing activities summarized above were enabled by a particular set of capability elements that have been introduced throughout the case. These capability elements are listed in Table 6.7.

Table 6.7 Pricing capability elements observed at Alfa.

Capability elements	Observation at Alfa
1. IT-based systems	Plant pre-cost calculation system
2. Price parameters	Variable cost, cash-flow zero, full cost, and index of coverage of overhead costs
3. Commercial organization	Plant-level organization with internal/external sales reps
4. Pricing authority	Pricing authority held by external sales reps
5 Incentive controlling arrangements	Secretly added margins in costing system and sales provision
6. Commercial experience	Choosing cost base, mark-up and negotiation

The pricing capability at Alfa was, as indicated by the type of pricing activities performed, centered on product costing and the individual sales rep's interaction with the customer in negotiations. The key elements that enabled these activities are stated in Table 6.7. The most fundamental form of element identified in the case was the product costing system, which provided a fundamental point of reference and source of information for all pricing decisions made at the plant. The costing system should not solely be seen as source of cost information, even though this was an obvious function of the system, but it was also

a kind of an anchor, with particular routines tied to it, stabilizing the whole pricing processes. Even minor details in the design of the costing system played an important role for how pricing was conducted at the plant. An example of this are the different cost-bases (full cost, cash-flow zero, and variable costs) generated by the system prior to the pricing decision. The fact that the system was able to generate several different cost-bases provided the decision-maker with an additional form of discretion that could be used to caliber the preliminary pricing decision according to the decision-maker's judgment of the specific situation. Hence, it provided the decision maker with an additional means for meeting customer demands or adjusting the price to the volume and capacity situation in the plant at the time of the decision.

Other elements identified as important for enabling key activities were related to Alfa's organization, authority levels and incentive controlling arrangements. Common to these elements was that they acted as a way of controlling the behavior of employees engaged in the preliminary pricing decision and customer negotiations. The secretly added margins in the cost calculation and the set-up of sales provisions provided management with a tool to control the sales rep's general tendency to reduce initial prices in order to get the order, while the formal pricing authority provided accountability and ensured that pricing decisions were made by people who were perceived to have the necessary competence and information.

As indicated throughout the case presentation, commercial experience played an important role in Alfa's pricing capability. This was a key factor in managing customer negotiations and choosing which cost-base, or which mark-up or mark-down, to use for a certain order. The prominence of individual and subjective pricing discretion at Alfa can be seen as result of the lack of other systems for assessing the commercial viability of a certain price independent of order costs. However, it also provided Alfa with a means of achieving flexibility and dealing with complexity in the pricing situation that was hard to achieve with a standardized technical system.

Several indications of the dynamic processes that shaped Alfa's pricing capability were given in the case. First, pricing practices at Alfa were to a large extent developed in response to the competitive environment in which the plant was operating. Hence, coherence with the plant's over-

all strategic position was an important factor for explaining the emergence of the type of pricing practices observed in the case. Moreover, the historical presence of particular assets, and the routines associated with them, shaped the direction in which practices developed. An example of this was given by the general manager who described how the plant early on invested in a product costing system, and over time excelled at this activity, which created a natural tendency to rely on product costs for the purpose of pricing. Furthermore, observations made at Alfa indicated a lack of explicit managerial intervention on any larger scale to reshape or redirect pricing practices. Rather, pricing had, for a long time, been following an established cost-based tradition and a logic best described as “business as usual”.

## 6.3 Beta

Beta is a multi-site organization with one box plant, three sheet plants, one production unit for consumer and display packaging and a head office. The unit is located in middle Europe and started as a SCAP green-field operation in 1996.

### 6.3.1 Introduction to pricing related activities at Beta

The operational pricing process at Beta can be described according to three activities.

*1. Customer assessment* – The key account manager normally receive the inquiry from the customer together with old specifications or drawings.<sup>45</sup> The process is centered on the account team that is created when a new project is being appraised. The key members of the account team are the key account manager and a designer. Other people, both inside and outside the organization, are involved when different types of competencies are needed. The account team is responsible for gathering as much information about the project as possible. Some information can be abstracted from old specifications or from the purchaser at the cus-

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<sup>45</sup>Beta does not have a traditional external sales force, and hence, pre-market activities are not performed in a traditional sense. Instead, Beta relies to a large extent on transfer projects from other SCAP units abroad, and already established customer relationships.

toomer. In many cases, the purchaser lack important information about the project (mostly in the case of contract manufactures that are transferring a project). In these cases the account team is responsible for collecting this information, which might involve getting in contact with other SCAP units.

The preparation of an offer starts with asking the question “how can the packaging help the customer sell more of his product”? In order to answer this question many different type of competencies are required to match the product being priced. A variety of information about the market, technology, competition, different materials, is analyzed in order to get an overview on both the technical and commercial sides of the project. When enough information about the project has been gathered the designer creates the specification for the order. This includes deciding on the production site as well as the technology and materials that will be used. When this process is finished a sample is normally created and sent to the customer for approval. During this process the account team stays in contact with the customer, obtaining further information if necessary. Once all the technical details of the order have been gathered, the designer calculates the material cost of the order. Beta does not use any specific costing software. The material cost is calculated on a simple Excel spreadsheet.

An important sub-activity of the project definition phase, heavily emphasized by managers at Beta, is termed the “routing” of the project. Routing involves deciding how a certain order should be produced in order to minimize costs and maximize customer value. This is a process of deciding on which machines the order should run, which production methods to use, where to source materials and packaging parts, which sites to produce from, etc. When all the details of the project have been decided, the information is noted on an internal form that is used later in order to create the quotation and a price.

*2. Preliminary pricing decision* – The key activity for arriving at a price, once the material cost is estimated and the routing has been decided, is the decision of what added value to place on top of the material cost. For most orders, added value is decided by the sales and marketing manager as an absolute amount, which is directly added to the previously estimated material cost. The decided added value and the material cost then create the price that is used in the quotation. The decision of

what level of added value to apply is based on the routing of the project, and market and industry factors. Because there are no systems or formal guidelines for how to arrive at the added value measure, the decision is made based on the commercial experience of the sales and marketing manager and the other members of the account team.

*3. Negotiation* – As mentioned above, Beta does not have a traditional external sales force. Customer contacts are instead managed by the account team and the responsible key account manager. The key account managers do not spend much time with the customer during the negotiation phase and the larger part is conducted from the office. Thus, the customer negotiations play a smaller role at Beta than at other SCAP units, which is reflected in the fact that once the quotation has been sent to the customer it is normally accepted. According to a key account manager, 8 out of 10 first quotes are accepted by customers. However, there are some guidelines for the minimum price to apply in the negotiations in terms of minimum added value. The minimum added value is given in an absolute amount per square meter, but as emphasized by one key account manager, the added value used towards customers can vary greatly.

### 6.3.2 A value-based strategy

In our business, where service is a bigger part than the material itself, we do not use cost as the basis for price. We use value as the base for price. The value is practically what the customer is willing to pay. The product and the service is value to the customer so that is why we call it value-based pricing and not cost-based pricing. It does not mean that we don't understand costs, we do, but the base of the price is not the costs of production. We do value-based pricing, which is another type of sophistication, more complex and less automatic than cost-based pricing where you can make a very nice model for calculating the price. As we do the pricing, it is based on the understanding of the customer and judging what is the value of our product and service to the customer. For this type of pricing, the most important thing is that we have to make ourselves different from our competitors. (General manager, Beta)

Beta's business strategy and pricing policy differ from the normal volume oriented and cost-based method of most SCAP units in middle Europe. The general manager terms Beta's approach value-based pricing.



ing. According to the general manager, the choice between value and cost-based pricing can be seen as being dependent on whether the seller is serving high volume customers with more or less comparable products that carry a lower value-added or if the seller is serving customers that demand smaller runs and a higher level of service. Value-based pricing is seen as connected to less comparable products or services, while cost-based pricing is seen as an appropriate approach when pricing high-volume and low value-added products. According to this line of reasoning, Beta choice between value or cost-based pricing is to some extent contingent on the type of customer segments (i.e. electronics and contract manufacturers) that are present in Beta's local market.

An important issue brought up by the general manager is the benefits of not turning the pricing decision into an automated activity. When strictly applying cost-based pricing, the pricing decision becomes a function of the production costs, which can be automatically extracted from the costing system. This basically means that anyone with access to the costing system can make the pricing decision. A consequence of this is that both the cost and price structures of the seller becomes understandable to the buyer, which weakens the seller's position in price negotiations. One important element of Beta's pricing approach is to keep the pricing decision unstructured, emphasizing the idiosyncratic element of both the customer offer and the pricing decision. Beta's approach to pricing emphasizes the entrepreneurial aspects of pricing by analyzing the context and commercial side of each order and deciding on an added value which is believed to match the willingness-to-pay of the customer. Using added value instead of costs to arrive at a price is according to the sales and marketing manager an important factor in Beta's pricing.

The management team at Beta is convinced that the value-based pricing is the best method for pricing in their type of business environment. However, the current approach to pricing employed by Beta was not a result of a free choice between cost-plus profit pricing and the current more market oriented method, rather, limitations and reliability issues in production technology and costing software originally excluded cost-based pricing as an alternative, thus forcing Beta towards the current strategy and pricing model.

One possible danger in using a relatively unstructured or entrepreneurial approach to pricing that lack systemization or formal routines is that individual pricing decisions will move in different directions, creating an inconsistent price structure that might be suboptimal on the overall level. The lack of price structure is however not seen as a risk by the general manager. According to the general manager, the individual customer should always be charged the maximum amount that he is willing to pay. This requires that the pricing process is not tied to any fixed parameters (such as costs) or systems that might limit the seller pricing discretion.

For Beta, using a non-systematized or unstructured approach to pricing is a way of avoiding being treated as a commodity supplier because it makes it more difficult for the customer to evaluate different prices or compare with competitors. Having a less mechanical process, forces the organization to evaluate each pricing situation individually based on all available information, and not just the information the system requires (for example, costs). This enables the identification of business opportunities that otherwise might have been lost. The term “opportunity price” is used to describe this situation where a customer can be charged a relatively higher price based on an assessment of the individual situation. In contrast, using a structured approach is seen as limiting the entrepreneurial aspects of the process.

The specific type of demand generated by the electronics segment has played an important role in the development of Beta’s strategy and pricing policy. Beta’s strategy of bundling together different parts of the packaging solution (corrugated, other materials, services, etc.) into one offer with one price is practically adopted to fit the requirements of the electronics industry. According to the general manager, the ties to the electronics segment were established as a result of two external contingencies. The first was Beta’s poor financial performance in the middle and late nineties which was caused by lack of scale and machine efficiency relative to established competitors and the dominant customer segment (FMCG) at that time. The second was the fact that large contract manufacturers in the electronics industry were moving operations to Beta’s local market and demanding a different set of product attributes related more to responsiveness, customization and service, than efficiency and scale, which had been important factors for serving the

FMCG segment. Hence, the fact that Beta lacked efficiency and ability to take on large orders from the FMCG segment made investments directed specifically towards the electronic segment more attractive for Beta than for competing firms. In this way, a fit was created between the demands of the electronic segment and the capabilities of the unit. The chain of events is described as follows by the general manager.

At that time in the mid and late nineties a lot of manufacturing companies moved operations or acquired companies here. SCAP was very strong in the FMCG segment in Western Europe. So we wanted to grow with FMCG companies like Nestle, Kraft, and Philip Morris. Without having a name, the capacity, without all the equipment, they immediately wanted us to give the same price as competitors, or even lower. We made losses and we had to establish a new strategy based on the concept that we are a small company in this business. The only way to grow was to take share from the business coming into our market. The incoming business that needed packaging material was the electronics business. In that period in the second half of the nineties, contract manufactures established huge operations here; Flextronics, Samina, SCI, JB, Solectron, big, mostly American companies that moved their production. Flextronics moved operations from Sweden, from Scotland... Working for the OEMs like Philips, HP, IBM, Cisco, etc. we realized that we had to focus on this industry. We tried to understand; “what is the need of this segment”. We realized that the need of this segment was service, small runs, and not huge runs and cost efficiency, selling material or commodity. They appreciate the service, the responsiveness, high speed in design, high speed in taking over a project from Western Europe. That was what we learned; we did not know it from the beginning. This was where we could differentiate ourselves from our competitors. If we follow them then we jump into a competition. If we differentiate ourselves from them we could do our own business.[...] In addition to that we said that we are not collecting orders to our existing machines, because we can not compete with the efficiency of our competitors, but we buy and sell what the customer wants. If the customer said; “I want something from you that you cannot produce”, we could not at that time produce more than three colour print, we could not produce a lot of things, we bought it from other SCAP factories in Europe and second sub suppliers and we put together the portfolio that the customer requested. That was the way to what we call “total packaging”, that we are ready to deliver not only what we can produce, but that we are ready to do everything that the customer needs. This was a revolutionary concept in that way. That was the way to make the roundabout, and in 2000 we made the first positive year after four years of making losses and that was also the year

of building up the confidence of the European management because now they understood the market and they followed this confidence with investments. (General manager, Beta)<sup>46</sup>

The key element of Beta's business strategy is, according to a key account manager, to be as close to the customer as possible with the highest possible level of service. Beta's business model, with high level of service, a total packaging solution, and integration of own paper packaging parts and externally sourced parts (paper, plastic, foam, etc.), is the first step in enabling what is called value-based pricing possible. The value-based pricing takes advantage of the fact that Beta is able to offer non-comparable products, service and solutions to the customer. The intention is to set a price that is more or less independent of production costs and in line with the individual customer's willingness-to-pay.

The implementation of business strategy is, of course, dependent on the type of customers being served. An important factor influencing Beta's possibilities in differentiating themselves with services are the many transfer projects from Western European countries and the level of service that these firms are accustomed to. The demands of the electronics firms that have been transferring their production to Beta's local market seem to have presented quite a unique opportunity and played an important role in the development of the present strategy and pricing policy.

Although the individualized approach to pricing has the potential of capturing a large part of each individual customer's willingness to pay, to some extent it forfeits the possibility of using price as a managerial instrument to position Beta on the market or manipulate volume towards optimal levels. According to the general manager, this is done to a limited extent in the budget process where Beta works with different price and volume scenarios, but as indicated above, this practice has limited effect on how individual projects or orders are priced. The way of working described above emphasizes the importance of the individual business opportunity over using price as a tool in the long term planning of the business. One reason for this business approach is, ac-

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<sup>46</sup>Words that disclose the identity of the case have been removed from the quotation.

According to the sales and marketing manager, the characteristics of the local market. The market is, as opposed to many other more mature European markets, dynamic and growing, which is seen as a reason not to give practices too tight a structure.

The implementation of Beta's pricing policy starts in the budgeting process. When targets have been established (for example a certain increase in total added-value), the management team together with operational units and the key account managers lay out a strategy for how these targets should be accomplished. According to the general manager, the implementation is then delegated to a working group of key account managers. The implementation process for a certain pricing policy is of a somewhat *ad hoc* nature. The key focus is on the individual business opportunity and the interaction with the individual customer. Hence, Beta's philosophy is to manage each project more or less as its own business, which means maximizing the added value on each individual project. The level of overall analysis of prices is limited to keeping the average added-value in the product portfolio stable or increasing.

### 6.3.3 A team-based pricing organization

We try to do it [pricing] like a teamwork and really discuss it together, to spend as much time together as possible on an offer. In this way everyone gives their input at the same time, so there is a bigger chance to have an efficient outcome of the whole thing. (Key account manager 2, Beta)

According to the general manager, the leading role in pricing issues is generally taken by the sales team and the key account managers with the input of the sales and marketing manager. There seems to be some uncertainty regarding the exact authority and responsibility of the key account managers. According to the general manager, the key account manager has the final responsibility for making the pricing decision, but in practice, the sales and marketing manager is involved in all pricing decisions regarding new customers or products. Because current prices are heavily influenced by the historical prices, this would imply that most prices have at some point been decided by the sales and marketing manager.

The key people who are involved in pricing decisions at Beta are the sales and marketing manager, the key account manager, the design and the production manager at the relevant operational unit (plant). There are no formal or written guidelines for how the pricing decision is made. Instead, it depends mainly on the communication and discussions within the account team and between the key account manager, the sales and marketing manager and the operational unit. In this process, the sales and marketing manager have the main responsibility for making the pricing decision while the key account manager is responsible for gathering information. As indicated above, for new products, the key account manager presents a recommendation to the sales and marketing manager who then make the decision. However, for ongoing projects, the experienced key account manager normally makes the pricing decision based on the customer's historical prices without involving the sales and marketing manager. The main organizational levels involved in the pricing decision are stated in Figure 6.3.

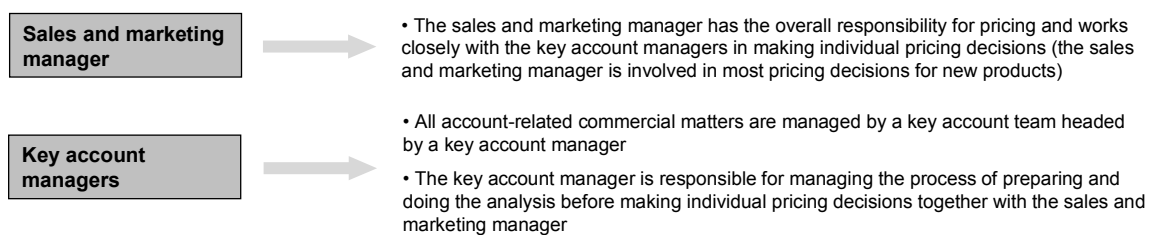


Figure 6.3 Organizational levels involved in pricing at Beta.

On a regional level, the responsibility of the different parts of the organization is governed by the budgeting process, which plays an important role for directing action and responsibilities in the organization. The operational units (plants) are responsible for costs, while the national sales team (i.e. sales and marketing manager and key account managers) situated centrally is responsible for revenues. The budget is built up from two sides, top down and bottom up, so that the anticipated added value across current customers can be aligned with whatever action or changes that are planned for the coming budget period. The approach is described by the general manager as collecting the aggregated added value across current customers to arrive at an average. Incoming business is then judged based on whether its added value is above or below the current average. When evaluating different strategies

special attention is paid to whether the aggregated added-value is increasing or decreasing.

Due to large differences in the type of accounts (in terms of turnover and margin) that the key account managers are responsible for, Beta does not pay its key account managers (nor any other members of the sales team) any form of performance-based sales provision.

### 6.3.4 Pricing based on perceived customer value

Pricing is practically understanding of the market and the business, and based on that trying to get the highest possible added value. Highest possible added value is practically our concept, to go for the best opportunity. To utilize the opportunities on the market, that is the art of pricing. It is more of an art than a technique or software; it is entrepreneurship and sometimes the feeling: “Now I can get a higher added value because the competition was absent, too slow, or they made a mistake”. (General manager, Beta)

Beta’s pricing mechanism is based on the notion of perceived customer value. This implies that price should be set according to the customer value that a certain packaging solution creates. The process of developing a new project technically and commercially is termed “routing” by the management team. Routing is said to have two sides, one related to the technical solution (type of material, type of production technology, design, etc.), and the other related to the market situation and commercial viability of the solution. The routing decision is characterized by the general manager according to nine key qualities.

1. The routing brings the added value.
2. The added value should be in proportion with the costs of the order that are estimated in advance, but not directly dependent on costs.
3. Routing should utilize the competitive situation at a maximum level.
4. Routing is strategic and not tactical.
5. Routing is more than giving an answer to the question; “on what machine should a product be produced”, because this is a tactical question of whether there is free capacity or not. Rout-

ing should not be based on tactical concerns as it is a long term decision.

6. Customer requirements result in more complex routings and solutions.
7. No one can put together the puzzle of the routing by himself. The help of all who can contribute is needed (production people, quality people, etc.).
8. Creativity and brave approaches are needed to create novel solutions. If only already proven solutions are used, Beta can only follow the market.
9. Every routing has a certain life cycle, which means that after a certain period of time the solution needs to be re-routed.

The complexity of the set-up of the routing decision is, according to the general manager, substantial and the approach opens up for a lot of mistakes or misjudgments. However, according to the general manager, this approach is still more profitable than in the standard solution in SCAP.

The routing process described above focuses primarily on how Beta creates value for its customers. What is not captured is price, or how much of the created value that is captured by Beta. Prices are decided through adding a certain amount to the estimated material cost of the order. This amount is called added value and is defined as price minus material cost. The decision on how much added value to apply is unstructured in the sense that it is not the result of a formal policy or decision rule. Instead, the decision is made by the sales and marketing manager (or the management team) together with the responsible key account manager after having assessed each individual situation and discussed the project within the account team. According to the general manager and the sales and marketing manager, the decision is made by taking into account a number of market and cost related factors. The key factors that are emphasized are.

1. Type and level of competition
2. Size of project and importance of price to customer
3. Customer strategy
4. Customer's customer
5. European or national account



6. Prices on transfer projects
7. Life cycle of the customer's product
8. Customers purchasing strategy (number of suppliers)
9. The routing of the project
10. Demanded level of service
11. Liability and risk

Figure 6.4 illustrates the mechanism described above.

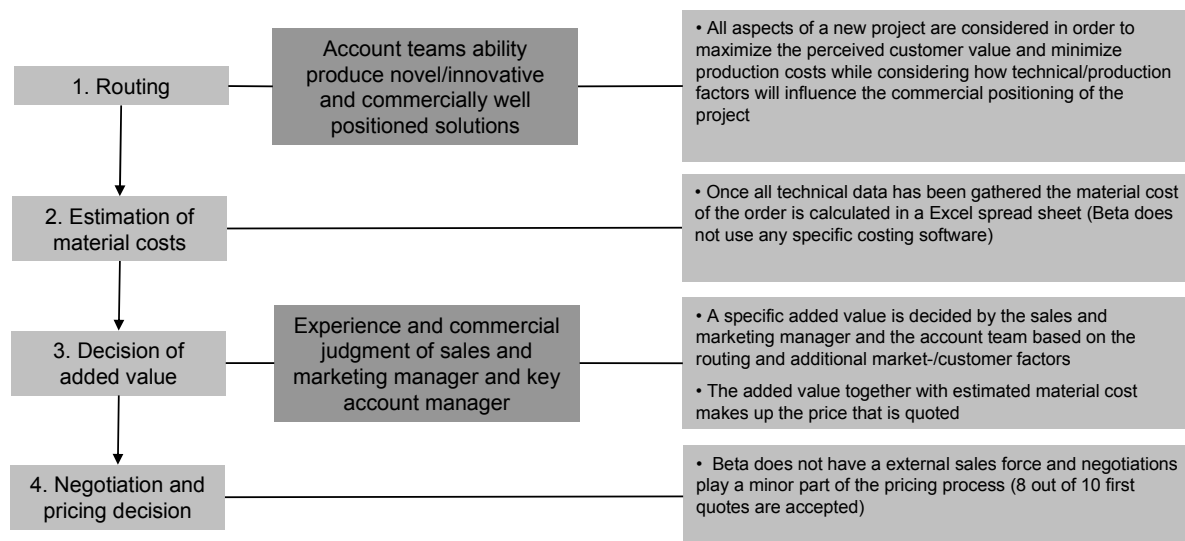


Figure 6.4 Pricing at Beta.

### 6.3.5 Pricing without costing software

I think that there is a very big advantage to not have a structured or defined pricing system [i.e. costing software]. That is how we get rid of the commodity approach. If it is a little bit dark for the customer, not a clear structure, a cost break-down with paper, contribution, deprecation... Then it is mechanical, transparent and understandable, that is selling a commodity. If we make it little confusing for the customer, the complexity of the business, the service demand, that and that, then it is not so easy to go for the cost savings and cost attack, and also, it is not so easy for our competitors to understand our way of thinking. (General manager, Beta)

Beta does not use any costing software for the purpose of pricing. In this regard, Beta stands out with its more simplified and estimation-oriented approach to calculating costs. The order costing at Beta is based on simple estimations. The material cost of the order is calculated

on an Excel sheet and the rest of the cost items are approximated, when needed, using predefined percentages.

The pricing of Beta is not dependent on knowing the exact costs prior to making the pricing decision. This lack of costing software is in some sense a strength, as it leaves room for a more market oriented focus. However, it could also be argued that having valid cost information prior to making the pricing decision does not in itself exclude the opportunity of basing the decision on market data. The reason given by respondents for not depending on cost information is that the situation facing Beta, and the requirements of customers, is very fast changing. Thus, detailed cost information beyond material cost is not seen as very important. All the different cost items that could be calculated are instead included in the added-value measure.

The benefits of the current approach are heavily emphasized by both the general manager and the sales and marketing manager. Having access to more sophisticated costing systems is seen as creating an illusion that it is possible to price an order without understanding the market or knowing the customer you are pricing. Cost-based pricing is relatively easy and quick (if you have the costing system in place) and therefore easy to get used to. However, it also neglects market aspects and the innovation that according to the general manager is present in a good routing of a product. Hence, the bottom line of Beta's approach is the notion that pricing based on the added value creates an organizational incentive to spend more time on analyzing the market and the customer's business, an incentive that would be lost when placing too much weight on production costs.

### 6.3.6 An ad hoc approach to market information

If we were in Sweden we would probably do that kind of segmentation and structure.[...] We like very much the freedom, and like less the structure, than you do in Sweden, or someone in the UK. (General manager, Beta)

Aggregated customer information is not used in a systematized way to inform the individual pricing decision. However, customer segments are used to structure market and customer information, and organize the work of the key account managers. Each key account manager is

responsible for one or more customer segment. This set-up makes understanding of the individual customer easier and thus also deciding what price to apply. Customers are grouped into different segments based on industry (i.e. electronics, automotive, FMCG, etc.) and the type of products they are buying.

Each individual customer's willingness-to-pay is assessed in terms of an added value rating that is used to price the inquiry. The added value rating is solely dependent on the individual judgment of the particular customer and not directly connected to the segment that the customer belongs to. According to the general manager, this lack of systemization in how segments are used to set prices is a deliberate choice. Using a system of predetermined parameters for arriving at the added-value is seen as a one possible approach by the general manager. However, inherent complexities in the packaging industry related to customization, the number of different products, and the sheer magnitude of product variations, constitute important obstacles for developing such a system. In addition, as indicated by the general manager, the mentality of the people in the organization, who favor a more entrepreneurial approach, constitutes a second important reason for why practices are not systematized.

Competitor information plays a vital role for deciding the added value that Beta uses to set prices. The sales and marketing manager has the main responsibility for making sure that this information is collected and analyzed. However, Beta does not use any system or formal routine to gather or structure this information. Rather, Beta and the key account managers rely on the sales and marketing manager's personal experience and skill in this area when assessing a new products (and what value-added to apply). In addition, the key account managers get some information about competitors when speaking to customers. However, this information is again personal and only communicated in an informal way upon request from other co-workers.

### 6.3.7 Pricing capability at Beta

The part of the local packaging industry serviced by Beta was characterized by service differentiation driven by large electronics companies and contract manufacturers that required complete packaging solutions, extensive service, and in some cases, outsourcing of the entire packaging

function. Beta's strategic position was based on a close relationship with the electronics segment, which had created a differentiation opportunity based on the specific requirements of this segment. This enabled Beta to develop a product portfolio that was not directly comparable to any of its major competitors and hard for customers to benchmark based on price. The fact that the product offer contained extensive service components (sourcing of different packaging materials, integration, etc.) that were less associated with paper prices and processing costs led Beta away from a traditional efficiency and cost-oriented focus towards a value-based strategy. The strategic position briefly recapitulated above partly explains the type of pricing policy found at Beta.

Beta's pricing policy can be labeled *Value-based pricing*. The objective and outcome of this policy was price discrimination (in terms of capturing commercial opportunities as they occurred). This outcome was achieved by setting the price in a highly flexible manner according to an assessment of the individual customer's willingness-to-pay in each situation. Naturally, this resulted in prices that varied significantly across customers that attributed differential levels of value to the product. Key characteristics of the pricing policy at Beta are displayed in Table 6.8.

Table 6.8 Key characteristics of pricing policy at Beta.

Characteristic	Observation at Beta
<b>Label</b>	<i>Value-based pricing</i>
<b>Key dimensions</b>	
Price discrimination	Prices are highly flexible to individual customer's willingness-to-pay and competitive situation
Price elasticity leverage	Prices are based on an assessment of market factors affecting the customer's willingness-to-pay and the competitive situation (using added value on material costs as a key parameter)
Operating leverage	Costs have a very limited impact on price
<b>Reported benefits</b>	Price discrimination

The pricing process at Beta was primarily characterized by a strong focus on activities related to the preparation work or routing done by the account team and the team-based discussions leading up to a decision on the added-value to use for pricing the order. Hence, desired levels of price discrimination were achieved through, in the first step, exerting

significant resources routing each new project to make sure that it was both technically and commercially well positioned towards the targeted market segment and the value drivers in that segment. The second step implied choosing an amount of added-value that matched the actual level of perceived benefit inherent in the offer. Both these activities were externally oriented and focused on the market viability of the offer, while the role of production costs was downplayed. The key pricing activities are outlined in Table 6.9.

Table 6.9 Pricing activities at Beta.

<b>Pricing activities</b>	<b>Observation at Beta</b>
Evaluation and planning	(not a key activity)
Customer assessment	<b>Key activity</b> Highly flexible and idiographic team-based assessment of each new account
Preliminary pricing decision	<b>Key activity</b> Price is set based on customer's willingness-to-pay which is assessed in a team-based investigation and specified in terms of added value
Negotiation	(not a key activity)

The key pricing activities summarized above were enabled by a particular set of capability elements that have been introduced throughout the case. These capability elements are listed in Table 6.10.

Table 6.10 Pricing capability elements observed at Beta.

<b>Type of capability elements</b>	<b>Observation at Beta</b>
1. IT-based systems	(not a key element)
2. Price parameters	Added value
3. Commercial organization	National-level account team-based organization
4. Pricing authority	Pricing authority held by sales & marketing manager (and key account managers)
5. Incentive controlling arrangements	(not a key element)
6. Commercial experience	Identifying commercially well positioned solutions and their corresponding added value

The pricing capability at Beta was, as indicated by the type of pricing activities performed, centered on the routing of new projects and the assessment of what added-value to use when pricing individual orders. The key elements enabling these activities are stated in Table 6.10. The most fundamental forms of capital identified in the case were the commercial experience of the sales and marketing manager and the key account managers together with different elements related to the organizational set-up, including the use of a national key account team organization (instead of traditional sales organization with external and internal sales reps), and the routinized use of added-value as a key pricing parameter (instead of costs). A striking attribute of elements identified at Beta were the lack of systems. Instead of cementing the generation and use of particular information needed in the pricing decision in a technical system, such as a costing system, Beta relied extensively on the ability of individuals within the organization to gather and put this information to use. Correspondingly, the type of control over individual behavior that was accomplished by tying action to the technical attributes of a system, was accomplished with organizational means, such as having all pricing decisions made by a small group of key account managers at one location under the close supervision of the sales and marketing manager. However, the primary reason for the lack of systemization and formal regulation was, as has been highlighted throughout the case, the explicit objective of Beta to achieve a pricing policy that was greatly adaptable to the individual situation and the customer's willingness-to-pay. In the case of Beta this meant sacrificing elements of formal control and systematized information gathering.

The case presents several indications regarding the dynamic process by which Beta's pricing capability emerged. Central to this process were the early established ties to the local electronics segment and development of the service element in the customer offer according to the segment's special needs. This process resulted in a non-comparable product offer with important service elements, which because of the lack of correlation between tangible costs (such as material costs) and the actual resources consumed by the product offer, was badly suited for cost-plus profit pricing. A natural alternative to cost-based pricing was to more directly focus on the customer's willingness-to-pay in each order situation, thus, assessing the characteristics of the customer and factors related to the relative benefits the customer received from the offer.

Hence, the type of pricing practices observed at Beta can, to a large extent, be attributed to characteristics of the industry environment and the fact that many large electronics companies and contract manufacturers moved their manufacturing in the nineties (during the same time as local operations were set up). Another reason was the particular managerial initiative of breaking with the long tradition of efficiency and cost-oriented approaches to pricing that were commonplace in SCAP.

## 6.4 Gamma

Gamma is a multi-site organization with two box plants, three sheet plants and one head office (containing general management, sales and commercial department). The current organization came into being in 1999 as a result of SCAP's acquisition of another packaging company.

### 6.4.1 Introduction to pricing related activities at Gamma

The operational pricing process at Gamma can be described according to three activities.

*1. Customer assessment* – Pre-market activity is conducted by the external sales force working from Gamma's commercial headquarters. It consists of bringing in orders from new customers, nurturing the relationship with current customers (including discussions regarding changes in customer's product portfolio) and gathering market information.

When an inquiry is brought in, the external sales rep registers it in the NPD-system ("New-product-system"). The information entered into the system contains a specification of the product (sizes, board grade, print, etc). The information is then either sent to the design department for further processing or, if it is a simpler product or a product which has been produced before, directly to the pricing department. At the stage of the process when the inquiry has been entered into the system by the external sales rep, the inquiry is also assigned to an internal sales rep who will manage the practical details of the order such as additional information from CBS (corrugated business system) about similar products.

2. *Preliminary pricing decision* - When the inquiry has been registered, it is automatically relayed to the person responsible for the pricing decision at the pricing department (commercial manager). The commercial manager can then look up the history of the inquiry and see how all the steps have been carried out. In the normal case, the pricing department then has 24 hours to price the inquiry. If it is a new product, the pricing decision is usually made based on a full cost calculation plus an added margin (10-15% for a ordinary new customer). If it is a pricing decision for an old product, the new price will normally be based on the old price. Services or special attributes of the product offer are not priced separately, but built into the price of the product by adding an estimated extra percentage to the calculated price.

3. *Negotiation* - Once the pricing decision has been made, the quotation goes back to the sales rep responsible for the account who communicates the price to the customer. At this stage the customer is allowed to give input on the price. If the customer considers the price to be too high, the sales rep communicates this back to the commercial manager who then makes a decision of whether to comply with the customer's request. According to the commercial director, Gamma's approach to customer negotiations is different depending on the situation and type of customer. In a tender situation with a large customer and a number of suppliers bidding for the business, the process is always played out in rounds where the objective is to make it to the next round of bidding. Because quoted prices never move upwards the objective is to quote a price that just allows Gamma to move on to the next round without giving away too much money. The tender situation is special because the suppliers who participate are expected to come down in price during the bidding process. In non-tender situations, normally with smaller or midsized customers, the commercial manager stresses that Gamma is very careful about reducing prices following negotiations as this would encourage the wrong type of customer behavior. This means that, even though prices are occasionally reduced following a request from the customer, Gamma has to show the customer that a first quote will not automatically be reduced. In contrast to customer price negotiations being a significant part of the pricing process, the commercial director stresses that it is in Gamma interest to make price a non-issue in the interaction with the customer. This is accomplished with long-term contracts that only move based on paper price movements that,



although fixed in price, often give the seller opportunities to increase margin as conditions, such as paper price or product portfolio, changes.

In the situation where an initial quote is not accepted, it is normally the strategic value of the account that is considered, i.e. if there are strategic or long term reasons why Gamma would want to acquire the account at an initial lower price. For smaller accounts this decision is made by the commercial manager, and for larger accounts, by the commercial director (or the sales director).

#### 6.4.2 Customer relationship and account management as basis for differentiation

Can our competitors make the same things we are making? Absolutely! They can, they have the capability of doing it, but they have not done it during the last 5-6 years. We have differentiated ourselves from competition in quality, service and around other areas of account management and the customer's view of stability, and consistency in relationships. In all of these things we have managed to create a differentiation that is not really on product in the sense that we have products that only we can make, absolutely not. (General manager, Gamma)

When SCAP's local operations merged with another packaging company in 1998 two somewhat different strategies conjoined. The acquired company had been applying a strategy focused on specific high value-added niches, which meant that they did not approach large customers. According to the general manager, this focus changed somewhat when it was incorporated into SCAP. Gamma retained some elements of the more niche-oriented and differentiated approach, but in a more moderate form. Another consequence of the merger was, according to the general manager, that Gamma adopted SCAP's more cost-oriented focus and was able to significantly reduce costs.

As indicated above, Gamma has an explicit focus on the high ends of the local market where price competition is less significant. In this respect, Gamma differs from the majority of firms in the UK corrugated industry that to large extent apply a more commodity oriented approach to corrugated packaging. Rather than selling "just a box", the strategic position of Gamma is built on having a close relationship to customers, while delivering a level of service and quality, which enables them a premium over competitor. According to the financial manager,

this involves approaching the market in a customer by customer fashion, constantly judging the potential of the incoming orders.

The differentiation of Gamma is not mainly built on unique product characteristics in the sense that Gamma is able to produce products that their competitors cannot. Hence, the current differentiation of Gamma is not dependent on restrictions in competitors' production capability, but rather a result of a strong relationship to important companies in the local spirits industry that was built following a strategic choice to develop attributes related to service level, account management and customer relationships. These are attributes that, according to the general manager, did not fit the whole range of customers in the market, but allowed Gamma to capture important and profitable accounts. Hence, Gamma's differentiation seems to be less dependent on tangible elements of the product offer.

According to the commercial manager, it is extremely important for customers to avoid delays or problems in their packaging line as this could potentially force them to stop production. These packaging problems come in two forms, timing of deliveries (so the customer has the packaging at the right time) and quality problem (so that the packaging line runs as planned at the production line). This is the basic nature of what is referred to above as being able to differentiate on service and long-term stability. Thus, a quick response, flexibility and the ability to coordinate performed activities are crucial elements of Gamma differentiated position.

The financial manager characterizes Gamma pricing policy as market oriented "opportunity pricing". The pricing policy is based on a notion of customers being different with regard to their willingness-to-pay, which in turn creates pricing opportunities when approaching a new customer or renegotiating contracts with old customers. Following this line of reasoning, the commercial manager is careful not to portray the costing system or any of the costing practices at Gamma as strategically important for pricing purposes. Instead, the commercial manager emphasizes experience (and the fact that he has been in the company for over 30 years), and the organization (allowing communication between departments and the development of one common policy), as important pricing resources. Hence, systems are generally not thought to be of great importance to the pricing of Gamma. The reason for this is,

according to the commercial manager, the assertion that “everybody’s got a system”. The prime benefits in pricing of having a properly working costing system are, according to the commercial manager, more indirect in that the system helps the decision maker when turning down unprofitable customer. Moreover, it increases the confidence in the decisions being made, thus strengthening the commitment to a certain pricing policy.

Decisions regarding pricing policy are made in conjunction with the yearly budgeting- and forecasting process so that forecasted volume and average price match profit objectives. According to the commercial director, the pricing policy tends to be directed towards advancing prices on a slow and steady rate as opportunities arise while focusing on specific strategic accounts. The overall objectives for the coming period are decided by the general manager who sets specific objectives for the sales and commercial sides of the organization. The overall objective with regard to price, which is the responsibility of the commercial director, is set as an average price per thousand square meters of corrugated board (KSM). According to the commercial director, Gamma uses a price per KSM as a benchmark for this trade-off between volume and price, which means that prices below this point are normally rejected (if there are no strategic reasons for accepting a particular order). Although the commercial director describes the process addressed above as containing different steps and financial benchmarks, he also emphasizes the sustained endeavor to find new opportunities for improving margins. This kind of rather informal attitude (without significant formal control mechanisms) towards issues of pricing policy is, according to the commercial director, possible because of the small number of people involved in these decisions and the fact that they are all located at the same site. This is also the logic by which the pricing policy of Gamma is communicated down the organization to the pricing department, meaning that the persons setting the day-to-day prices are schooled in acknowledging and taking advantage of market-opportunities when new products occur or when the specification of old products are changed. In this way, a high level of commercial flexibility and responsiveness to market signals is utilized.

According to the commercial director, there are two basic principles for carrying out price changes at Gamma. First, average prices are indirectly

managed through changes in the product mix, so, for example, less value-added products are replaced by more value-added products, which is basically the same as drawing a line at a certain amount per KSM and then trying to raise prices that are below this amount or trying to get rid of the product (i.e. corresponding to the price per KSM benchmark described above). The second principle relies on changing the price index (PI)<sup>47</sup> that is applied to orders so that, for example, a current price index of 105 is changed to 110. However, the approach of directly and explicitly changing a price through the PI is seen as organizationally controversial and would likely result in objections among the sales force (in the case of price increase). This has led to a practice of not communicating price changes directly, but rather just implementing changes without informing the organization, for example by dropping particular customers or changing the price cut-off point.

### 6.4.3 A centralized pricing organization

Other businesses have their pricing operations in different sites and they have lots of different people involved in the pricing process. If I was offering anyone any advice in a regionalized operation like ours I would say: “Have one commercial center, have one team of people, because with one team of people you will get one common policy”. If you have two different sites doing it, you will not get a common policy. I would certainly tell them to do that. And, have these guys understand what is expected from them. We placed our commercial center here and we have two very strong guys, we are very lucky. Other places have all kinds of sales people involved in pricing. (Commercial director, Gamma)

The current Gamma was originally two separate companies. In 1999 SCA Packaging bought the corrugated division of the other company and the two organizations were merged into one single profit center. At the time of the acquisition, the management teams of the two companies decided to run operations as one single profit center with several manufacturing sites. The new management team consisted of a general manager, commercial director and sales director, based at the head office, and a director of operations based at the main manufacturing unit.

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<sup>47</sup>PI is based on full costs, i.e. a PI of 105 means a price that is 5 % above full cost.

According to the commercial director, the idea behind Gamma's organization is to run the whole national operation as one business (profit center) with one sales force and one commercial center. This allows Gamma to approach the market in a coherent way with one single strategy and commercial approach. As noted above, a specific characteristic of Gamma is the organizational separation of pricing and sales responsibility between the commercial director and the sales director. The sales director is responsible for the external sales force and for making sure that a sufficient volume is attained. The commercial director, on the other hand, has the main responsibility for pricing incoming orders. The day-to-day costing and pricing is administered in a small "estimating and pricing department", which is run by a commercial manager, and his assistant. The commercial manager works closely with, and reports directly to, the commercial director.

The separation of the sales/commercial responsibility is stressed by the commercial director as an important characteristic of the present organization. Having one member in the management team who is solely responsible for sales margin, and another member responsible for volume, is an explicit policy of Gamma that helps the organization avoid the volume focus that is widespread throughout SCAP. This conclusion builds on the notion that a sales director who is responsible both for making sure that sufficient volume is achieved and that prices are set at an adequate level is likely to be affected by this dual responsibility when making pricing decisions. The organization of this matter at Gamma is, according to the commercial director, built on a setup where the commercial and sales directors act as each other's "conscience" thus satisfying both the volume and margin requirements of new orders.

All pricing decisions at Gamma are made on two different organizational levels (note that sales reps have no input on price other than providing the decision-maker with information).

- Commercial manager
- Management team

The ordinary day-to-day pricing is conducted by the commercial manager in the pricing department. This involves pricing of smaller and midsized new business and managing the continuous changes that occur in the product portfolio of established customers (i.e. changes in

individual products or specifications, etc.). In situations where a customer rejects a price presented by the estimating department or when a larger order is being priced, the pricing decision is normally made on a management team level. This might involve tenders or large strategic customers that are priced at a very competitive level. Hence, all pricing decisions at Gamma are made by experienced persons who command a high level of authority in the organization. The organization of Gamma's pricing is illustrated in Figure 6.5.

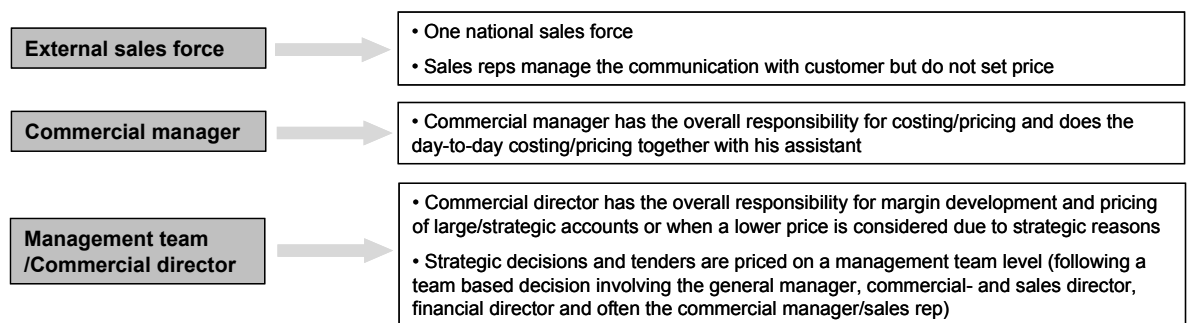


Figure 6.5 Organizational levels involved in pricing at Gamma.

According to the commercial director, the basic organizational challenge in making correct pricing decisions is creating a structure where the pricing decision is owned by people at a senior level in the organization. Normally, there is a constant “conflict of interest” going on in organizations, where the sales force sees it as their job to please the customer and make sure that new business is brought in, while operations’ main interest is to be able to run work through the plant as efficiently as possible. If pricing is not owned at a senior level in the organization the risk is that that the pricing decision will only be made to satisfy the objectives of the sales force or operations.

The pricing of Gamma is characterized as “opportunity pricing” meaning that prices should always be set so that they capture the individual commercial opportunity. This requires that the person making the pricing decision is experienced enough to recognize opportunities when they occur and that he has enough authority to make an independent decision that is accepted by the rest of the organization. The situation described above is contrasted by the financial manager to the situation where pricing is “system-driven”, meaning basically that pricing decisions are made in accordance with a certain automated process that excludes individual judgment. This practice is, according to the financial

manager, highly undesirable and related to pricing authority being delegated too far down in the organization to people who are not able to acknowledge opportunities when they appear.

As mentioned above, strategic pricing decisions (i.e. for tenders or large customers) are made on a management team level in the organization. The way the strategic accounts are priced resembles the use of a pricing committee. However, rather than being a formal committee, the approach at Gamma has more of an ad hoc character, with membership in the committee changing depending on the customer. The persons normally present are the general manager, the commercial director and the sales director. In addition, the financial manager and the commercial manager are often allowed to give input to the decision. This spread of competencies and different perspectives on the pricing situation is brought up as an important strength in how Gamma prices strategic accounts. The presence of the finance manager in these informal pricing meetings is especially emphasized by the commercial director. On a daily basis, the general manager, the sales manager and the commercial manager are heavily involved with the large customers served by Gamma, which makes it more difficult for them to be strictly objective in the pricing decision. Having the financial manager come in and look at the commercial aspects of an account from what is described as a “cold accountancy view”, helps making an objective decision.

According to Gamma’s pricing organization, the quoted price is decided by either the estimating department or on a management team level. The sales reps are not supposed to be involved in the pricing decisions; still it is these who manage negotiations with customers. Thus, the set-up of pricing authority at Gamma would make the customer negotiations following the quotation rather unimportant for the price that is finally agreed upon. However, according to the commercial manager, the sales reps are often given room to maneuver within predefined limits set by the commercial manager. This involves a procedure where the sales rep, before visiting the customer, is given a target price and a minimum price, which gives the sales rep some degrees of freedom to adjust the offer to new information and the reaction of the customer. A second function that the customer negotiation plays in pricing shows itself in the situation where a sales rep has been given a price to quote and the customer rejects the offer. In this situation, the sales rep

normally gets back to the commercial manager who then has to make a decision of either to agree with the demands of the customer, based on the additional information about the customer's reaction, and reduce the price, or to drop the customer.

The sales reps general lack of influence over prices at Gamma is reflected in how bonus or incentive systems are organized at the unit. According to the commercial director, the sales reps do not receive bonus or variable incentive pay based on their individual performance. Instead they are evaluated against an annual volume budget. This is motivated by the fact that with the present set-up with the pricing authority centralized to the commercial manager (and the commercial director), sales reps are unable to influence prices, and therefore neither changes in volume that are dependent on price levels.<sup>48</sup>

#### 6.4.4 Pricing based on the commercial opportunity

We do not do cost-based pricing here. We are market-focused and do more opportunity pricing than I think a lot of our colleagues do. [...] A lot of pricing opportunities comes from your existing customer base as people change their packaging. That gives us an opportunity to push our prices up a bit. For new business, where we are trying to bring in new customers, you start off by trying to bring in information on where their prices are. We know for several customers where our price range is, and that would be the aspiration. If we through market intelligence determine that this guy is at a different level, but still in an acceptable range, then we would probably be pitching on that level. We are always seeking the market price, and as the leading company, we also feel we should, and can, add a slight premium on where the others might be. (Financial manager, Gamma)

The pricing department at Gamma sets the price for individual orders based on the personal experience of the commercial manager and the basic benchmark provided by the full cost calculation. The costing system used at Gamma provides the decision maker with a number of cost measures. However, according to the commercial manager, Gamma applies a quite simplistic way of using this cost information in a normal pricing situation. Hence, even though a number of different parameters are automatically available, pricing decisions tend to be evaluated based

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<sup>48</sup>Gamma does however have a general bonus system in place that covers the whole staff and is based on the unit's total profits.



on simple cost measures and the generated margin. In situations where larger orders are priced (for example in a tender), the analysis tends to be more detailed containing additional cost information set up on an Excel spreadsheet.

According to the financial manager, Gamma has been able to push prices from a strictly commercial mindset, and hence, capture high prices when opportunities occur. One important part of this approach to pricing is not to rely on the costing system to substitute commercial judgment. Rather than using the cost calculation as a pricing tool, Gamma's pricing is built on the view that the cost calculation is an estimation of the potential profitability of the order. Hence, although the pre-cost calculation system, according to the respondents, plays a limited role in addressing the commercial aspects of the pricing decision, it is an important tool for understanding or estimating order profitability.

Despite the fact that the costing system is the only tool or system that is used in Gamma's pricing, it is described more as a form of support tool rather than as an actual determinant of price. The commercial manager describes the pricing of Gamma as reliant on personal experience and a common understanding that every opportunity to increase prices should be seized. This means that pricing decisions are made to a large degree based on subjective judgment. According to the commercial and financial manager, the judgment described above, although governed to a considerable extent by "personal feeling", relies on a number of factors that estimate the customer's willingness-to-pay. The key factors presented are:

- The complexity and risk of problems in the routing of the order
- Information about the customer obtained from the sales force
- The type of industry or segment the customer is operating in
- The reaction of the customer in negotiations and in prior quotations

The pricing mechanism of Gamma is summarized in Figure 6.6.

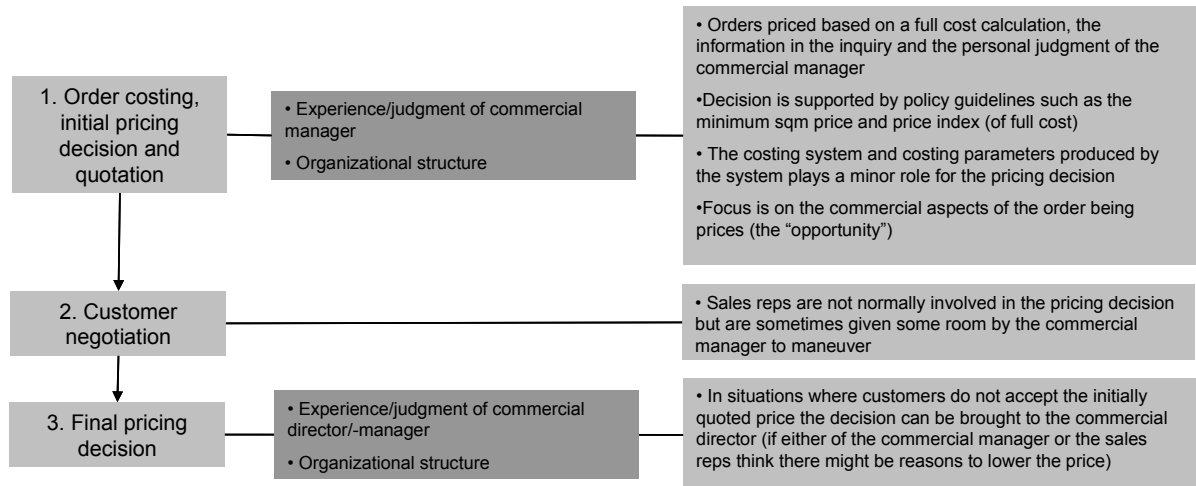


Figure 6.6 Pricing at Gamma.

### 6.4.5 Product costing and the identification of commercial opportunities

This is one of these things. You have control over costing and you can make that as accurate and good as possible and add all sorts of information, but the price is what the guy buys it for! If you have a competitor whose pricing has no clue. I have one or two competitors, and I can tell you what they will sell at because they will just take the board cost and put something on it. That is how they base their price and the customer is paying that. So, your decision is not a costing one. I do not know how it will give you an edge. It would probably work better the other way, it would probably point out that you do not want to touch some orders. I can see that being an advantage where you can look at a price and say: "Absolutely no way do we want to go down that road!".  
(Commercial manager, Gamma)

The costing system of Gamma is based on a full cost principle. The main profit parameter, produced by the system is fully absorbed margin, which is represented in absolute terms and as a price index (PI). The costing system is based on production data that is directly fed into the system and accounting data that is first grouped on an Excel spreadsheet and then registered in the costing system as rates per cost driver unit. All the accounting data that is used to calculate the cost rates are based on budgeted levels and updated manually. Despite the quite standard approach described above, there are several issues regarding the accuracy of the costing system. Because the system needs manual updating there is a certain level of discretion for how often Gamma chooses to update the system. According to the commercial manager,

this is not really done at any pre-defined intervals but only when the version is changed or when a major change occurs. This is a practice that increases the risk that the cost levels applied in the system will drift further and further away from real costs over time. A second issue is the notion, expressed by the commercial manager, that the costing figures should represent a worst case scenario (rather than a best guess of what the actual costs will be). This line of reasoning follows a logic quite common in SCAP that stipulates that calculated costs should include a safety margin that supposedly guarantees that prices under no circumstances are set below actual costs.

The order information from the costing system is used to produce three different reports; standard financial reports for the period, customer sales reports (present average selling price per KSM and volume), and order pre-cost calculations used to evaluate individual orders. One interesting attribute of Gamma's reporting is the level of attention that seems to be given to the average price per KSM as a factor in evaluating commercial performance (in contrast to using a cost-based measurement). By using this measurement as a steering tool to evaluate the potential of individual customers and segments, the focus of interest is to some extent shifted from costs to revenues. According to the financial manager, this is a deliberate choice of focus that is warranted by an ambition to be market-oriented and by a generally skeptical attitude towards letting the pre-cost calculation have too much influence on pricing decisions.

#### 6.4.6 Ad hoc assessment of pricing related market factors

There was a suggestion once that the sales should all have laptop computers with an estimating programme built in so they could sit in front of the customer and produce a price. My view is that if you do that, any opportunity to cost [i.e. price] above that level is lost because the easy solution for the salesman is to just push a button and it throws a price up and he says; "It is 896 per thousand, sir", when actually he could have got a 996 per thousand, but he does not do it because he presses the button and believes what the computer tells him. So I think that is a very dangerous game if you try to make pricing mechanical or automated. I think you lose the human touch and you lose the opportunity to sell it at the value that the buyer perceives, as opposed to leaving a whole lot on the table and the buyer rubbing his hands because he thinks he has just done great. I think there is a danger in that. So, I

think we are strong because we have one department with a couple of guys in it who are very trained and very tuned into what we are trying to achieve as a business, and we do not involve anybody else in it. They [the sales reps] all have input, we draw all that information from the sales force, they are vital, but salesmen here do not fix margins. If they want to take a margin down they have to come to us, and we control it, because if you do not, it will just run away from you, not just because people are bad or have bad intentions, but because they are under pressure of potentially losing a sale or a customer they will be less objective than we will be back here. We can be much more objective. So, hold the decision-making process in the place that has objectivity and if you are close to it and it is subjective you can easily make a poor decision because you are in for the wrong reasons. (Commercial director, Gamma)

According to the financial manager at Gamma, a significant price determinant is the industry or segment that the focal customer is operating in. An important element of Gamma pricing policy is thus to manage the mix of business between low price business (for example the food industry) and customers who are willing to pay premium prices (for example the spirits industry).

Gamma does not apply a formal segmentation system in its pricing process, which means that prices are not directly influenced by the type of industry the customer operates in. However, as mentioned before, the grouping of incoming business based on price per KSM and customer industry illustrates how information on differences between different customer segments can affect the pricing decision indirectly through the judgment of the commercial manager (for example, the average mass food producer will not accept the same prices as the average spirits producer). This analysis is however not done in a systematized way other than in the monthly sales reports showing the average selling price and volume across segments and main accounts.

#### 6.4.7 Pricing capability at Gamma

The part of the local packaging industry serviced by Gamma was characterized by service differentiation and close relationships between packaging suppliers and customers (partly upheld by the geographically delimited character of the market). Gamma's strategic position was based on a close relationship with the local spirits segment, which cre-

ated differentiation opportunities based on the specific requirements of this segment. This resulted in a product portfolio that was not directly comparable to competitive offers and hard for customers to benchmark based on price.

Gamma’s pricing policy can be labeled *Opportunity pricing*. The objective and outcome of this policy was price discrimination (and capturing commercial opportunities as they occur). This outcome was achieved by setting price in a highly flexible manner according to an assessment of the individual customer’s willingness-to pay in each situation. Specific attention was given to the opportunities that arise once a customer had been acquired, often under very competitive circumstances, to incrementally increase prices as opportunities occur. Naturally, this resulted in prices that varied significantly across customers and their willingness-to-pay. The key characteristics of the pricing policy at Gamma are displayed in Table 6.11.

Table 6.11 Key characteristics of pricing policy at Gamma.

Characteristic	Observation at Gamma
<b>Label</b>	<i>Opportunity pricing</i>
<b>Key dimensions</b>	
Price discrimination	Prices are highly flexible to individual customer’s willingness-to-pay and competitive situation
Price elasticity leverage	Prices are based on an assessment of market factors affecting the customer’s willingness-to-pay and the competitive situation (using price/KSM and price index of full costs as a key parameters)
Operating leverage	The full cost calculation is used as a benchmark for evaluating and justifying prices
<b>Reported benefits</b>	Price discrimination

The pricing process at Gamma was characterized by a strong focus on activities related to the project definition phase conducted in a CBS environment, and the preliminary pricing decision made by the commercial manager. Desired levels of price discrimination were achieved through relying extensively on the pricing authority centralized to the commercial manager, and his personal experience and ability to judge commercial opportunities. The organizational structure with a single commercial department with one person managing all day-to-day pricing

ing according to his personal judgment made the pricing decision reliant on personal knowledge. Thus, explicit properties of sub-activities were hard to single out in this process because they were carried out in the head of one person. However, the commercial manager himself attributed the success of these activities to his personal experience in the business and the particular organization Gamma has in place. Key pricing activities are outlined in Table 6.12.

Table 6.12 Pricing activities at Gamma.

<b>Pricing activities</b>	<b>Observation at Gamma</b>
Evaluation and planning	(not a key activity)
Customer assessment	<b>Key activity</b> Highly flexible and idiographic assessment of each new account is made by the commercial manager
Preliminary pricing decision	<b>Key activity</b> Price is set based on the individual customer's willingness-to-pay which is estimated by the commercial manager
Negotiation	(not a key activity)

The key pricing activities summarized above were enabled by a particular set of capability elements that have been introduced throughout the case. These capability elements are listed in Table 6.13.

Table 6.13 Type of pricing capability elements observed at Gamma.

<b>Type of capability elements</b>	<b>Observation made at Gamma</b>
1. IT-based systems	National pre-cost calculation system
2. Price parameters	Price/KSM and price index (full cost)
3. Commercial organization	National-level organization with responsibility split between commercial department responsible for price and the national sales department responsible for sales/turnover
4. Pricing authority	Pricing authority held by commercial manager
5. Incentive controlling arrangements	(not a key element)
6. Commercial experience	Judging the maximum willingness-to-pay of individual customers (i.e. taking advantage of commercial opportunities)

The pricing capability at Gamma was, as indicated by the type of pricing activities performed, centered on the preliminary pricing decision in terms of order costing and the judgment made by the commercial manager. The key elements enabling these activities are stated in Table 6.13. The most fundamental elements identified in the case were the personal experience and skill of the commercial manager together with different elements of the organizational set-up, including the delegation of all day-to-day pricing responsibility to one commercial manager and the divide in responsibility between a national commercial department handling issues related to price and a national sales department responsible for turnover.

A striking attribute of the elements identified at Gamma was the specific role of the costing system. The costing of incoming orders in CBS was routinely executed by the commercial manager and the routines surrounding these procedures were emphasized as a natural part of the pricing process. However, although routinely executed, the commercial manager and several other respondents emphasized that the costing system was only of limited importance in arriving at specific price points. Rather, the costing system provided a form of baseline security to the process that enabled Gamma to justify sorting out unprofitable orders, and thus, increasing confidence and commitment to the unit's pricing policy.

The case presents several indications of the dynamic process by which Gamma's pricing capability emerged. Central to this process were the early established ties to key segments in the local corrugated market, such as the local spirits industry, and the events around 1999 when SCAP merged with another packaging company. This induced Gamma to develop, and make explicit, the current strategic focus (extended service, and a close relationship with key customers), pricing policy (commercially oriented opportunity pricing) and organizational set-up (national commercial and sales organization, centralized pricing authority, and responsibility split between commercial and sales departments).

## 6.5 Delta

Delta is a single plant organization that became part of SCAP in 2002 as a result of an acquisition.

### 6.5.1 Introduction to pricing related activities at Delta

The operational pricing process at Delta can be described according to three activities.

*1. Customer assessment* - Delta does not have an external sales force tied to the plant as most other SCAP plants in middle Europe. The external sales are working for a separate sales organization, SSO, which is a sales company within SCAP that sells the products of several SCAP plants within the region. There are normally two different routes for an inquiry from a customer; either it is brought in by the external sales organization (SSO) or, if there is an established contact with the customer, the customer contacts the internal sales reps or the sales manager at Delta directly. Especially larger customers or key accounts tend to take a direct contact with the internal sales department at Delta.

Once the external sales rep has made the initial contact with the customer and received a request, the inquiry process is started internally. This process is executed with the help of a specific inquiry tool. The tool is basically a form on which all key information about the potential order is recorded. Examples of the type of information recorded on the form are: construction, quantity per year, quantity per delivery, printing quantity, production quantity, minimum storage, price range and special comments about the order (for example; "X is one of the biggest suppliers" or "this inquiry also goes to X"). The form is either filled out by the external sales rep, the sales manager or the internal sales, depending on who is managing the contact. Entering complete information onto the inquiry form is an important means for being able to set a correct price later on in the process. According to the sales manager, the more information that is gathered from the customer on this form, the higher is the probability that the price suggested in the first offer will be the correct one. When the inquiry form is completed with all the attributes requested by the customer, design and development sets out a product proposal that is sent to the customer either in the form of drawings, a virtual design (a digital model), or a physical sample. Even though the product is not routed through the plant at this stage it is important that the people who create the design of the packaging are aware of the production capabilities of the plant and the cost consequences of a certain design so that the packaging can be optimized from both a production and commercial perspective. When the proposed



packaging design has been approved by the customer, a pre-cost calculation is drawn up based on a theoretical routing of the order in the factory. “Theoretical routing” is a preliminary routing of the product through the plant, which is created in order to calculate the production cost of the order. The theoretical routing and the pre-cost calculation are managed by the cost calculation department who are specialists in finding the best routing of a product for pricing purposes and making pre-cost calculations.

*2. Preliminary pricing decision* - The pre-calculated cost of the order and the information that has been gathered about the inquiry (the customer’s situation) provide the basis for deciding the price presented in the initial quotation. Quoted price is decided by either the internal sales rep responsible for the account or the sales manager. The pre-cost calculation produced by the costing department is a full cost calculation (manipulated into showing costs significantly higher than “real costs”). Given the calculated costs, the price is then decided according to a mix of the modified full costs and other more or less commercial considerations. The basic logic of the decision is that the inflated full cost measure from the pre-calculation provides a base, which is then decreased depending on the competition for that specific product. According to the sales manager, it is all a matter of having knowledge about the customer and the production capabilities of relevant competitors, and being able to base the decision on it.

*3. Negotiation* - According to an internal sales rep, the negotiation following the quotation is focused on two issues: explaining the characteristics and value of the packaging solution, and agreeing on the price. The first reaction of the customer tends to be that the price is too high, which means that it is an important task of the external sales person to be able to shift the customer’s attention from the price to the special benefits of the packaging solution. According to the sales manager, the intention of Delta is not to reduce the quoted price one-sided. Instead, when a customer asks for a price reduction, the question is raised as to what can be changed both in terms of product characteristics and price to better fit the wishes of the customer. The sales manager explains this to be a way of always trying to create a win-win situation. The negotiations are an important tool in establishing a contact with the customer who gets given a chance to give feedback on the product (and possible

price). An internal sales rep explains how the negotiations are an important tool used for communicating the value of the product to the customer by showing him the product, explaining the special attributes or details, etc.

After the quotation has been sent to the customer and the customer has accepted, the order is routed in production. This is called a working plan by the sales manager and it defines on what machines and the way in which the order will run. These parameters have already been specified “in theory” in order to be able to produce the cost calculation. At this stage however, the final working plan (or routing) for the order is decided. This can differ from or be the same as the theoretical routing used in the cost calculation. The reason why this is not finalized earlier is because many inquiries do not result in an order. The main responsibility for creating a working plan and technical drawings for the product lies with the developing center at the plant. This is basically a process of optimizing the production of the order. The process requires the developing center to be in contact with the cost calculation department or the sales manager and to understand the commercial and cost effects of different technical solutions. In addition, any changes from the theoretical routing of the product have to be communicated back to the sales department as these will affect the cost parameters used in the pre-calculation.

### 6.5.2 Differentiation and the pricing of non-comparable products

The challenge is to earn money with the special products, which no competitor is able to produce. For the customer it seems that they have good prices because if he compares the more conventional products with the competitor, everything seems ok, but for the other products he cannot compare. He is not able [because they are unique to Delta]. We get orders because the customer thinks that the price is as good as for the conventional products. This is a big challenge for everyone working here to give the customer the feeling that we are very good in our pricing, very competitive, so that the customer does not notice that he overpays for the special products. (Sales manager, Delta)

Delta’s overall business strategy is product differentiation. The focal point is offering products and services with a superior and non-comparable value to the customer. The sales manager describes this

strategy, in terms of the product portfolio, as focusing on pre-print and advanced design. This type of product differentiation, dating back to when the plant was built in the mid-sixties, has been achieved by an early focus on larger companies in the local food and confectionary industry. This is an industry for which advanced print and design of primary packaging and in-store display are essential. From the very beginning Delta came to excel at high quality printing (pre-print instead of post-print) and advanced design. The focus of Delta was a result of the developments in the retail industry during the sixties where traditional small family-owned stores were being replaced with larger supermarkets. The emergence of large supermarkets resulted in packaging becoming one of the main instruments for food companies to influence the consumer's "in-store" experience of the product. This presented an opportunity for packaging companies to differentiate themselves through such things as high-quality printing and design. According to the sales manager, Delta was one of the first companies to bring these new ideas about packaging to market, which over the years has allowed Delta to develop a close relationship and tie to major brand leaders in the food industry.

The innovation and the use of the pre-print method for corrugated packaging were focused very early. So we were the first ones to bring this idea to market and it was a big success. Why did we do this? When the company was built in the mid-sixties there was a change in the trade scenery. I do not know whether it is the right expression, "mom and pop" stores, [...], very small stores where the lady gives you the product. This changed in the sixties as supermarkets came along. Over night, the packaging had a new dimension, because now it was the packaging that sold the product, and not the product itself. This was important because the customers cried for very good printed packaging. It was the first way to manipulate the consumer, to have a good packaging with the association of a good product. Forty years ago it was not possible to have a good printed packaging with the Flexo-print; you could only print directly on the corrugated board. With the pre-print came a totally new dimension of printing quality. Customers like Kraft food demand optimization for their packaging, that is the reason that up to now over 50% of our customers are coming from the food industry. (Sales manager, Delta)

Most customers demand that their packaging supplier not only accepts orders for advanced packaging, but also conventional packaging, which means that Delta is often forced to accept orders for conventional pack-

aging when acquiring a new customer. Having both conventional and more complex products in the product portfolio requires a somewhat different pricing. Conventional products are, according to the sales manager, used as a way of entering the customer's business; this requires that they are priced lower. Thus, the pricing of conventional products is intended to send the message that Delta is competitive, while more complex products are priced with a relatively higher margin, which is difficult for the customer to notice because he is not able to benchmark those products. Hence, the pricing policy of Delta relies on both market oriented considerations and a cost-plus profit approach for less comparable or differentiated products. The strategy stated above is related to Delta's pricing policy, which is built on a "customer by customer" approach that focuses on achieving stability over time in each individual customer relationship. Pricing is conducted in a fairly conservative manner that does not directly depend on the current utilization rate of machines. According to the sales manager, the pricing of Delta is different from many other regional packaging suppliers in that Delta does not adjust prices to counter short-term fluctuations in demand or machines' utilization.

The main instrument for developing and implementing pricing policy at Delta is the budget process. The yearly budget is built up once a year based on the structure of the total incoming turnover that is reported by the external sales reps by product group and customer. The budgeting process starts with all external sales reps meeting in Delta with a list of all customers and their current turnover. The meeting usually lasts for two to three days. Each external sales rep has a list of his customers with actual revenue figures. The external sales, together with internal sales, then set the budget per customer for the coming year (in turnover). Once the turnover is set for all individual customers the numbers are consolidated into a budget. The main procedure is bottom-up budgeting, but there is also a top-down element in the budget process in what is called in the "needing phase" in which plant management sends a signal to the sales reps that, for example, more volume is needed. The sales reps then reply by either saying that it is not possible or by adjusting the budget to the requirements.

In addition to the budget process, weekly profit reports also constitute an important tool for developing and evaluating pricing policy at Delta.

The management team meets once a week to evaluate the profitability of the product portfolio based actual post-calculated costs. Once a month actual post-calculated costs are compiled per order and customer and compared to budget in a more extensive report. Hence, one key element in the weekly and monthly budget follow-ups is the post-cost calculation system. This system allows Delta to evaluate the profitability of the individual customer and products based on reliable and actual costs rather than relying on pre-calculated costs.

### 6.5.3 National sales organization and local pricing responsibility

You can say that there is a conflict [between Delta and the external sales organization, SSO]. External sales are crying for turnover, you have to get the order, why, because the margin is not interesting for him, but this is my major interest, to get a good order. It is a conflict, but it works very well, at least over the last years. (Sales manager, Delta)

The traditional market approach in the corrugated industry is built on each plant covering a certain geographical area and the customers in that area. Individual plants are, however, different with regard to their product portfolio (because of specific knowledge or production capability). This means that customers in the geographical area covered by one plant, who are in need of packaging that cannot be supplied by the local plant, are easily lost to competitors. The corporate group, of which Delta was a part of until it was bought and incorporated into SCAP, had a different organizational set-up with a separate national sales organization (SSO). At the time of the study this still existed alongside the traditional plant-based sales organization. The idea behind this set-up was to have one separate external sales organization for the whole market. Operating with an independent sales company makes it possible to offer customers a complete portfolio of products and services regardless of where a certain product is manufactured. In this way, an inquiry can be directed to the plant that is most fitted for producing the order. The nationwide sales organization is called SSO and employs around 80 external sales reps and a sales director. The sales director is located near Delta along with approximately 25-30 external sales reps. Hence, there are two different types of sales organizations in place, one centralized national sales organization (SSO), serving about 95% of the

total turnover of the acquired plants, and one traditional plant-based sales organization.

The relationship between the individual plants and SSO is that of separate organizations. The local plant is responsible for prices while SSO, and the external sales reps, are responsible for turnover. The sales manager at Delta, who is responsible for pricing, does not report to the sales director, but to the general manager of the plant. This establishes a split in responsibility that, according to the sales manager, compels individual plants to balance the ambition of the external sales force to increase sales with the individual plant's ambition to gain a satisfactory price. Hence, the interaction between the external sales force, which is volume focused, and the internal plant organization, which is margin focused, creates a balance between different interests that is a vital part of Delta's market approach. The split in responsibility between SSO and the plant-based internal sales organization, illustrated above, also shows itself in employee incentives. A large part of the external sales rep's salary is based on a sales provision governed by turnover targets. The internal sales reps, on the other hand, receive a fixed salary.

The SSO system is mainly a customer focused organization that enhances the ability to offer, especially large customers or key accounts, a complete packaging solution. In contrast, the traditional plant-based organization is more product and efficiency oriented. However, the fact that SSO exists alongside plant organized external sales, significantly reduces the benefits of one sales organization. Further, the SSO does not fully seem to solve the coordination problem between plants with regard to larger accounts where more than one plant is involved. The main problem, according to the sales manager, is that different SCAP plants apply radically different pricing policies for exactly the same product. This is not a significant problem for more specialized products, for example displays or high quality pre-print, but for more conventional products that are made by many plants, this is seen as a serious credibility problem.

The sales manager at Delta is responsible for the internal sales department (including invoicing, cost-calculations and dispatch). The internal sales department contains approximately 20 sales reps and a special unit with two employees who are responsible for doing the cost calculation. The set-up with two "costing specialists" who do all the cost calcula-

tions is built on the notion that the cost calculations cannot be produced in a mechanical way if they are to result in a competitive and profitable offer. Thus, the challenge or main task is not only to produce a standard calculation, but to optimize the settings around the calculation so that the solution that is produced is competitive and profitable.

After the calculation department has produced the cost calculation, it is handed over to the internal sales rep responsible for the specific account who prices the order according to their own judgment and the cost parameters. The internal sales reps are organized into groups covering different geographical regions. The internal sales reps work in pairs, where one of them has the main commercial responsibility (pricing, etc.) and the other carries out the more practical tasks (like an assistant). This divide is underlined as an important characteristic of the sales organization at Delta as it relieves the person responsible for pricing from less important or administrative tasks.

There are certain established rules that dictate the freedom the internal sales reps have in making the pricing decision. According to the sales manager, the limit is 15% below calculated full costs. According to an internal sales rep, he can get three different calculated prices from the cost calculation department: low (variable cost), medium and high (full cost). There seems to be some uncertainty about the lowest price to which an internal sales rep can go, as it depends on what is usual for the particular customer. As stated above, according to the sales manager, the limit is full cost minus 15%. However according to an internal sales rep, this limit is (at least for his main accounts) full cost minus 20%.

Even though the external sales reps are not directly involved in the pricing decision, they play an important role in the interaction with the customer. The external sales rep might for example communicate back a target from the customer or have knowledge about competitor prices. One of the most important tasks of the external sales rep is to communicate the value of the product to the customer; this directly affects the customer's willingness-to-pay, and thus the price. Another role of the external sales rep is to read the reaction of the customer when he sees the product and the price, which can play an important role when deciding how to counter subsequent demands or requests.

Figure 6.7 show the different organizational levels involved in the pricing decision at Delta.

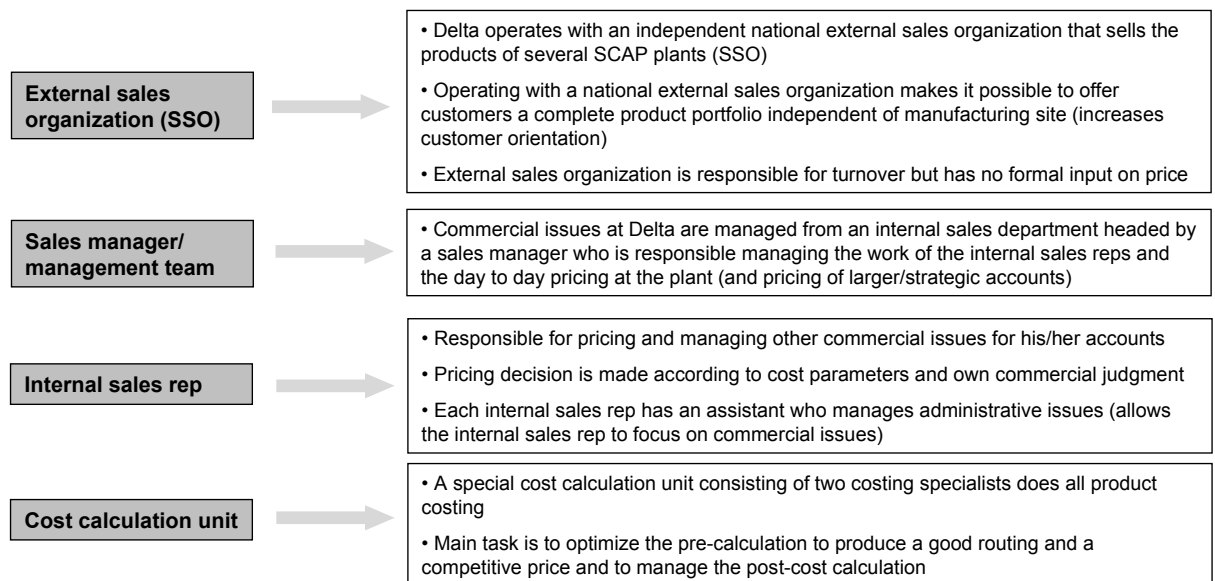


Figure 6.7 Organizational levels involved in sales, costing and pricing at Delta.

#### 6.5.4 Pricing based on inflated costs and assessment of market factors

In our case here in Delta, there is a certain [cost] limit which it is not allowed to go below. Nevertheless, many prices are driven by the market, so I would say that market accounts for roughly 60% of the [pricing] decision. We have a special situation here in Delta because our products are not 100% comparable so I would say that with my special products, which are pre-print, displays and the “quick and easy top”, I would say that 80% of the decision is cost-oriented and only a little is market oriented. With the rest of the products [which are comparable and exposed to competitive pressures] I would say that 80% is market and 20% is costs. It depends on the products. (Sales manager, Delta)

The customer’s willingness-to-pay is assessed according to a customer-by-customer-judgment. This means that there is no uniform pricing policy that in detail regulates individual prices. The only regulation that applies to the pricing situation is the lower price limit that the external sales reps are allowed to go to without permission from their manager. One important characteristic of this method is that the internal sales reps are not told the “real break-even point” for the individual order. They know the calculated full cost, but they also know that there are added margins in this measure, which sometimes makes it basically im-



possible to sell at the calculated full cost (for conventional products). This means that the internal sales reps are to some extent kept in the dark about the real limit where Delta starts losing money on the order. The hidden added margins in the calculated price, and not letting the internal sales reps know the exact break-even point, are maintained by the general manager and the sales manager to be important tools for inducing the internal sales to always try to get as high a price as possible.

The consistency and credibility of Delta's pricing policy is according to the sales manager an important success factor (which to some extent contrasts with the "customer by customer" approach to pricing described above). According to the sales manager, Delta mainly works with large customers that expect stability and consistent prices. Thus, consistency is a key factor to gain the long term trust of the customer so that he does not collect competitive offers for new products. A pricing policy that relies too much on the negotiation process to set the price would, according to the sales manager, damage Delta's credibility. Because relying too much on the individual negotiation is perceived as a dangerous approach that is not suited for the type of customers Delta wants to build a relationship with, much effort is put into gathering information about the product and customer at the inquiry phase. This allows Delta to more "objectively" establish the willingness-to-pay of the customer based on product characteristics and potential competition for that order. Having done this thoroughly, according to the sales manager, allows Delta to set an initial price which does not need to be further negotiated. Delta's pricing mechanism is illustrated in Figure 6.8.

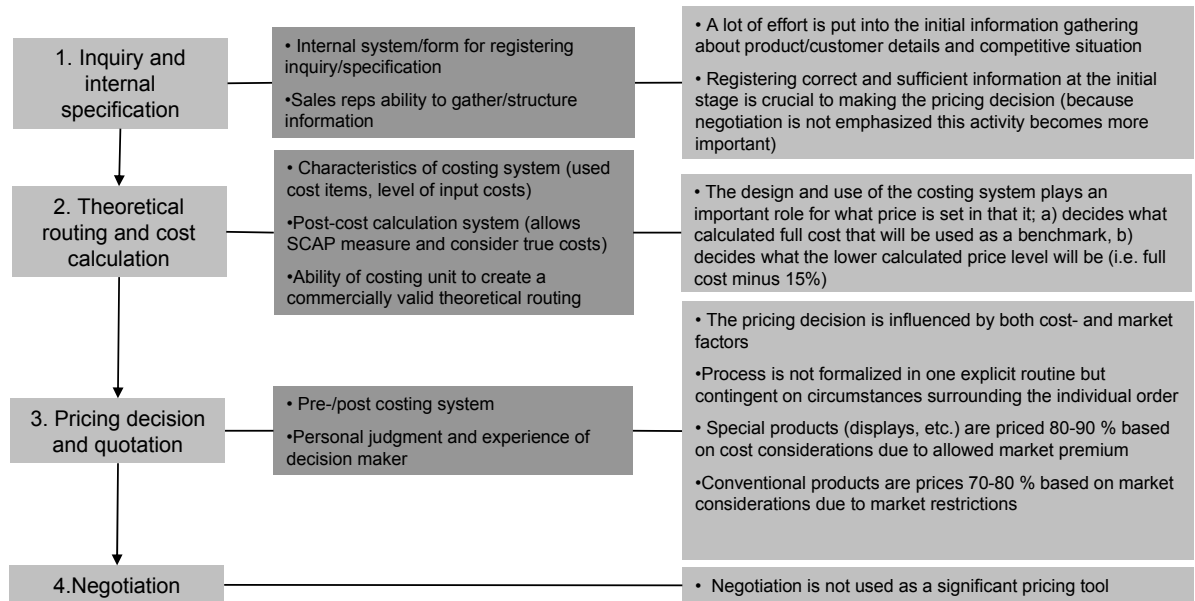


Figure 6.8 Pricing at Delta.

The pricing at Delta is influenced by both cost and market factors. The process is not formalized in one explicit routine, but contingent on idiosyncratic circumstances surrounding the individual order or customer. According to the sales manager, pricing is very different for special and conventional products. What is termed special products is to a large extent priced according to cost factors while conventional or comparable products are priced according to market factors. This implies that being able to base a price on costs, as for the special and non-comparable products, simply means that the customer tends to accept the higher price generated by the costing system. For the conventional products, which according to the sales manager are priced based on market factors, customers do not accept the higher prices generated by the costing system because there are easily available alternatives on the market.

As there are no formal routines or guidelines for establishing the customer's willingness-to-pay other than the full cost price given by the calculation system, the judgment and experience of the individual internal sales rep are crucial when setting price for products that are not readily comparable to other products. A sales rep describes the factors that he takes into account as related to calculated costs, old prices, information from external sales reps, experience from other projects, competitor prices, and feedback from the customer. Another internal sales rep describes pricing for a new project as; doing the cost calcula-

tion (which is a quite routine activity), establishing what separates the offer from competitor offers (differentiation) and making a comparison with historical prices or similar orders. Further, the internal sales rep emphasizes that the often time-consuming, or main task, is not doing the cost calculation, but finding out what price the customer is actually willing to pay. Instead of focusing on the calculation, the internal sales rep emphasizes the importance of knowing and being able to value the so called “extras” on the product (the differentiating attributes of the product).

### 6.5.5 The role of separate pre- and post cost calculation systems

It is essential for us not to show the exact cost in our [pre-cost] calculation. It is important to have some hidden things in it. If the [internal] sales reps are setting the prices and they do not know exactly where the limit is, they are always fighting for a better price. They are thinking that a decrease by 20% is terrible. If he knows that he has 10% room in his price, the danger is that he will give another 5%. This is really the case. To have some hidden things in it to make people fight for their prices. On the other hand, we have the market. Nevertheless, if people are convinced about the performance and the service, they can persuade the customer much easier. (Sales manager, Delta)

The costing system at Delta consists of two separate systems: pre-cost calculation and post-cost calculation. The two systems are used for different purposes. The pre-cost calculation system is mainly used as a tool for pricing incoming orders while the post-cost calculation system is used for *ex post* profitability analysis. The two separate functions are manifested in how the two systems are managed. The aspiration behind the pre-cost calculation system is to produce a calculation with high costs, something that is supposed to lead to higher prices. On the other hand, the post-cost calculation, used for evaluating the true profitability of orders and customer, is set up to show as accurate costs as possible.

The pre-cost calculation at Delta is mainly set at producing a full cost measure, which is shown on the calculation sheet that the internal sales use to set price. In addition, the system also produces a variable cost measure, which is only shown on a special calculation. All calculations at Delta are managed by the calculation department (consisting of two persons in the internal sales department) and the sales manager. The

special or variable cost calculation can only be produced by the calculation department (with the permission of the sales manager) and is not accessible to the internal sales without special permission.

Most normal orders are priced based on the full cost calculation and thus according to calculated full cost plus or minus a certain percentage depending on the competitive situation. However, in the case of strategic accounts or very large customers where competition is tough, Delta is sometimes forced to work with the variable cost calculation. This contains several different contribution margins. According to the internal sales manager, contribution margin 2 (which he estimates is 20 % below full cost) is usually the limit below which the internal sales reps cannot go without gaining permission.

According to the general manager and the sales manager, the validity and reliability of the costing system used in Delta is well above SCAP average. This is linked to the fact that more effort is put into the process of calculating costs (two people in the cost-calculation department are working full-time with the costing system) and due to the post-cost calculation, which allows Delta to continuously evaluate costs generated by the pre-cost calculation system based on real costs. The post-cost calculation system separates Delta from most other SCAP plants that usually only work with a pre-cost calculation system. The point of being able to calculate the real costs of producing an order is, according to the sales manager, to gain greater transparency, making it possible to determine which product groups or customers that are actually profitable. Doing post-cost calculations is normally something that is considered difficult within the corrugated industry. This difficulty arises from the fact that orders are often highly customized and usually run beside one another on the corrugator. One reason why post-cost calculations are not perceived as difficult at Delta, as opposed to other plants, is that Delta produces a majority of its packaging from pre-print, which means that orders cannot be combined on the corrugator.

Each month a profitability report is compiled based on the post-cost calculation. The report shows the profitability, in absolute numbers and as a percentage, for each product along with a summary customer by customer. The report is sent to the sales rep so that they can evaluate the profitability of the account they are handling. It also functions as an important analysis and steering tool enabling individual sales reps and

the management team of Delta to continuously evaluate the prices of particular products and customers. In addition to being a tool for price analysis, the post-cost calculation and the monthly profitability report enables a more clear-cut use of the pre-calculation as a pure pricing tool. In a situation where the plant is lacking an instrument for calculating the profitability of orders based on real costs, they are forced to use the pre-calculation for this purpose. However, because the pre-calculation is also used as a pricing instrument it is badly suited for this purpose. Pre-calculations tend to be inflated or contain added margins for the purpose of securing a high price. While this could be beneficial for setting prices, it does not provide a good instrument for profitability analysis. Hence, splitting pre and post-cost calculations into two separate systems enables an optimal use of each individual system.

Delta (as most SCAP plants) lack a clear system or routine for establishing which price to quote for a specific product if the price is above the lower price limit employed by the plant. In the case of simple or comparable products this is not an issue, as there is an established market price or an easily available benchmark. However, for more differentiated or non-comparable products, for which there are no direct comparisons available on the market, the price needs to be established internally, based on the individual experience or judgment of the internal sales rep pricing the order. Hence, the secretly inflated cost figures and added margins in the costing system are used as a substitute steering tool to reduce the risk that the price will be set too low and to guarantee that the sales reps will fight hard to keep the prices up in negotiations. As mentioned above, the inflated cost figures are a secret within the management team, and although the internal sales reps do not exactly know what the true cost is, they have a rough knowledge of the actual cost of the orders they are pricing. The logic of this practice is explained by the general and sales manager as keeping the person doing the pricing insecure or uncertain as to where the actual break-even point is.

### 6.5.6 Information systems for forecasting demand and competitive activity

The separation is based on different customer industries. We have a very strong focus on food, especially on chocolate. On the one hand it is a very good thing to have a strong competence in one industry; on

the other hand it is a disadvantage for us because all those customers need packaging at a certain time. That is the reason why we are overbooked in October, so we are looking to acquire other customers in non-food segments or other types of food companies to have a stable situation throughout the year. If we can increase sales towards these companies it will have a positive effect. This is part of my pricing. It would not be good for me to have another Kraft food here, but it would make a lot of sense to have someone who needs packaging in April or May. I am much more flexible in price for acquiring such a customer. My pricing philosophy is in that way different towards different customer segments. (Sales manager, Delta)

Delta uses a segmentation system based on customer industry, which was developed before they became a part of SCAP. The development and analysis of different customer segments are conducted by the external sales organization (SSO). This information is then communicated to Delta. The segmentation system is used for many different purposes. At present, Delta is very much focused on the local food industry, especially confectionary and chocolate. The focus on the confectionary industry creates a strong seasonal demand, which results in the plant being overbooked in the fall (before Christmas). Hence, one important use of the segmentation system is to direct the sales work towards attracting customers from different industries in order to achieve a more even demand throughout the year. In addition, customer segments are also an important means to direct sales efforts to industries which are profitable or growing. Using customer segments as a means for evening out annual demand and for focusing on growing or profitable industries are both examples of how a segmentation system influences individual prices.

Competitor information is seen as a key instrument in the pricing process. According to the sales manager, not having this information when making the pricing decision often results in the price being set too low. In Delta, this information is tied to the individual experience and judgment of the person pricing the order, rather than incorporated into a formal policy or system. However, one important aid in assessing the competitive situation when making an offer is the local business information system (BIS). This includes information about customers (purchase history, products, competitors, etc.) from the form that is filled out every time a new inquiry is created. The BIS-system is an old one implemented before Delta became a part of a SCAP. However, as it is

not directly tied to the pricing decision it has limited impact on the pricing at the plant.

An important reason why so much focus is put on the individual's own knowledge about competitors, instead of on a more formally defined information system is, according to the sales manager, related to the difficulties involved in accessing relevant and timely information in the particular pricing situation. This implies that the problem might not be that information about competitors and customers is not available, but rather whether the systems are designed so that the relevant information reaches the right person at the right time.

### 6.5.7 Pricing capability at Delta

The local part of the packaging industry serviced by Delta was characterized by a strong demand for high-end consumer packaging, pre-print, and in-store displays. This demand was driven by large food and confectionary companies, for whom packaging was an important part of their products' in-store appearance, thus requiring packaging partners highly accomplished in print and design. Delta's strategic position was based on a long term close relationship with large brand leaders in the local food and confectionary industries and the specific requirements of these segments. Over time, the close relationship with these industries created an opportunity for Delta to differentiate its products portfolio based on unique product characteristics related to print and design. The fact that a large share of Delta's products was relatively unique and not exposed to high levels of competitive pressure led to a strategic focus on preserving this position relative to the targeted customer segments, rather than engaging in more short-term actions aimed at cost reductions and capacity utilization. The overall strategic position, briefly recapitulated above, partly explains the type of pricing policy found at Delta.

Delta's pricing policy can be labeled *Stability pricing*. The objective and outcome of this policy were high prices that were perceived as stable, thus inducing in the customer a sense of credibility. This outcome was achieved by setting prices in a conservative manner using fixed mark-ups on costs. The exact size of individual mark-ups was determined by an assessment of what could be expected to pass for a fair, and thus long-term, set-up of prices for a certain customer or product.

Key characteristics of the pricing policy at Delta are displayed in Table 6.14.

Table 6.14 Key characteristics of pricing policy at Delta.

Characteristic	Observation at Delta
<b>Label</b>	<i>Stability pricing</i>
<b>Key dimensions</b>	
Price discrimination	Prices are based on a notion of long term stability and market credibility
Price elasticity leverage	Prices are partly based on market factors (prices for differentiated products are based on a mark-up on full costs while less differentiated products are prices based on a market assessment)
Operating leverage	Prices are partly based on full costs (prices for differentiated products are based on a mark-up on full costs while less differentiated products are prices based on a market assessment)
<b>Reported benefits</b>	High stable prices and market credibility

The pricing process at Delta was primarily characterized by a strong focus on activities related to the gathering and systemization of technical and commercial information concerning incoming inquiries and the theoretical routing and subsequent costing of the inquiry. Hence, stable prices and credibility towards the customer were achieved through exerting significant resources in the initial phase of the pricing process in order to arrive at a long term valid price. This included gathering extensive market and technical information about the inquiry, creating an optimal theoretical routing of the potential order, and setting and running the cost calculation. In this process, information from the post-cost calculation system about historical “real” costs, and the detail of information provided by the inquiry form provided additional precision in judging the long term viability of a particular price. Key pricing activities are outlined in Table 6.15.



Table 6.15 Pricing activities at Delta.

Pricing activities	Observation at Delta
Evaluation and planning	<b>Key activity</b> Regular (monthly) customer profitability assessment based on post-calculated “real costs”
Customer assessment	<b>Key activity</b> Significant efforts exerted in the initial information gathering and inquiry definition phase to generate long term valid price
Preliminary pricing decision	<b>Key activity</b> Price is set based on fixed cost-based mark-ups on different product groups
Negotiation	(not a key activity)

The key pricing activities summarized above are enabled by a particular set of capability elements that have been introduced throughout the case. These capability elements are listed in Table 6.16.

Table 6.16 Type of pricing capability elements observed at Delta.

Type of capability elements	Observation at Delta
1. IT-based systems	Plant pre-cost calculation system Plant post-cost calculation system Internal system/form for registering inquiry specification
2. Price parameters	Full cost (plus/minus X%)
3. Commercial organization	Plant-level organization with internal sales department responsible for pricing and separate national external sales organization
4. Pricing authority	Pricing authority held by internal sales reps
5. Incentive controlling arrangements	Secretly added margins in costing system
6. Commercial experience	Gathering/structuring relevant market-and cost information, and commercially judging long-term validity of prices

The pricing capability at Delta was, as indicated by the type of pricing activities performed, centered on the initial phases of the pricing proc-

ess related to creating a detailed specification, a technically and commercially valid theoretical routing, and the costing procedures based on the theoretical routing. The key elements that enabled these activities are stated in Table 6.16. The most fundamental form of elements identified in the case were the sophisticated pre- and post-cost calculation systems and the internal system/form for registering inquiries (BIS). These provided Delta with an important point of reference and source of information crucial for the particular level of precision needed in order to, fairly early on in the process, arrive at a price that was valid both in terms of profitability and long-term market acceptance. Hence, the relatively high level of technical sophistication of costing and specification systems reduced the arbitrariness of the information with which the cost-base and mark-up were arrived at. These sharpened the precision of pricing decisions without extensive reliance on the personal discretion of the decision-maker or on the negotiation process.

Other elements greatly emphasized in the case were related to the incentive controlling arrangements, such as the secretly added margins in the pre-cost calculation system, the organization, such as delegated authority in the internal sales department, and the set-up with a separate external sales organization (SSO). In general, these factors were important tools for controlling the actions of individual employees where the set-up and parameters generated by the systems did not provide sufficient control, for example, in securing that individual internal sales reps did not give away mark-downs that were too large, or reduce prices in negotiations. Hence, the incentive controlling arrangements and the organization provided Delta with the means to achieve flexibility within boundaries. However, even though a higher level of control was achieved, several of the organizational arrangements also seem to have had a somewhat distorting effect on the information generated by systems such as the pre-costing system. Put in another way, the fact that Delta exerted extensive resources into fine-tuning its systems for generating precise pre-calculated cost information for the purpose of pricing presents itself as somewhat paradoxical given that they also willingly distorted these figures by adding an extra secret margin before sharing it with the people who made, or were heavily involved in, pricing decisions. However, based on the intentions expressed by the general and sales managers this phenomenon could be understood as a way of balancing or managing the tradeoff between accuracy of the information

and the need to control the incentives of the internal sales reps. By having access to precise and correct cost information, but at the same time releasing the information in an inflated form, management was able to remain in control, in terms of regular check-ups and having the authority to substantially lower prices in individual cases, while providing additional incentives for the sales reps to quote higher prices.

Personal experience and skill also played an important role in Delta's pricing capability. Because of the general lack of systems for gathering and analyzing market information, market assessment was, to a large extent enabled by relying on the individual sales rep's own discretion. In a similar way, decisions regarding the size of mark-ups and mark-downs were contingent on the commercial experience of the individual sales rep. In activities related to market assessment or judging what mark-up to apply, the case of Delta makes apparent how personal discretion or estimates by the external and internal sales reps were used as a form of substitute for technical systems (or that technical systems might be used as a substitute for personal experience and skill). However, the case of Delta also showed that personal discretion played an important role in heavily systematized areas. One such area was the theoretical routing of new inquires conducted by the costing unit. Here respondents emphasized the importance of personal experience and skill, in addition to the system, to generate a commercially and technically valid solution to the customer's packaging problem.

The case presents several indications of the dynamic process from which Delta's pricing capability emerged. A fundamental external event was the change of the retail scene that occurred in the sixties where the traditional small stores were replaced by large supermarkets. In the confectionary and food industries, this changed the meaning of consumer packaging from being a mere means of transporting and keeping the product safe to becoming a fundamental means of marketing the product towards consumers. Thus, the in-store appearance of packaging in terms of the design and printing became increasingly important. Management at Delta picked up early on the opportunities that this change offered to packaging companies by investing in design and pre-print capability. Hence, central to the process by which Delta's pricing capability emerged were the early established ties to the local food and confectionary segments and the development of relatively unique product

characteristics around the design and print of consumer packaging. This resulted in a differentiated and non-comparable product portfolio for which premium prices could be earned, thus reducing the importance of production efficiency, low costs, and the associated utilization rate of machines. Hence, the focus of Delta's pricing on long-term stability of (premium) prices, over price discrimination and the adjustment of prices to temporary volume fluctuations, can be understood as a natural consequence of the process from which Delta's product differentiated strategic position emerged.

## 6.6 Epsilon

Epsilon is a single plant organization operating out of new production facilities built and taken into use in 2001-2002.

### 6.6.1 Introduction to pricing related activities at Epsilon

The operational pricing process at Epsilon can be described according to three activities.

*1. Customer assessment* - The regional sales force identifies sales opportunities and contacts potential customers. The sales force is also responsible for gathering information about the technical solution required by the customer, specific circumstances and market factors affecting the order. When a contact with a customer has been established the sales rep specifies the type of product needed and the service that is required. This is fundamentally a process of optimizing the product characteristics, logistics and services to fit the customer's need. The order specification is primarily managed by the local sales rep, but there are also expert resources available at a central level for special products. During this process, the sales rep works in close interaction with the design and calculation departments at the plant in order to create a solution that is both technically and commercially viable, i.e. not too expensive to produce, but still meeting customer demands. Inquiries are normally received by the sales support department (internal sales) who then transfer the inquiry to the calculator via the sales IT-system, email, etc.

*2. Preliminary pricing decision* - When the terms have been specified (i.e. inquiry), the calculator in the plant runs the pricing model accord-

ing to technical parameters to produce a contribution margin index (CMI) that is used by the sales rep to price the order (CMI 100 equals calculated full cost including profit and functions as a “starting price” in negotiations). The pricing model that is used to produce the CMI is based on a full cost calculation of a non-existing “model plant”, generating standard cost with strategically determined rates of returns built into the model. Hence, the pricing policy reflected in the pricing model is set centrally based on the order’s relative resource consumption and the desired rate of return.

*3. Negotiation* - Once a preliminary price has been reached through the calculated CMI, the sales rep negotiates with the customer and sets a price, according to his own judgment, down to a lower price limit defined in terms of a certain CMI level. According to a sales rep, prices can be significantly reduced if the customer persists in the negotiation, but the result of such customer behavior might also be that Epsilon drops the customer (estimated by sales rep to happen in over 50% of all new customers). In the negotiation of larger deals, higher management levels are also involved (such as sales manager, general manager or the national sales and marketing director).

The final pricing decision is executed customer by customer based on a commercial assessment made by the sales rep. According to a sales rep, because of the increasing competitive pressures in the industry, actual prices tend to end up in the region of the sales rep’s minimum CMI limit. However, actual prices, in terms of CMI, also vary across different types of customers.

### 6.6.2 Balancing price and volume

The way cost allocations are handled is very important for pricing. We handle a large proportion of costs as fixed rather than as variable. [...] There are large administrative costs involved in handling small orders and customers. Construction, development, and sales costs for a small order are proportionately huge compared to a large order. [...] Plants that are operating with a lot of small customers and orders are doing badly, and then people draw the conclusion that having small customers is bad, so instead they go after the large customers. Our line of reasoning is precisely the opposite; we want as many small customers as possible. I would much rather have 100 small customers than one large.

That is where we can make money, presupposing that we charge enough. (Sales and marketing director, Epsilon)

According to the general manager, Epsilon has traditionally been focused on small and mid-sized customers in industrial segments. However, this strategy has become more and more difficult to uphold as manufacturing companies move abroad, thus increasing the proportion of FMCG and larger companies that are served by Epsilon. Hence, the strategy of Epsilon has had to change to also include customer that traditionally give smaller margins.

The main suppliers in the local corrugated packaging industry are all similar with regard to their manufacturing capabilities. Hence, according to the general manager, Epsilon currently tries to differentiate itself from competition on the basis of the width of the product portfolio, service, and being able to deliver a total packaging solution, rather than on the basis of unique product characteristics.

Epsilon's pricing policy is described by respondents as being based on a balancing act between price and volume. On the one hand, Epsilon does not compete on price alone, but on the other hand, it does not aim to be the most expensive packaging supplier in the market. In many ways, both business strategy and pricing policy are directed towards maintaining volume and keeping prices intact as competition in the local industry continuously increases. This somewhat indecisive strategy and pricing policy can be viewed as a result of a conflict between what has been traditionally been viewed as acceptable prices and sales volume. The conflict seems to have arisen as a result of a market that has been shrinking for several years in a row, combined with increased import from low wage countries, and a generally more competitive environment.

The pricing policy of Epsilon is characterized by a national pricing model that, since a managerial initiative in the early 1990s, is used by all business units in the local market. The pricing model is built on a fictive model plant from which the system generates standard costs. Input parameters used in the model (representing the national pricing policy for the coming year) is decided in an annual national management team meeting. Overall pricing policy, standard cost rates, and margins, decided at the meeting are then communicated through the

organization in terms of a contribution margin index (CMI) generated by the model. An order CMI of 100 equals the calculated full cost including the decided profit margin.

Following the logic presented above, the implementation of pricing policy can be described as involving four different steps or levels: (1) setting standard costs rates and margin (CMI-level) in the national pricing model, (2) setting national CMI objectives, (3) setting CMI objectives at individual business units, and (4) executing individual customer negotiations.

The idea behind the pricing policy accounted for above is to allow for strategic control at the national level (national pricing model), while leaving room for local adoption to market and customer's requirements at each business unit (each unit sets and negotiates individual prices). Hence, the implementation and development of pricing policy involves two levels: the structure and input rates used in the model, and the choice of CMI for the individual order. As mentioned above, structure and rates are determined in the national management team meeting once a year and do not change during the year (with the exception of fluctuating paper costs). Hence, it is in the choice of CMI that prices are adapted to market factors or competitive pressure surrounding the individual order. CMI targets are, according to the general manager, determined at the annual management team meeting for the whole market, and then adapted to local requirements at each individual plant. These targets are then built into the sales budget for each unit and, in turn, broken down to the level of individual orders or customers.

The annual management team meeting where the national pricing model is discussed, plays an important role in the development of the pricing policy for the involved units. According to the sales and marketing director, the main issues dealt with at the meeting are general strategic issues, details of the pricing model, such as which rates to use (for both costs and returns), and impact analysis of suggested rates on current customers. General issues such as trade-offs between price and volume as well as changes in overall pricing policy are also discussed at the meeting. All changes in the pricing model that are agreed upon during the meeting are assessed in terms of average CMI, which constitutes the key pricing parameter in the model. Although the management team

meeting is a national affair in the sense that it sets the policy and objectives for the whole market, the individual plants are also represented at the meeting.

### 6.6.3 A pricing organization for national control and local flexibility

It is very important that the sales reps can influence price. They are the ones that have the knowledge and the feeling, when they are at the customer, to estimate the limit for getting the order. They are able to listen to the buyer and judge when he is lying and when he is pushing a bit too hard, and they always do that, so this has to be a judgment made by the sales rep. It is impossible to balance these things if you don't have confidence in that the sales rep will be able to evaluate the situation. (General manager, Epsilon)

Prices for orders produced and sold by Epsilon are affected by decisions on several organizational levels within the national organization. The basic idea behind the organization is to allow for a strategic control and coordination of prices at the national level, while at the same time allowing for flexibility at the business unit level. Hence, pricing authority in the focal market involves two basic levels: the national management team, and the individual business units (plants).

The national management team sets pricing policy and customer prioritization for the whole market in an annual pricing model meeting. The same forum is also used for refining and updating the pricing model. In addition, the national organization participates in pricing decisions involving orders of national strategic relevance.

The management team at each individual plant has the overall responsibility for pricing individual orders according to the rates and parameters included in the national pricing model. The plant management team also directly participates in individual pricing decisions for large or strategically important customers (often priced below the sales rep's lower price limit).

At the plant level, the calculation department does the price calculation according to the national pricing model in order to deliver a CMI for the individual order, while the sales reps are responsible for negotiating with the customers and pricing the orders they are handling. The sales



reps do not have direct access to the pricing model, but negotiate and price orders based on CMI information issued by the calculation department. Hence, the CMI informs the sales rep of the relative profitability of the order compared to the national pricing model. As indicated above, while not having direct access to the pricing model, it is the sales reps who set prices and are commercially responsible for the accounts they are handling. Hence, the relationship between the calculator and the sales reps is that of close teamwork where the calculator is responsible for generating the calculation and helping the sales rep identify alternative ways of producing the order (i.e. routings), for example, in terms of order size, machines, paper qualities, etc. The work of the calculator borders on the work of the production planning and design departments, with which the calculator interacts closely.

The sales force is organized by plant in local sales departments (headed by a sales manager). According to the general manager, individual sales reps are authorized to set prices according to their own discretion down to a certain CMI level. However, pricing decisions for new customers are still normally discussed with the sales manager. The pricing authority of the sales reps is described by the general manager as being based on a high degree of freedom, but with an ongoing discussion between sales reps and management. It is seen as very important that the sales reps have this freedom in deciding on the price. As most of the interaction with customers takes place through these people, they have the information relevant for the pricing decision. According to the sales manager, there are no exact price limits for how low a sales rep can go in negotiations. Instead, it is the individual situation that determines what is to be considered an adequate price. Despite this, there are some general “rules of practice” in place where sales reps approach the sales manager or general manager when getting close to a certain CMI-level.<sup>49</sup>

The sales reps have a significant influence over prices at the Epsilon plant. In order to control their motivation, management has a bonus system in place. Bonus is awarded sales reps on a yearly basis and is, ac-

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<sup>49</sup>As mentioned before, the key measure used for pricing at Epsilon is CMI, which is a contribution index where CMI 100 is used as a “starting point” that should indicate a price that gives the desired rate of return built into the model. However, this measure contains a rather large profit margin making prices far below this point profitable.

According to a sales rep, based on two criteria; achieved volume targets, and price. According to a sales rep, the bonus system is not an important part of the sales reps motivation in the sense that it drives sales reps to charge higher prices. This picture is also reinforced by the national sales and marketing director who describes the system as rather “dumb” and without effect, creating more internal conflicts than generating extra revenues.

Figure 6.9 outlines the pricing organization affecting Epsilon’s pricing.

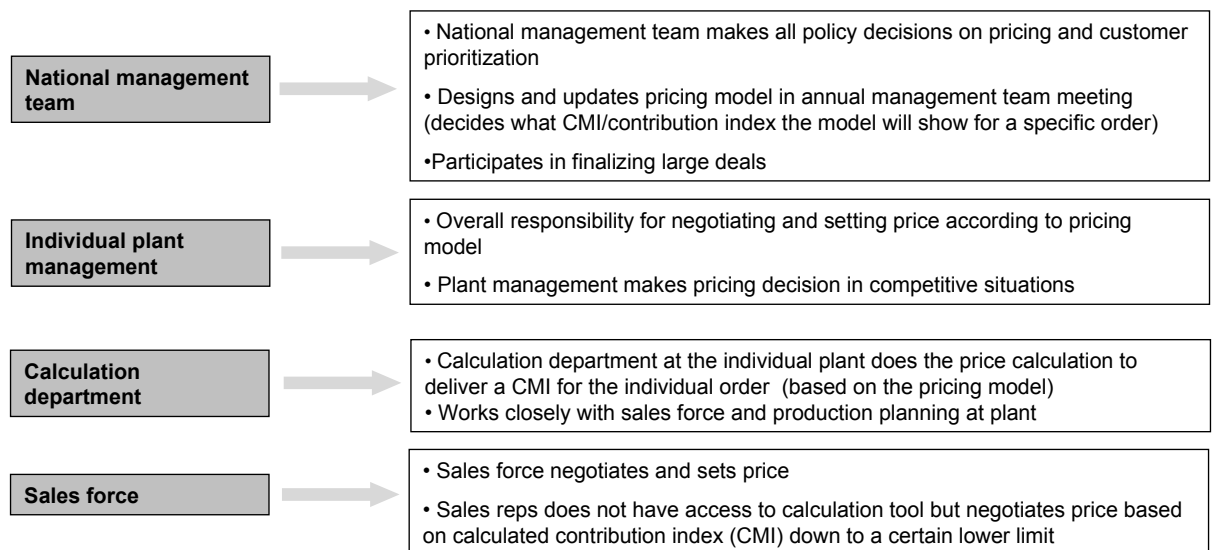


Figure 6.9 Pricing organization at Epsilon.

#### 6.6.4 Pricing based on a national model built on standard costs and strategic objectives

We do the calculation based on a pricing model taking in long-term considerations where we acknowledge the sales rep’s impossible position that arises because he does not know what price he should charge. Here it is important that he has good guidelines. We have tried to think of as much as possible. We try to do an activity-based cost calculation to the extent that it is relevant and necessary, which means that we are able to see profitability on an order-level. Our line of reasoning is that profitability can only be built like the bricks of a house, from the individual order to total profitability. That is the reason why we do not carry out a lot of analysis regarding which segments to work with, but rather, it is about the sales reps having learned from experience which factors that cause profitability. Then, what you basically do is to try and capture these orders and customers. [...] The sales rep is supposed to keep track of only one thing and that is to charge the normal contri-

bution margin. Then we calculate an index. If you are able to charge a price where we can deduct production costs and get a value which is the same as the normal contribution margin, then you have 100 [CMI]. If you lower the price so that you only have 90% left of the contribution margin then you have 90 CMI. Presupposing that we have done our ABC calculation in a correct way, the sales reps only have to think about one thing and that is to go after large customers with a high index. (Sales and marketing director, Epsilon)

The pricing and customer prioritization system rests on the notion of central control and local execution. This means that the national organization controls and updates the pricing model and the local plants execute it. The model is in this sense the region's tool for steering the sales organization. The pricing model rests on the principle of standard costs (i.e. costs calculated for a fictive "model plant") and that orders should be priced according to their relative resource consumption according to activity-based principles. Hence, the main principle underlying the pricing model is that of full cost-plus profit pricing. Market oriented factors are taken into consideration via the profitability targets included in the model and how the model is used by the individual plants (i.e. sales reps) in customer negotiations.

Deploying a pricing model based on activity-based principles turns allocation and treatment of fixed costs into a central issue for how different orders are priced. According to the sales and marketing director, the national pricing model aims at treating costs as fixed (as opposed to variable) in order to allocate a proportionally larger share of costs to smaller orders. According to studies, such a policy follows the actual cost curve more accurately, and allows for higher prices on orders with less competitive pressure.

The key parameter behind the pricing mechanism at the Epsilon plant is the CMI (contribution margin index). Hence, in accordance with the model, communication of pricing policy is managed through this parameter as the sole measure used to guide and evaluate a sales rep's pricing decisions. The sales and marketing director explains the pricing mechanism in place according as three levels:

- *Strategy* refers to logic or way of thinking that follows from the set-up of the national pricing model.

- *Structure and Process* is primarily represented by the parameters included in the model and rates decided in the yearly management team meeting.
- *Systems* refer to the IT-application through which the organization is confronted with the pricing model.

As indicated by the content of the pricing model, a lot of factors determining the actual price that is charged lie outside the formal pricing mechanism in terms of strategy, structure, process, and systems. A key issue is what the customers are actually willing to pay in a specific situation. The sales manager describes this as contingent on the individual situation and as a combination of several factors.

- The customer's product and its value compared to the packaging
- The customer's competitive situation
- Competition for the project
- Whether Epsilon is already established as a supplier
- The level of value that Epsilon can offer the customer
- The logistic solution that Epsilon can provide

The sales reps are responsible for taking into account all the factors mentioned above when setting individual prices. Hence, much of the ambiguity underlying individual prices rests on the outcome of the interaction between the sales rep and the customer. According to the sales manager, the sales process of packaging solutions differs from ordinary pre-defined "product sale" in that there are no direct standards on which a fixed price metric could be based. A sales rep offers a similar account of the mechanisms governing the pricing process at Epsilon. Accordingly, individual pricing decisions build on an assessment of each customer and his individual preferences.

The overall mechanism by which price is decided at Epsilon is shown in Figure 6.10.

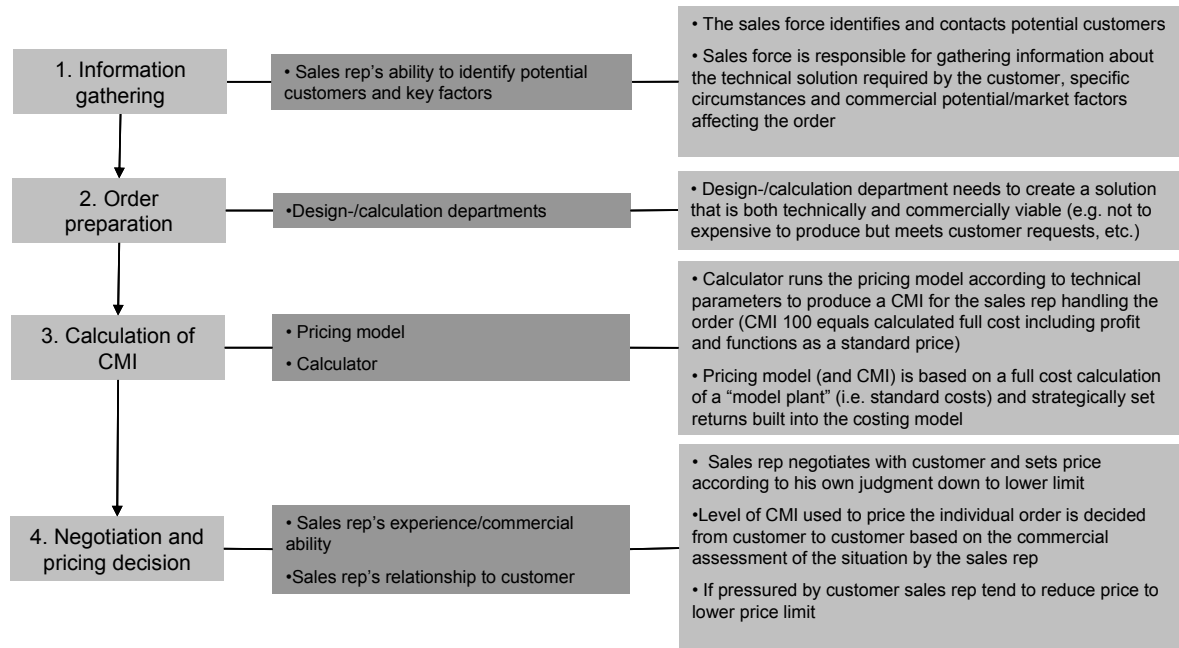


Figure 6.10 Pricing at Epsilon.

### 6.6.5 Order profitability analysis based on standard costs

In order to develop the model, more competence and larger units are needed. If you spread this across local units, there will not be enough competence. You also run the risk of creating competitive situations between units. Our principle is that price should be the same no matter where it is made. This means that we keep one single approach towards the market. Then, there is also a point in distancing the pricing model from the pricing situation, that is, if I am in a pricing situation, I am handicapped if I know the pricing model too well because then I know, so to speak, where you can find the margins, which creates a risk that I will sell the product cheaper than a sales rep that only knows that he should stick to the model. This also speaks in favor of separating the pricing model from the individual unit. The units are to a large extent driven by the current situation in the plant, it is a production unit and when they are under-booked this is perceived as a huge problem. Then you tend to sell cheaper and think in terms of margins. (Sales and marketing director, Epsilon)

As previously stated, Epsilon operates solely with a national pricing and costing model that is based on a "model plant" and the standard costs derived from this fictive plant, together with centrally decided rates of returns. The model is built on a full cost or cost-plus profit principle incorporating a significant margin. This means that when an order is priced at CMI 100, the fictive "model plant" would recover all direct

costs and the order's allocated share of indirect costs plus a margin. Hence, CMI is an index of the order's contribution margin compared to the target margin. According to the sales and marketing director, CMI is the key parameter used to evaluate profitability, primarily on an order level, but also at more aggregate levels of analysis (such as customer, product type, etc.).

The model is revised once a year at the national management team meeting, but according to the sales and marketing director, the changes in the model are often small and mostly related to changes in raw material costs (which are also adjusted according to fluctuations during the year). Hence, the link between the model and real cost is rather obscure, but according to the sales and marketing manager, the confidence in the model held throughout the organization is strong enough to effectively use it as the sole means of evaluating order profitability.

#### 6.6.6 The use of market information to caliber the national pricing model

They [customer price signals] are gathered from the sales reps and sales managers. Here we do not systemize, but, in some way, we try to feel or judge the situation. That is what an experienced person is supposed to be good for, to be able to feel what is right without having to sit down and calculate; how many times did we not get the order, the hit-rate... (Sales and marketing director, Epsilon)

According to the sales manager, Epsilon uses two main systems for tracking customer and competitor information.

- Sales administrative IT-system
- Customer relationship management system (CRM-system)

Customer data such as segment classification, type of products, historical prices, is managed in the sales administrative system at the plant. The system uses two different segmentation variables to classify customers; end-use segment and customer service type. End-use segment refers to the typical company-wide classification according to customer industry (i.e. FMCG, Industrial, Electronics, etc.). The customer service type classification is, according to the general manager, the most important information that can be derived from the system in that it specifies the level and type of sales activity that should be directed to-

wards the customer. The four different types of classifications used are: (1) *suborder customer* (require little sales and development activity, small deliveries), (2) *relationship customers* (established relationship and customers require more sales activity), (3) *development customers* (demands significant development activities), and (4) *price buyers* (buys a standardized product solely on price).

As mentioned above, the customer service type classification in the sales administrative system is actively used as a tool to direct commercial activity. However, neither the end-use nor the customer service type classification is used directly in the pricing process to discriminate prices between different segments.

Competitor information is managed in the CRM-system. The sales reps are responsible for gathering the information stored in the system. Each sales rep has a list of potential accounts “in progress” where the potential competitors are listed. This is, according to the sales manager, the level of information that lies closest to the actual pricing situation as the information can be used by the sales rep when assessing what CMI to charge the customer. According to the sales manager, the information about competitors in the CRM-system is primarily used for strategic analysis on a national level (for example to update or change the national pricing model). Hence, even though competitive information is used to adjust the pricing model on a national level there are no formal procedures for using this information when setting individual prices (other than to the extent that the pricing model influences the levels charged by sales reps).

As the account above shows, both customer and competitor information are actively and systematically managed at the Epsilon plant in the sales administrative and CRM systems. However, due to the decentralized pricing organization and mechanism, i.e. the fact that each sales rep determines individually how to use market information to adjust CMI for the individual order when making a pricing decision, this information has a limited effect on the prices that are actually charged in individual transactions.

### 6.6.7 Pricing capability at Epsilon

The part of the local corrugated packaging industry serviced by Epsilon was characterized by a relatively low level of product differentiation and a variety of different types of customers in terms of size and industry. Although lacking significant product differentiation, price competition in the industry was generally limited by high levels of seller concentration. Epsilon's strategic position was described as missing ties or close relationships to specific niches or market segments, which made it more difficult to develop any significant forms of product differentiation. This resulted in a product portfolio that was characterized as comparable to competitor offers.

Epsilon's pricing policy can be labeled *Model plant pricing*. The objective and outcome of this policy was market wide coherence and high order contribution on smaller orders. This outcome was achieved by setting the price according to activity-based allocations of standard costs (based on a fictive "model plant") with strategically decided margins, and a high level of responsiveness in customer negotiations. Key characteristics of the pricing policy at Epsilon are displayed in Table 6.17.

Table 6.17 Key characteristics of pricing policy at Epsilon.

Characteristic	Observation at Epsilon
<b>Label</b>	<i>Model plant pricing</i>
<b>Key dimensions</b>	
Price discrimination	Prices are based on orders relative resource-consumption (according to the pricing model's ABC order allocations)
Price elasticity leverage	Market factors influences the preliminary pricing decision through strategically set standard costs/margins in the pricing model and the final pricing decision through negotiations
Operating leverage	Prices are based on standard costs generated according to ABC-principles
<b>Reported benefits</b>	High order contribution on smaller orders/customers and market wide price coherence

The pricing process at Epsilon was primarily characterized by a strong focus on activities related to the national management team meeting where the pricing model was discussed, and the individual price negotiations executed by sales reps at plant level. Hence, market-wide coherence of prices and high order contribution on smaller orders were



achieved through relying extensively on, in the first step, market-wide acceptance of the set-up and parameters included in the national pricing model, and in the second step, allowing for the individual plants to adjust or control the use of the model in individual customer negotiations. In this way, the basic informational input to the pricing decision was governed by an account of the market as a whole (but limited to resource consumption and broad market considerations), while the individual plants (or sales reps) were granted control of individual pricing decisions. The key pricing activities are outlined in Table 6.18.

Table 6.18 Pricing activities at Epsilon.

Pricing activities	Observation at Epsilon
Evaluation and planning	<b>Key activity</b> Annual national management team meetings where the parameters and structure of the pricing model are decided
Customer assessment	(not a key activity)
Preliminary pricing decision	<b>Key activity</b> Price is set based on a choice of price-base (level of CMI) which is decided by the external sales rep
Negotiation	<b>Key activity</b> Individual customer's willingness-to-pay assessed through negotiations (high customer responsiveness)

The key pricing activities summarized above are enabled by a particular set of capability elements that have been introduced throughout the case. These capability elements are listed in Table 6.19.

Table 6.19 Type of pricing capability elements observed at Epsilon.

Type of capability elements	Observation at Epsilon
1. IT-based systems	National pricing model (influenced by CRM and sales administrative systems)
2. Price parameters	Contribution margin index (CMI)
3. Commercial organization	Plant-level organization with external and internal sales
4. Pricing authority	Pricing authority held by external sales reps
5. Incentive controlling arrangements	(not a key element)
6. Commercial experience	Selecting a correct CMI based on commercial assessment of customer and negotiation

The pricing capability at Epsilon was, as indicated by the type of pricing activities performed, centered on the yearly management team meeting where the national pricing model was set up and its parameters agreed upon, and the individual customer negotiations. The key elements enabling these activities are stated in Table 6.19. The most fundamental forms of capital identified in the case were the national pricing model, the price parameters, and the commercial experience of the co-workers involved in the pricing process. There were three specific aspects of how the national pricing model was used that stood out as fundamental for how pricing was conducted at the plant. First, the centrally controlled pricing model allowed for strategic control and coordination of pricing parameters, but not of the actual price that was set in individual transactions since individual transaction prices were allowed to deviate from the calculated price following the sales rep's judgment of the situation, and the outcome of customer negotiations. Second, the pricing model used at Epsilon was directed towards differentiating prices based on order's relative resource consumption, which left out important commercial factors that could have been used to differentiate prices on a more formal level (such as in the model). Instead, commercial factors were left up to the personal judgment of the sales rep negotiating and pricing the individual order. Third, the use of an explicit pricing model based on standard cost and strategically decided rates of return, rather than a strict full cost calculation, directed attention and highlighted pricing as an important activity separate from order costing.

The case presented some indications of the dynamic process from which Epsilon's pricing capability emerged. The most fundamental event in this process was the decision made on a national level at the beginning of the 1990s to develop a common pricing model used by all SCAP units in the focal market. Even though much of the pricing practices observed can be attributed to the decision that were made regarding the set-up of the pricing model, a number of observations can be made concerning the attributes of the model. First, the model was built on a notion of relative resource consumption (i.e. costs). Second the model was explicitly designed for pricing smaller orders and customers (for which fixed order-level costs are more important as there are fewer units to absorb them). Both if these attribute indicates that, although the model was developed according to a managerial initiative for which there cannot be found any obvious environmental or temporal deter-

minants, the specific circumstances in the corrugated industry can constitute a way of understanding why the model turned out in the way it did. First, the fact that the model was based on resource-consumption makes it similar to traditional cost-plus profit pricing models commonly observed in the corrugated packaging industry. Hence, the initiative to develop a new form of model followed traditional practices in the industry. Second, the fact that the model was oriented towards pricing smaller orders and customers can be seen as a reflection of Epsilon's overall strategic focus on these types of customer segments. Hence, the particular set-up of the model seemed to be contingent on the strategic situation on the focal market.

## 7. Structure and strategic relevance of pricing capability

The five cases presented in Chapter 6 illustrate the applicability of the theoretical concepts included in the preliminary pricing capability framework. The picture emerging from the data is that of five different pricing policies being deployed through the execution of a particular set of activities where each activity in turn is enabled by particular capability elements. The aim of this chapter is to develop this picture in order to further extend, and potentially reformulate, the content of the preliminary framework. Particular attention will be paid to the following three issues highlighted in the preliminary framework.

- The type of pricing policies observed and the mechanisms by which they affect firm performance.
- The type of activities performed in association with a particular pricing policy.
- The type of capability element enabling the performance of individual activities.

### 7.1 Empirical results

This section presents the main empirical results related to the key concept highlighted in the pricing capability framework: pricing policy, pricing activities, and pricing capability elements. The main emphasis is not on providing a direct comparison between results and the literature review, represented by the preliminary framework (this is the aim of section 7.2), but to extract, summarize, and compare key empirical findings across the five cases.

### 7.1.1 Pricing policy

Five different case-specific pricing policies were identified in the empirical data<sup>50</sup>: (1) Capacity pricing (Alfa), (2) Value-based pricing (Beta), (3) Opportunity pricing (Gamma), (4) Stability pricing (Delta), and (5) Model-plant pricing (Epsilon). Table 7.1 introduces the different pricing policies organized according to two main headings: (1) *Key dimensions* states the three dimensions (price discrimination, price elasticity leverage, and operating leverage) identified as most important for describing the variation between the five pricing policies. (2) *Main benefits* states the sought output or result of the particular pricing policy.

The variation in pricing policy between the five cases can be understood by grouping observations on the three dimensions of price discrimination, price elasticity leverage, and operating leverage.

- *Price discrimination* refers to the extent by which individual prices vary (i.e. the variance in the distribution of prices).
- *Price elasticity leverage* refers to impact of customer and competitor information on price.
- *Operating leverage* refers to the impact of calculated costs on price.

In addition to providing a means for understanding the difference between the five pricing policies, the key dimensions outlined above also explain how pricing policy at the studied units affected performance outcomes. In the case of Alfa's capacity pricing, pricing was primarily a means towards lowering unit costs by maximizing volume on available machine capacity. In the cases of Beta's value-based pricing and Gamma's opportunity pricing, this was primarily a means for discriminating prices based on the individual customer's willingness-to-pay and competitive situation. In the case of Delta's stability pricing, pricing was primarily a means for achieving high stable prices and market

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<sup>50</sup>As discussed in section 6.1.4, the intention behind naming or labeling individual case-specific pricing policies is not to suggest these as theoretical concepts, but to enable a fluent empirical discussion about case-specific pricing policies, and the particular activities and capability elements that were found to enable them in the five studied cases.

credibility by relying on fixed mark-ups on costs and not utilizing individual opportunities to raise prices. And finally, in the case of Epsilon's model-plant pricing, pricing was used as a means for achieving high order contribution on smaller orders/customers by the use of strategically decided standard costs and margins set in the national pricing model.

By abstracting from the individual pricing policies, we find the three dimensions introduced in the preliminary pricing capability framework. These three dimensions correspond to the main economic principle by which the different pricing policies were found to affect performance: operating leverage (Alfa), price discrimination (Beta & Gamma), and price elasticity leverage (Delta & Epsilon). Naturally, profitability was the ultimate aim of all five pricing policies (according to the respondents). However, the three principles present different avenues to this common goal. The pricing policy at Alfa was cost-oriented both in its cause and effect. Prices were set based on calculated order costs in order to maximize machine utilization, and thus, minimize costs per unit of production (i.e. operating leverage). The pricing policy at Beta and Gamma was oriented towards capturing the individual commercial opportunity by the assessment of each individual customer's willingness-to-pay (i.e. price discrimination). And finally, the pricing policy of Delta and Epsilon was oriented towards leveraging market characteristics by capturing price premiums on their respective market, created by product differentiation in the case of Delta, and a favorable industry structure<sup>51</sup> in the case of Epsilon (i.e. price elasticity leverage).

The five different pricing policies identified in the study are presented in Table 7.1 along with characteristics in terms of key dimensions and main benefits.

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<sup>51</sup>Primarily caused by the geographically delimited market and high industry concentration (see section 5.1.3 for details).

Table 7.1 Empirically identified pricing policies.

	Capacity pricing (Alfa)	Value-based pricing (Beta)	Opportunity pricing (Gamma)	Stability pricing (Delta)	Model-plant pricing (Epsilon)
<b>Key dimensions</b>					
<i>Price discrimination</i>	Product groups are priced at different cost levels to achieve capacity objectives	Prices are highly flexible to individual customer's willingness-to-pay and competitive situation	Prices are highly flexible to individual customer's willingness-to-pay and competitive situation	Prices are based on a notion of long term stability and market credibility	Prices are based on a notion of orders' relative resource-consumption (according to the pricing model's order allocations)
<i>Price elasticity leverage</i>	Market factors have a limited impact on the initial pricing decision but affects the final pricing decision through negotiations	Prices are based on an assessment of market factors affecting the customer's willingness-to-pay and the competitive situation (using added value on material costs as a key parameter)	Prices are based on an assessment of market factors affecting the customer's willingness-to-pay and the competitive situation (using price/KSM and full costs as a key parameters)	Prices are partly based on market factors (prices for differentiated products are based on a mark-up on full costs while less differentiated products are priced based on a market assessment)	Market factors influences the preliminary pricing decision through strategically set standard costs/margins in the pricing model and the final pricing decision through negotiations
<i>Operating leverage</i>	Prices are based on the full cost calculation (full cost, cash-flow zero, and variable cost)	Costs have a very limited impact on price	The full cost calculation is used as a benchmark for evaluating and justifying prices	Prices are partly based on full costs (prices for differentiated products are based on a mark-up on full costs while less differentiated products are priced based on a market assessment)	Prices are based on standard costs generated according to ABC-principles
<b>Main benefits</b>	Maximization of volume/contribution given capacity restraints	Price discrimination	Price discrimination	High stable prices and market credibility	High order contribution on smaller orders/customers and market wide price coherence

### 7.1.2 Pricing activities

Table 7.2 shows the four pricing related activities identified in the empirical study. All four activities are of course necessary parts of the pricing process, but as highlighted in Table 7.2 there are important differences between pricing policies in how particular activities are executed and the relative weight placed on them. Hence, the presentation in Table 7.2 does not attempt to give a complete presentation of the different pricing processes, but rather to highlight the type of differences observed between pricing policies.



Table 7.2 Empirically identified pricing activities.

Pricing policy	Capacity pricing (Alfa)	Value-based pricing (Beta)	Opportunity pricing (Gamma)	Stability pricing (Delta)	Model plant pricing (Epsilon)
<b>Evaluation and planning</b>	(handled ad hoc by management or in conjunction with the budget process)			<b>Key activity</b> Regular (monthly) customer profitability assessment based on post-calculated “real costs”	<b>Key activity</b> Annual national management team meetings where the parameters and structure of the pricing model is decided
<b>Customer assessment</b>	(not a key activity)	<b>Key activity</b> Highly flexible and idiographic team-based assessment of each new account	<b>Key activity</b> Highly flexible and idiographic assessment of each new account is made by the commercial manager	<b>Key activity</b> Significant efforts exerted in the initial information gathering and inquiry definition phase to generate long term valid price	(not a key activity)
<b>Preliminary pricing decision</b>	<b>Key activity</b> Price is set based on a choice of a specific cost-base and mark up/-down on the cost-base decided by the external sales rep	<b>Key activity</b> Price is set based on customer’s willingness-to-pay which is assessed in a team-based investigation and specified in terms of added value	<b>Key activity</b> Price is set based on the individual customer’s willingness-to-pay which is estimated by the commercial manager	<b>Key activity</b> Price is set based on fixed cost-based mark-up on different product groups	<b>Key activity</b> Price is set based on a choice of price-base (level of CMI) which is decided by the external sales rep
<b>Negotiation</b>	<b>Key activity</b> Individual customer’s willingness-to-pay assessed through negotiations	(prices are generally not negotiated)			<b>Key activity</b> Individual customer’s willingness-to-pay assessed through negotiations

As illustrated in Table 7.2, the five pricing policies were different with regard to emphasis and execution of pricing activities. First, there was an important difference in the relative emphasis on Evaluation and planning activities where Delta's stability pricing and Epsilon's model plant pricing relied extensively on non-operational evaluation and planning activities related to the post-cost calculation system in Delta and the model plant pricing system in Epsilon. Second, there was a significant difference regarding the stage of the pricing process at which key customer information needed to finalize the pricing decision was collected. In the case of Alfa's capacity pricing and Epsilon's model plant pricing, this information was collected late in the process through engaging in negotiations with the individual customer, while the other units were much more reluctant to engage in negotiations with individual customers, relying more on the early customer assessment activity to collect the necessary information. Third, there were important differences in how preliminary pricing decisions were executed in terms of authority levels and the extent to which decisions were systematized, or based more on the personal discretion of the decision-maker.

*Evaluation and planning.* The pricing policy of Delta and Epsilon relied extensively on non-operational activities related to evaluation and planning. In the case of Delta's stability oriented pricing policy, these activities were directly related to the regular profitability evaluations at the customer and order level that was enabled by the information generated by the post-cost calculation system. The profitability evaluations provided an important means of improving the accuracy and long term viability of prices in terms of an early identification of profitable and unprofitable pricing situations. In the case of Epsilon's model plant pricing policy, these activities were directly related to the annual national management team meeting (where price tactics, the structure of the model, returns and standard costs for the national market were decided for the coming year) and the model plant pricing system. This annual meeting provided an important means for generating central control over strategic pricing objectives, and incentives structures at the order and customer level.

*Customer assessment.* The pricing policy of Delta, Gamma and Beta relied extensively on the information gathering- and project definition phases of the pricing process. In the case of Delta's stability oriented

pricing policy, the sales rep's gathering of account related information prior to the preliminary pricing decision played an important role in guaranteeing that the quoted price would be perceived as fair, thus protecting Delta's local price leadership and market credibility. In the case of Gamma's opportunity pricing and Beta's value-based pricing, the process of gathering information and defining the project provided an idiosyncratic assessment of each new account that highlighted the opportunities in each individual situation to charge a higher price.

*Preliminary pricing decision.* The preliminary pricing decision was a key activity in all five cases. However, there were, related to the level of delegated control and systematization of the informational input, important differences in how the activity was executed. In the case of Alfa, Delta and Epsilon, the preliminary pricing decision was delegated down to the individual sales reps who made the preliminary pricing decision based on their personal judgment, while being controlled by the system generated parameters, the routines tied to the system (such as the pre-calculated costs or the model plant pricing system) and formal price guidelines. The routines tied to the respective systems were often formulated in terms of certain parameters to be used in order to arrive at price (such as a base-value and mark-up/-down) and established price guidelines or authority guidelines marking out minimum prices (such as the use of cash-flow zero in the case of Alfa as a minimum price). With this set-up, the process was controlled by limiting personal discretion (which was present in the sales rep's choice of cost-base and mark-up) by tying it to a certain system or set of formal guidelines while delegating the actual decision to be made relatively far down in the organization. Contrary to this situation, in the case of Beta and Gamma, the preliminary pricing decision was made by a central function or manager who made the preliminary pricing decision in a more or less unstructured way based on personal judgment and idiosyncratic information. Hence, with this set-up, the process was controlled by having the pricing authority centralized to a particular person who was trusted to make the decision free from restrictions imposed by formal guidelines or system-driven routines.

*Negotiation.* The pricing policy of Alfa and Epsilon differed from the other cases in the sense that they relied extensively on the customer negotiation process following the quotation. This practice enabled Alfa

and Epsilon to adapt the final pricing decision to customer-specific information acquired in the negotiation process. Thus, the chances of getting individual orders increased. In both cases the reliance on negotiations was made possible by the organizational set-up of having the pricing authority delegated down to the sales reps; these were then able to bargain directly with each individual customer. The side-effect of this practice was, however, that although it enabled the organization to absorb customer-specific information that could not be systematized or anticipated in advance, it also carried with it a loss of organizational control. This was usually handled by setting up different forms of constraint prohibiting the individual sales rep to lower prices (such as sales provision, secretly added margins, pricing guidelines, etc.). In the case of Alfa's capacity pricing, the reliance on the negotiation process and delegation of pricing authority played an important role in providing the process with additional flexibility in meeting customer demand, and thus requirements regarding sufficient capacity utilization. In the case of Epsilon's model plant pricing policy, customer negotiations played a similar role related to the additional flexibility gained from the negotiation process.

As mentioned above, three significant differences were identified when comparing the five cases: (1) differences in emphasis on evaluation and planning activities, (2) differences in the reliance on customer assessment or negotiation, and (3) differences in how the preliminary pricing decision was executed. These differences can be viewed as a result of the unit's set-up of particular pricing capability elements.

- The emphasis on evaluation and planning activities in the pricing process of Delta and Epsilon was closely tied to the investments in particular IT-based systems (post-cost calculation system and model plant pricing system).
- The reliance on customer assessment (Beta, Gamma, and Delta) or negotiation (Alfa and Epsilon) was closely tied to the organizational set-up and level of pricing authority at the different units. Hence, using customer negotiation as a significant tool in the pricing process was made possible by delegating the pricing authority down to the individual sales reps. On the other hand, units where the pricing authority was held by a central function

had to exert more effort earlier on in the pricing process to gather sufficient information.

- The practice of executing pricing decisions under more controlled or routinized circumstances (Alfa, Delta Epsilon) was closely tied to the delegation of the pricing authority to lower organizational levels, while units relying on a more centralized pricing authority (Beta & Gamma) executed pricing decisions in a more unstructured way with greater personal discretion.

### 7.1.3 Pricing capability elements

Table 7.3 summarizes the different pricing capability elements of key importance for enabling the activities and pricing policies discussed in previous sections. According to the classification introduced in Chapter 6, observations at the studied units can be sorted into six elements: (1) *IT-based systems*, (2) *Price parameters*, (3) *Commercial organization*, (4) *Pricing authority*, (5) *Incentive controlling arrangements*, and (6) *Commercial experience*.

*1. IT-based systems.* Different types of IT-based systems affecting the pricing process were in place at all the units. Three types of systems were identified in the study: pre-cost calculation systems, post-cost calculation systems, and systems for registering and handling customer- and inquiry-specific information. The use of IT-systems was associated with four activities.

- Evaluation and planning
- Customer assessment
- Preliminary pricing decision
- Negotiation

*Evaluation and planning.* IT-based systems constituted a primary means by which Delta and Epsilon structured and disseminated strategic information and evaluated performance at the order level. Hence, the primary role of IT-based systems in evaluation and planning was two-fold: (a) to provide and structure information, and (b) to provide a common ground for the alignment of different interests and incentives across the organization.

*Customer assessment.* IT-based systems played a surprisingly minor role across all studied units in gathering and structuring market information prior to the pricing decision. All units used some form of an IT-supported system for registering incoming inquiries and defining new projects, but the impact and use of these systems when setting the price was limited. However, differing somewhat from the other studied units, the case of Delta stood out from the other units regarding the relative emphasis on structuring account related information in an IT-system prior to the pricing decision. The use of IT-based systems for registering and specifying new inquiries was an important means of reducing the arbitrariness of information needed later in the pricing process. This sharpened the precision of the pricing decision without extensive reliance on the personal discretion of the decision-maker. Hence, the primary role of IT-based systems in customer assessment was to provide and structure information relevant for the pricing decision at an early phase in the process.

*Preliminary pricing decision.* IT-based systems, in the form of IT-supported costing systems, constituted an important instrument in the preliminary pricing decision at all the studied units except Beta. The primary role of the systems was to provide the decision-maker with cost information, and a pre-set structure for making the pricing decision, which played an important role in limiting the personal discretion of the decision-maker.

*Negotiation.* Besides the use of a particular set of price parameters, IT-based systems constituted an important means by which Alfa and Epsilon limited the role of personal discretion in the negotiations by creating a controlled structure tied to the set-up of the IT-system.

**2. Price parameters.** Five different set-ups regarding the pricing parameters that were used to guide pricing decisions were identified in the study: (1) variable cost, cash-flow zero, full cost, index of coverage of overhead (Alfa); (2) added value (Beta); (3) price/KSM and price index of full cost (Gamma); (4) full cost plus/minus X % (Delta), and (5) CMI (Epsilon). The type of pricing parameters used at the different units primarily affected two activities.

- Preliminary pricing decision
- Negotiation

Price parameters were tightly linked to the type of (or lack of) an IT-based pricing system employed at the different units (however, not equivalent as shown by the Beta case) and played an important role in securing a certain routine approach to the preliminary pricing decision and negotiation that limited individual discretion. The role of the particular pricing parameters used at the different units was that of controlling the behavior of the decision-maker, rather than providing additional information by suggesting optimal prices. This was illustrated by the fact that; in two out of the five cases, the information generated by the system was deliberately distorted in ways that favored the individuals controlling the set-up of pricing parameters. Moreover, parameters were first and foremost set as minimum limits.

Table 7.3 Empirically identified pricing capability elements.

Pricing capability element	Capacity pricing (Alfa)	Value-based pricing (Beta)	Opportunity pricing (Gamma)	Stability pricing (Delta)	Model plant pricing (Epsilon)
<b>1. IT-based systems (IBS)</b>	Plant pre-cost calculation system	(not a key element)	National pre-cost calculation system	Plant pre-cost calculation system Plant post-cost calculation system Internal system/form for registering inquiry specification (BIS)	National pricing model (influenced by CRM- and sales administrative systems)
<b>2. Price parameters (PP)</b>	Variable cost, cash-flow zero, full cost, and index of coverage of overhead costs	Added value	Price/KSM and price index (full cost)	Full cost plus/minus X %	Contribution margin index (CMI)
<b>3. Commercial organization (CO)</b>	Plant-level organization with internal/external sales reps	National-level account team-based organization	National-level organization with responsibility split between commercial department responsible for price and national sales department responsible for sales/turnover	Plant-level organization with internal sales department responsible for pricing and separate national external sales organization (SSO)	Plant-level organization with external and internal sales reps
<b>4. Pricing authority (PA)</b>	Pricing authority held by external sales reps	Pricing authority held by sales & marketing manager (and key account managers)	Pricing authority held by commercial manager	Pricing authority held by internal sales reps	Pricing authority held by external sales reps
<b>5. Incentive controlling arrangements (ICA)</b>	Secretly added margins in costing system and sales provision	(not a key element)	(not a key element)	Secretly added margins in costing system	(not a key element)
<b>6. Commercial experience (CE)</b>	Selecting cost base, mark-up and negotiation	Identifying commercially well positioned solutions and their corresponding added value	Judging the maximum willingness-to-pay of individual customers (i.e. taking advantage of commercial opportunities)	Gathering/structuring relevant market- and cost information, and commercially judging long-term validity of prices	Selecting a correct CMI based on commercial assessment of customer and negotiation



**3. Commercial organization.** Four different types of commercial organizations were identified in the study: (1) Plant-level commercial organization with external and internal sales reps (Alfa, Epsilon), (2) National commercial organization with key account teams (Beta), (3) National commercial organization with separate sales and margin responsibility (Gamma), and (4) Plant-level commercial organization with key account teams and separate external sales organization (Delta). Hence, out of five studied cases, three plant-level commercial organizations and two national commercial organizations were observed. Further, two units (Alfa, Epsilon) operated with a traditional set-up with one external sales department carrying most of the commercial responsibility and customer interaction, and one internal sales department handling administrative work. One unit operated solely with key account teams (Beta), one unit operated with a commercially responsible internal sales department (similar to a key account set-up) and a separate national sales organization (Delta), and one unit operated with one commercial department responsible for pricing and one sales department responsible for turnover and volume (Gamma).

The types of commercial organizations identified at the different units had important effects on all four identified activities.

- Evaluation and planning
- Customer assessment
- Preliminary pricing decision
- Negotiation

*Evaluation and planning.* The level at which the commercial organization was organized was an important condition governing evaluation and planning activities. In the case of Epsilon, even though the unit operated with a plant-level commercial organization, the coordination of evaluation and planning at a national level in the annual pricing meeting was an important tool for aligning the pricing policies of all units to a single principle that was independent of the individual unit's cost structure and objectives. The national coordination generated central control over strategic objectives and the unit's incentives structures in terms of performance indicators at the order level. In the case of Delta, which also operated a plant-level commercial organization, but with a separate national sales organization, similar coordination effects

could be observed as a result of the national sales approach in terms of coherent prices and less competitive pricing between different units belonging to the same external sales organization.

*Customer assessment.* The level at which the commercial organization was organized also governed market assessment activities at the studied units. At all these units, the most important source of market information was the sales reps/key account manager's direct customer interaction. In cases where units operated solely with a plant-level commercial organization, the sources of market information were limited to a rather small number of individuals working together with a limited number of customers. On the other hand, in cases where units operated with national sales organizations, sources of market information included a larger number of sales reps and customers. Hence, overall observations indicated that the organizational set-up of the commercial organization had an important impact on the amount and quality of market information generated in the market & project definition activity.

*Preliminary pricing decision and Negotiation.* The type of commercial organization observed across units in terms of departmental set-up and their division of responsibilities had effects on how the preliminary pricing decision and customer negotiations were performed. These effects are most visible when comparing the organizational set-up of Gamma and Delta (separate pricing and sales function) with Alfa, Beta, and Epsilon (one pricing and sales function). The separation of the pricing function from sales detached the preliminary pricing decision (and negotiations) from the overall sales process, thus reducing the incentive conflict between gaining turnover/volume and high prices. Hence, by separating and balancing the different interests, the units were able to make sure that both interests were given proper attention and weight when making the pricing decision and carrying out customer negotiations.

**4. Pricing authority.** The organizational level or function at which different types of pricing decisions were made played an important part in how activities were performed. Four different set-ups regarding pricing authority were identified in the study: (1) pricing authority held by a special pricing function (Gamma), (2) pricing authority held by the sales and marketing manager (Beta), (3) pricing authority held by the key account managers or internal sales reps (Delta), and (4) pricing au-

thority held by external sales reps (Alfa, Epsilon). The level of the pricing authority was primarily associated with two activities.

- Preliminary pricing decision
- Negotiation

The pricing authority held at different levels in the organization had an important effect on how the preliminary pricing decisions, negotiations and final pricing decisions were set-up. The units that had the pricing authority delegated down to the sales reps tended to rely more on the customer negotiations for arriving at a price that was acceptable for the individual customer. However, units with a more centralized pricing authority put less weight on customer negotiations, hence, relying on the early part of the process to find an acceptable price. The differences in level of pricing authority between units can, at least in part, be linked to the relative importance of negotiations for the final pricing decision. This, in turn, indicates the trade-off between the detailed customer- and situation-specific information that can be gained by relying extensively on the sales rep's personal discretion and the loss of control over individual prices experienced under these circumstances. Hence, the level of pricing authority held at different levels of the organization had a significant effect on the detail of the situation- and customer-specific information gained in the direct interaction process with the customer, and the level of control over individual prices.

*5. Incentive controlling arrangements.* The deliberate restriction of the amount and type of (cost-) information available to the decision-maker played an important part in manipulating and controlling the pricing decisions being made at Alfa and Delta. In the case of Alfa, these arrangements were also complemented by the use of sales provision for the external sales reps. Generally, as shown in Chapter 6, sales provision had a limited impact on the pricing process and was only effectively used as a tool to control pricing discretion at Alfa. Sales provision at Delta was only awarded the external sales reps (who lacked pricing authority). Sales provision at Epsilon was also awarded the external sales reps (who held pricing authority), but these arrangements lacked significance due to low levels of reimbursement and low correlation to individual performance. The incentive controlling arrangements were primarily associated with two key activities.

- Preliminary pricing decision
- Negotiation

By releasing inaccurate and inflated cost information, sales reps were led to believe that the orders were less profitable than they actually were. This arrangement was intended to make decision-makers at lower organizational levels (i.e. sales reps) fight harder to keep price levels up and not accept prices close to the cost of producing the order. Hence, in the case of Alfa and Delta, the practice of providing decision-makers with false information was an important instrument for controlling the pricing discretion of individual sales reps. In the case of Alfa, the control was further strengthened by providing additional incentives in the form of sales provision linked to margin targets.

**6. Commercial experience.** Commercial discretion in different forms was present in the pricing process of all studied units. The type of discretion observed across units was built on personal knowledge or experience that had been built over a longer time. Instances of the specific type of commercial experience identified in the study were primarily associated with the performance of three types of activities.

- Customer assessment
- Preliminary pricing decision
- Negotiation

The personal experience and skill of individual employees (mainly sales reps, key account managers, and sales managers) was the single most important element enabling an effective assessment of market factors, the preliminary pricing decision, and negotiations. The extensive reliance on commercial experience was partly a result of the low level of systematization in these areas, but also a consequence of the complex situation facing the units when trying to assess relevant market data and thus the validity of different prices. This difficulty arose from the customized and novel nature of the product being sold. This produced a large number of product types, each with its own specific customer benefits, production costs and logistic solutions to be taken into account when setting the price. Hence, keeping the market assessment and the pricing decision unstructured and relying on the ability of individual sales reps and managers to judge different commercial situations on their own merit, rather than implementing systematized solutions,

was one way for the studied units to manage the particular difficulties involved in pricing customized products. However, to the same extent that this practice provided sufficient flexibility in handling the informational aspects of the pricing process, it also introduced severe control issues, which were managed by introducing specific organizational and incentive controlling arrangements.

The particular function of the six identified capability elements is sorted by activity in Table 7.4. The column on the right hand side of Table 7.4 summarizes each element's main function across activities.

Table 7.4 Empirically identified capability elements and their key functions sorted by activity.

Activity	Evaluation and planning	Customer assessment	Preliminary pricing decision	Negotiation	Main function of element
<b>Element</b>					
<b>1. IT-based systems (IBS)</b>	Structure/ disseminate strategic information and evaluate performance at order level	Structure account related information	Provide information and a controlled structure that limit personal discretion	Provide controlled structure that limit personal discretion	Provide, structure and disseminate information  Enable a controlled structure that limit personal discretion
<b>2. Price parameters (PP)</b>	-	-	Provide controlled structure that limit personal discretion	Provide controlled structure that limit personal discretion	Enable a controlled structure that limit personal discretion
<b>3. Commercial organization (CO)</b>	Coordination/ alignment of objectives and incentives	Aggregation and dissemination of information	Coordination and organizational control	Coordination and organizational control	Enable coordination and organizational control  Enable aggregation and dissemination of information
<b>4. Pricing authority (PA)</b>	-	-	Coordination and organizational control	Coordination and organizational control	Enable coordination and organizational control
<b>5. Incentive controlling arrangements (ICA)</b>	-	-	Organizational control over personal pricing discretion	Organizational control over personal pricing discretion	Enable organizational control over personal pricing discretion
<b>6. Commercial experience (CE)</b>	-	Detailed customer specific information	Detailed customer specific information	Detailed customer specific information	Enable detailed customer specific information

As shown in Table 7.4, the main function of the identified elements were related to different aspects of the informational input to the pricing process, and the coordination and control of individual pricing discretion needed to maintain price levels and a desired price structure. Hence, when raising the level of abstraction beyond individual observations of how identified pricing capability elements affected the execution of pricing activities, the concepts of *information*<sup>52</sup> and *organizational control*<sup>53</sup> emerged as central for, on a general level, explaining how pricing capability elements affect the pricing process. In other words, the analysis showed that the main function of capability elements could be described as enabling elevated levels of information and organizational control. However, the identified capability elements were not equal in terms of their contribution. The results showed that capability elements that could be classified as system capital (IBS, PP), social capital (CO, PA, ICA), and human capital (CE), played different roles in terms of their effect on the pricing process. These effects are summarized in Table 7.5.

Table 7.5 Type of pricing capability elements, pricing activities and main function.

Activity	Evaluation and planning	Customer assessment	Preliminary pricing decision	Negotiation
<b>Type of element</b>				
<b>System capital (IBS, PP)</b>	Information & Control	Information	Information & Control	Control
<b>Social capital (CO, PA, ICA)</b>	Control	(Information)	Control	Control
<b>Human capital (CE)</b>	-	Information	Information	Information

<sup>52</sup>The empirical study highlighted information about order costs, customers, and competitors.

<sup>53</sup>For example, by controlling; who makes the decision, what decision parameters that are used, how information is structured before the decision, objectives and evaluation criteria, the organizational context in which the decision is made, etc. Generally, the concept of organizational control is used as a way of describing the mechanisms by which an organization (and its members) is managed towards its objectives (see Ouchi, 1979; 1980).

The overall utilization of system capital in the five studied cases was limited. However, in cases where major system-investments had been made, such as Delta's post-cost calculation system, Alfa's pre-cost calculation system, or Epsilon's model plant pricing system, these had an important effect on the pricing process in terms of enabling information and organizational control.

Different forms of social capital, in the form of organizational structure, level of pricing authority, and incentive controlling arrangements, played an important role across all studied cases in providing organizational control over the different steps of the pricing process. Besides its primary role of providing control over employees involved in the pricing process, social capital also affected the amount and quality of information relevant for the pricing decision. This secondary effect of social capital was most visible in how the scope of the organizational structure (plant, national, etc.) affected the units' ability to aggregate information in the market assessment phase.

Human capital, in the form of key employee's commercial experience, was the single most important source of information at all studied units. The primary reason for relying on human capital when gathering and assessing market information was its capacity for providing detailed customer-specific information and handling the lack of structure facing the unit when pricing customized products.

The interaction between the different forms of capability elements had important effects at the activity level; both in terms of what activities that were performed, and how they were performed. Interaction between different forms of capital showed two particular patterns:

- Substitutability
- Complementarity

The two different interaction patterns developed as a result of differences between pricing capability elements categorized as system, social, and human capital. Three particular instances of substitutability and complementarity between different types of elements could be identified in the data.



*Complementarity between human and social capital.* The extensive reliance on human capital for gathering information in situations that could not easily be systematized presented severe control issues which were mitigated by heightened investments in particular forms of social capital (such as balancing departmental responsibilities, specifying pricing authority, manipulating information, etc.).

*Substitutability between social and system capital.* Social and system capital shared key functions of limiting and controlling personal pricing discretion. System capital was used as a means of achieving control over relatively structured situations. Social capital, on the other hand, was used as a means of controlling unstructured situations characterized by uncertainty and a high level of reliance on personal discretion.

*Substitutability between system and human capital.* In situations where decision-parameters could be anticipated and operationalized in advance (for example in assessing order costs and profitability) different forms of system capital provided the units with reliable information, while individual discretion was controlled by the particular structure and content of the system. However, in situations where decision-parameters were difficult to specify in advance (for example when assessing an individual customer's willingness-to-pay or a specific competitor's behavior) units relied on employees' personal discretion and experience for judging the situation.

#### 7.1.4 A contextualized pricing capability framework

Based on the theoretical concepts and relationships introduced in the preliminary pricing capability framework, the empirical results of the case-study (sections 7.1.1-7.1.3) are summarized in Figure 7.1. The contextualized pricing capability framework is based on, and limited to, observations made concerning (1) pricing capability elements, (2) pricing activities, and (3) pricing policy at the five studied units. It should also be pointed out that Figure 7.1 represents neither an empirically nor theoretically comprehensive account of all possible contingencies or aspects that might influence the relationship between concepts. Rather, the different relationships posited in Figure 7.1 represent a set of abstractions strictly based on observations in the five cases that highlight particular functional relationships identified as distinctive or of key importance for enabling a certain outcome. Hence, the pricing activities

associated with a certain pricing policy have been chosen because they represent important components for the implementation of the particular pricing policy. Similarly, the pricing capability elements associated with a certain pricing activity have been chosen because they represent important components for the execution of the particular activity.

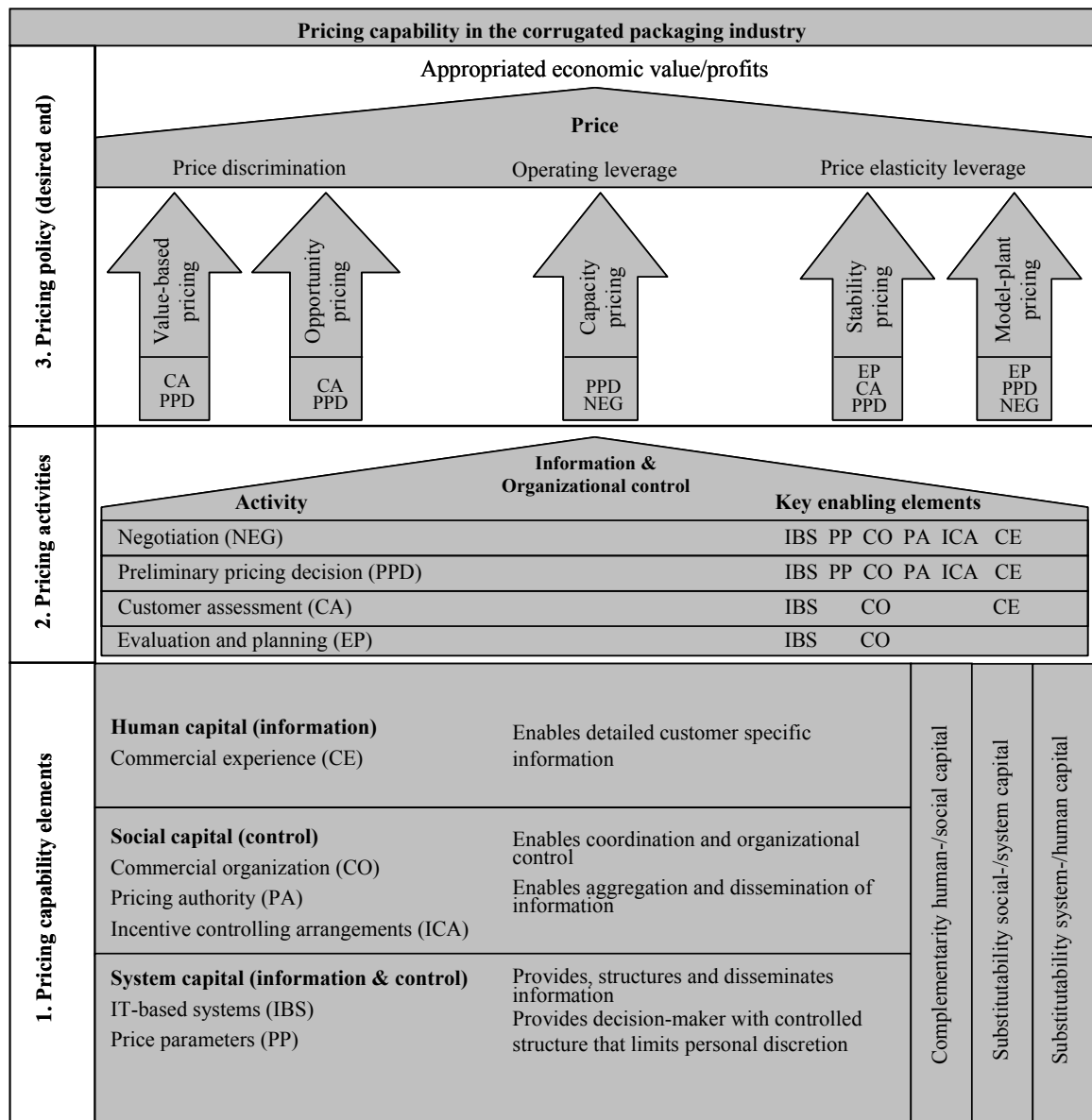


Figure 7.1 Deployment of pricing capability contextualized to the corrugated packaging industry and case-study results.

Figure 7.1 illustrates how (1) *pricing capability elements* were deployed through a particular set of (2) *pricing activities* towards the attainment of the desired (3) *pricing policy*. The framework states the fundamental

forms of pricing capability elements identified in the study (CE, CO, PA, ICA, IBS, PP) along with their key function and the interaction patterns between different types of pricing capability elements (complementarity, substitutability). Further, the framework illustrates the differential impact of pricing capability elements on particular pricing activities, the main function of capability elements (information, organizational control), and the relative importance of individual pricing activities for the implementation of a certain pricing policy. Finally, the framework identifies three economic principles through which pricing policy affected the level of appropriated economic value and profits (price discrimination, operating leverage, price elasticity leverage).

*1. Pricing capability elements.* Pricing capability at the studied units was built on six different capability elements: (1) IT-based systems (IBS), (2) Price parameters (PP), (3) Commercial organization (CO), (4) Pricing authority (PA), (5) Incentive controlling arrangements (ICA), and (6) Commercial experience (CE). The prime function of capability elements was to enable particular pricing activities by providing the pricing process with *information* and *organizational control*. The six identified pricing capability elements differed in how they affected the pricing process. The prime function of pricing capability elements categorized as human capital (CE) was to enable detailed customer specific information. The prime function of pricing capability elements categorized as social capital (CO, PA, ICA) was to enable coordination and organizational control, and enable aggregation and dissemination of information. And finally, the prime function of pricing capability elements categorized as system capital (IBS, PP) was to provide, structure and disseminate information, and provide decision makers with a controlled structure that limited personal discretion.

Interaction between different pricing capability elements showed two types of patterns: substitutability and complementarity. Substitutability effects were primarily observed between system capital and human capital (for handling information), and between system capital and social capital (for providing organizational control). Complementary effects were primarily observed between human capital and social capital in situations where the dependence on human capital for gathering information relied on control measures provided by different forms of social capital.

**2. Pricing activities.** Pricing capability at the studied units involved four activities: (1) Evaluation and planning (EP), (2) Customer assessment (CA), (3) Preliminary pricing decision (PPD), and (4) Negotiation (NEG). Three of the four activities (CA, PPD, NEG) were operational in the sense that they were performed in conjunction with individual pricing decisions, and one activity (EP) was performed as a part of the long-term planning process. The performance of pricing activities was enabled by the six identified capability elements through elevated information and organizational control in different forms depending on the activity being executed. Effects of the six identified capability elements could be linked to the execution of all activities. Despite this, there were differences in how particular capability elements affected the execution of certain activities (see section 7.1.3).

**3. Pricing policy (*desired end*).** The desired end and outcome of pricing capability at the studied units were five case-specific pricing policies: capacity pricing (Alfa), value-based pricing (Beta), opportunity pricing (Gamma), stability pricing (Delta), and model plant pricing (Epsilon). The five different pricing policies varied along three dimensions: price discrimination, operating leverage, and price elasticity leverage. In addition to providing a means of describing key differences between pricing policies, the dimensions outlined above also represented the economic principle by which pricing policy affected performance outcomes (stated as appropriated economic value/profits in Figure 7.1).

1. *Price discrimination.* The deployment of human capital (CE) in particular activities (CA, PPD) enabled detailed customer specific information, which allowed units to adapt prices to individual customer's willingness-to-pay.
2. *Operating leverage.* The deployment of system capital (IBS, PP) in particular activities (PPD, NEG) enabled detailed cost and capacity information and a controlled structure, which allowed units to maximize capacity utilization and thus minimize costs per unit of production.
3. *Price elasticity leverage.* The deployment of social capital (CO) and system capital (IBS) in particular activities (EP, CA, PPD) enabled coordination, and aggregation/dissemination of information, which allowed units to capture price premiums by leveraging market characteristics.

The relationships outlined above are delimited to the studied cases and do not represent other possible ways in which a certain outcome can be reached. For example, the framework posits customer assessment as a distinctive and key enabling activity for price discrimination while this outcome could possibly be reached by relying extensively on a negotiation. Further, the posited relationships have been developed from distinctive and key enabling components, which means that components that do not fulfill these criteria have been left out. For example, Epsilon achieved price elasticity leverage despite relying extensively on a negotiation. This, however, does not qualify this activity as a distinctive and key enabling activity for price elasticity leverage.

On a general level, the contextualized pricing capability framework, presented in Figure 7.1, highlights the importance of the concepts of pricing capability elements, pricing activities, and pricing policy for understanding how pricing related advantages are accomplished by enabling superior information and organizational control.

## 7.2 A revised pricing capability framework

This section provides a comparison between the empirical results presented in the previous section and the preliminary pricing capability framework. The aim of the comparison is to identify similarities and differences that can be used to develop the concept of pricing capability.

### 7.2.1 Pricing policy

Pricing policy (or pricing strategy) has been defined as a policy that governs how prices vary over products, customers and time. The treatment of pricing policy in prior research (Tellis, 1986; Noble & Gruca, 1999; Chia & Noble, 1999; Forman & Lancioni, 2002; Forman & Hunt, 2005) has focused on the viability of particular pricing policies relative to determinants or conditions such as differentiation, scale, demand, and elasticity. In addition to portraying pricing policy as primarily conditioned by (external) determinants, research tends to view the optimization of pricing policy, relative to determinants, as largely free of organizational constraints related to firm endowments and processes. The capability perspective adopted in this thesis, provides a different

picture, viewing pricing policy as an organizational outcome produced and severely restricted by the firm's assets, routines and organizational processes. Table 7.6 provides a comparison between the main empirical results on pricing policy and the preliminary pricing capability framework.

Table 7.6 Pricing policy: Empirical results compared to preliminary pricing capability framework.

<b>Economic principle</b>	<b>Empirically identified pricing policies</b>	<b>Pricing policies in preliminary framework</b>	<b>Comparison</b>
Price discrimination	Value-based pricing (Beta) Opportunity pricing (Gamma)	-	Pricing policies in the preliminary framework do not directly match the price discrimination driven pricing policy (i.e. policies are generally not oriented towards price discrimination or commercial opportunism)
Operating leverage	Capacity pricing (Alfa)	Experience curve pricing Low-price supplier Cost-plus pricing	Experience curve pricing, low-price supplier, and cost-plus pricing match the operating leverage driven pricing policy (i.e. policies are cost-oriented)
Price elasticity leverage	Stability pricing (Delta) Model plant pricing (Epsilon)	Penetration pricing Price skimming Leader pricing	Penetration pricing, price skimming and leader pricing match the price elasticity leverage driven pricing policy (i.e. policies are demand-oriented)
Combination of economic principles	-	Customer value pricing Compl. product pricing Price bundling	Customer value pricing, complementary product pricing and price bundling primarily reflect differences within a product line while relying on a combination of (indirect) price discrimination, operating leverage (e.g. shared costs) and price elasticity leverage (e.g. cross-price elasticity) to maximize revenues
Passivity/weakness	-	Parity pricing	Parity pricing is a policy reflecting passivity (weakness) that represents lack of outlined key dimensions

## Empirical results

Five different case-specific pricing policies were identified in the empirical data. Pricing policy attributes were primarily governed by (or constituted a reflection of) the set-up of pricing activities and pricing capability elements. Pricing policy at the studied units was described according to three dimensions (price discrimination, operating leverage, and price elasticity leverage). Besides being useful for describing case-specific pricing policies, the dimensions also corresponded to the economic principles by which individual pricing policies could be linked to performance outcomes. Prices at Alfa were set in order to maximize machine utilization, and thus, minimize costs per unit of production (i.e. operating leverage). The pricing policy at Beta and Gamma was oriented towards capturing the individual commercial opportunity by the assessment of each individual customer's willingness-to-pay (i.e. price discrimination). And finally, the pricing policy of Delta and Epsilon was oriented towards leveraging market characteristics by capturing price premiums on their respective market, created by product differentiation in the case of Delta, and a favourable industry structure in the case of Epsilon (i.e. price elasticity leverage). Hence, individual pricing policies could be grouped according to the type of economic principle linking it to performance outcomes. This produced three basic or generic forms of pricing policy.

1. *Price discrimination driven pricing policy.* Policy is based on price discrimination (Beta, Gamma).
2. *Operating leverage driven pricing policy.* Policy is based on operating leverage (Alfa).
3. *Price elasticity leverage driven pricing policy.* Policy is based on price elasticity leverage (Delta, Epsilon).

## Preliminary pricing capability framework

The preliminary framework outlined the concept of pricing policy along three key dimensions of price discrimination, operating leverage, and price elasticity leverage. In order to further specify the concept, ten commonly occurring industrial pricing policies were outlined based on prior studies (see Noble & Gruca, 1999; Tellis, 1986).



## Comparison between empirical results and preliminary framework

The three economic principles and generic pricing policies developed as a result of the study provide a basis for identifying common characteristics between individual pricing policies included in the preliminary framework. Hence, stating the economic principles explicitly provides additional clarity regarding the nature of individual pricing policies, and points out important similarities and differences between different pricing policies.

A first observation when comparing empirical results with the preliminary framework was that empirically observed pricing policies were much broader and indecisive than the pricing policies included in the preliminary framework. Hence, policies tended to rely on a mix of different principles rather than being technically defined or explicitly specified to the extent that they could be classified as one or more of the ten pricing policies included in the preliminary framework.

The main difference between empirical results and the preliminary framework was related to the level of price discrimination inherent in the empirically identified pricing policies (exemplified by Beta's value-based pricing and Gamma's opportunity pricing). As shown in Table 7.6, two out of the five empirically identified pricing policies relied extensively on price discrimination while this was almost absent from the ten pricing policies included in the preliminary framework.<sup>54</sup> As mentioned before, in many cases, this difference was partly a result of the customized nature of corrugated packaging. However, it could also be seen as a reflection of an understatement of the role of per sale pricing, negotiations, and discounts, in the pricing policies included in the preliminary framework. Hence, the results highlight the role of price discrimination as a potentially important part of the notion of pricing policy.

### 7.2.2 Pricing activities

The concept of pricing activities was developed in the preliminary pricing capability framework from the standard notion of firm activities (see Porter, 1985; 1991) by introducing content research on pricing or

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<sup>54</sup>A potential exception is *customer value pricing*, which seems to operate partly based on price discrimination and partly on other attributes of focal product line.

price management. Table 7.7 provides a comparison between empirically identified pricing activities and the pricing activities outlined the preliminary framework.

Table 7.7 Pricing activities: Empirical results compared with preliminary pricing capability framework.

Empirically identified pricing activities	Pricing activities in preliminary framework	Comparison
<p><i>Evaluation and planning</i></p> <p>Non-operational activity that played a key role in the pricing process of two cases (Delta &amp; Epsilon). The activity was oriented towards evaluating order/customer profitability and determining the rates/structure of the pricing model</p>	<p>Pricing policy development</p> <p>Cost and profitability analysis</p>	<p>Pricing policy development and <i>ex post</i> cost and profitability analysis was executed in an explicit and formalized way in two cases. In other cases, the activity was implicit and embedded in other strategic planning activities (such as budgeting or management team meetings)</p>
<p><i>Customer assessment</i></p> <p>The activity played a key role in the pricing process of three cases (Beta, Gamma, Delta). The activity was executed on a customer-by-customer basis while focusing on information related to the individual customer and potential competitors</p>	<p>Demand analysis</p> <p>Competitor intelligence</p>	<p>Activities identified in the preliminary framework generally match the customer assessment activity. However, the activity was performed <i>ad hoc</i> in a less systematized way. Aggregated demand or competitor analysis, decoupled from the sales process, was not performed as prescribed in the preliminary framework</p>
<p><i>Preliminary pricing decision</i></p> <p>The activity played a key role in all cases. The way this activity was executed varied between cases in terms of the level of delegated pricing authority/control, the type of information that was used, and the level systemization</p>	<p>(<i>Ex ante</i> cost and profitability analysis)</p>	<p>Activities identified in the preliminary framework did not match the preliminary pricing decision activity. However, in four cases the preliminary pricing decision was tied to the costing and <i>ex ante</i> profitability analysis of the individual order</p>
<p><i>Negotiation</i></p> <p>Bargaining or negotiating with individual customers was an important activity in two cases (Alfa, Epsilon)</p>	<p>Communication and negotiation</p>	<p>The importance of bargaining/negotiation was not reflected in the preliminary framework due to its emphasis on uniform pricing, list prices, and <i>ex ante</i> technical analysis</p>

## Empirical results

The pricing process at the studied units consisted of four activities: (A) Evaluation and planning, (B) Customer assessment, (C) Preliminary pricing decision, and (D) Negotiation and final pricing decision. Three activities were operational (B-D) in the sense that they were performed as an integrated part of the overall sales process in conjunction with each individual sale, one activity (A) was non-operational in the sense that it was decoupled from the sales process and involved long-term planning and evaluation of policy.

## Preliminary pricing capability framework

With the exception of Dutta's et al (2003) account of pricing activities performed in a manufacturing firm, pricing activities were not easily identified in prior research. The price management literature (Monroe, 2003; Nagle & Holden, 2002; Dolan & Simon, 1996) did in general not distinguish pricing activities. Earlier literature on pricing capability (Richards et al, 2005; Vogel et al, 2002; Urbany, 2001), with the exception of Dutta et al (2002; 2003), outlined particular factors, but without defining the precise nature of these factors. Hence, the pricing activities included in the preliminary framework had to be extracted from a broader set of factors in prior studies that focused on what firms actually do when they conduct pricing. The outcome was five identified pricing activities: (1) pricing policy development; (2) demand analysis, (3) competitor intelligence, (4) cost and profitability analysis, and (5) communication and negotiation.

## Comparison between empirical results and preliminary framework

Differences between empirical results and the preliminary framework can, on an overall level, be attributed to the fact that the pricing process described in the preliminary framework operates with the assumption that firms set uniform list prices, while the empirical study illustrated five cases of per sale pricing. A second related difference was the extent to which activities were oriented towards technical analysis, as implied by many activities included in the preliminary framework (cost and profitability analysis, demand analysis, etc.), or procedural aspects, as indicated by activities identified in the empirical study.

A comparison between activities identified in the empirical study and the activities included in the preliminary framework shows four impor-

tant differences. First, activities related to pricing policy development and (*ex post*) cost and profitability analysis was only performed in an explicit and formalized way in two out of the five studied cases. In other cases, activities with a similar function were given low emphasis and performed more or less *ad hoc* in conjunction with other planning activities (such as budgeting or general management team meetings). Second, activities related to demand and competitor analysis were, as indicated above, performed as an integrated part of the sales process towards each individual customer rather than as an aggregated analysis of the market as a whole. Because of this activity's tendency to be executed as a relatively idiosyncratic assessment of specific customers, demand and competitor analysis was performed together as a single "market assessment" activity rather than, as indicated in the preliminary framework, two separate activities based on different techniques. Third, the activity of executing the preliminary pricing decision was a key component of the pricing process across all the studied cases, determining how and at what level individual prices were set. Hence, the empirical study showed that although the analysis of demand, costs, and competitor information was vital for enabling a correct pricing decision, this analysis alone did not automatically determine the customer specific price that was to be used in a certain situation. The centrality of this activity provided an evident discrepancy in the activities included in the preliminary framework. In four of the studied cases, the preliminary pricing decision was tied to the costing of the individual order before a quotation was generated (*ex ante* cost and profitability analysis). To a certain extent, this links the preliminary pricing decision activity to the cost and profitability analysis, however, in a different sense than was intended in the preliminary framework. There, cost and profitability analysis was outlined as an aggregated *ex post* activity aimed at the long term evaluation and planning of a uniform pricing policy than at the implementation of a certain price. Fourth, activities related to customer communication and negotiation played a vital role for the outcome and finalization of the pricing process in two of the studied cases. Although direct price negotiations were avoided in three of the studied cases, the direct interaction with customers and the response to the quotation were in general highlighted as an important part of the pricing process. The focus on the interaction process with the individual customer, which was described in the empirical study, does not fully match the preliminary framework. As mentioned above, this can, at least partly, be

understood as a result of much pricing literature focusing on uniform pricing situations where the list price generated in this process is assumed to stand the pressure from individual customers, and not be subject to significant bargaining attempts.

### 7.2.3 Pricing capability elements

The concept of capability elements has been defined as assets, routines, or discrete bundles of assets and routines, that cause variation in the desired end of the capability. The concept of pricing capability elements was developed from this notion by introducing content research on pricing capability and price management. Table 7.8 provides a comparison between empirical results and the type of pricing capability elements stated in the preliminary pricing capability framework.

Table 7.8 Pricing capability elements: Empirical results compared to preliminary pricing capability framework.

Empirically identified pricing capability elements	Pricing capability elements in preliminary framework	Comparison
<i>Overall orientation of concept</i> Pricing capability elements were found to play an important role in enabling specific pricing activities through elevated information and organizational control	<i>Overall orientation of concept</i> The specific role of pricing capability elements in enabling individual pricing activities, and their general function in the pricing process, were indeterminate in preliminary framework	<i>Overall orientation of concept</i> Relative to the preliminary framework, the empirical study of pricing capability elements provided new insights in three areas: (1) the role of particular elements in enabling pricing activities, (2) the function of pricing capability elements (information & organizational control), (3) interaction patterns between elements
Commercial experience	Pricing skills (human capital)	The empirical study highlighted commercial experience as an important element for handling informational aspects of the pricing process and the inherent uncertainty of the pricing situation
Commercial organization Pricing authority Incentive controlling arrangements	Pricing organization (social capital)	The empirical study highlighted commercial organization, pricing authority, and incentive controlling arrangements as important elements for enabling organizational control, especially in unstructured situations
IT-based systems Price parameters	Pricing information systems (system capital)	The empirical study highlighted IT-based systems and price parameters as important elements for enabling information and organizational control, especially in more structured situations

### Empirical results

Six different capability elements were identified in the empirical study: (1) Commercial experience, (2) Commercial organization, (3) Pricing authority, (4) Incentive controlling arrangements, (5) IT-based systems, and (6) Pricing parameters. The empirical study showed that the prime function of capability elements was to enable specific pricing activities through elevated information and organizational control. Hence, the

particular function of individual capability elements in the pricing process could be tied to either elevated information and/or organizational control. The empirical results also highlighted the different complementary and substitutability effects that occurred among capability elements in providing these particular two functions.

### **Preliminary pricing capability framework**

Prior studies on pricing capability can be divided into two groups: studies that do not define pricing capability micro-structures further than to state them as factors (Richards et al, 2005; Vogel et al, 2002; Urbany, 2001), and studies that specify and define what these factors are (Dutta et al, 2002; 2003). Common across the studies included in the preliminary framework is that they show three types of pricing capability elements: pricing organization (social capital), pricing information systems (systems capital), and pricing skills (human capital).

### **Comparison between empirical results and preliminary framework**

The empirically identified capability elements corresponded to the types of capability elements included in the preliminary framework. However, the empirical study provided a more detailed picture of the different capability elements, their relative importance for the performance of individual activities, and their specific function in the pricing process. In particular, compared to the preliminary framework, the notion of increased information and organizational control add a new way of understanding the nature of pricing capability elements. Further, pricing practices were found to be more reliant on organizational factors (rather than technical instruments or tools) than presumed in the preliminary framework. This observation can be explained by a tendency to delegate pricing decisions to lower levels of the organization, and a general lack of systematization or technical solutions. These practices enabled units to handle uncertainties surrounding individual orders, but which at the same time required extensive organizational control measures to be taken (primarily by investing in social capital).

A comparison between individual capability elements identified in the empirical study and the elements included in preliminary framework delivers some specific insights regarding the properties and role played by the different types of pricing capability elements included in the preliminary framework.

*Pricing skills/human capital (commercial experience).* The commercial experience of co-workers involved in the pricing process was an important element in the pricing process. The empirical results show how commercial experience were particularly important for collecting and evaluating information in unstructured situations characterized by uncertainty (primarily regarding the demand/costs/competitive reaction).

*Pricing organization/social capital (commercial organization, pricing authority, incentive controlling arrangements).* The three different elements of social capital that were identified in the study were of particular importance in the pricing process. Their common function was to provide organizational control over the pricing process, particularly in situations characterized by high levels of individual discretion and the presence of personal estimates based on commercial experience.

*Pricing information systems/system capital (IT-based systems, price parameters).* The two related elements of system capital were of particular importance in the pricing process. The common function of these elements was to provide decision-makers with information and enable organizational control through limiting the personal discretion of the decision-maker using the system. System capital was primarily used as a more efficient and reliable substitute for human capital (regarding information) and social capital (regarding organizational control) in more structured situations where relevant decision-parameters could be specified and operationalized.

## 7.3 Pricing capability and firm performance

The results presented in section 7.1 and 7.2 highlight the particular nature of pricing capability as separate from the type of resources and capabilities commonly investigated in the RBV. This section develops this idea of pricing capability as an instance of a class of strategic factors which prime function is related to the appropriation rather than the creation of economic value.

### 7.3.1 Heterogeneity and immobility of pricing capability

As shown by the empirical study, the implementation of pricing policy is directly enabled by pricing capability elements that operate in concert



to provide the firm with elevated levels of information and organizational control. Hence, the distinctive endowment of pricing capability elements governs the character of executed pricing activities and the pricing policy being implemented. From this perspective, the character of these capability elements becomes essential for determining whether a firm has the potential of gaining an advantage over its competitors in the field of pricing. Hence, to the extent that a firm's fundamental distinctiveness rests on their endowment of resources and capabilities, the question arises of whether pricing capability fulfils the criteria of heterogeneity, imperfect mobility, and *ex ante* and *ex post* limits to competition (see Peteraf, 1993). A positive answer to these questions would imply that advantages relative to competitors caused by the deployment of pricing capability are strategic and sustainable over time.

*Heterogeneity.* The types of pricing capability elements observed in the empirical study were, as outlined in section 7.1.3, heterogeneously distributed across units. The heterogeneity consisted of the different types of systems and organizational forms or arrangements that the studied units had in place, as well as in the type of commercial experience that were being deployed. Further, and more importantly, capability elements were not only different across units in terms of the types of elements that could be identified, but also in terms of the specific interaction pattern between elements and their differential function relative to executed pricing activities and implemented pricing policies. As highlighted in each of the case-specific analyses (see Chapter 6), these potentially strategic differences across cases, could to a certain extent be traced back to path-dependent processes related to specific environmental and historical conditions in each case.

*Imperfect Mobility.* Pricing capability elements were different in terms of their potential mobility (i.e. transferability by trade) although none of the identified elements showed anything close to perfect mobility. The reasons for their limited mobility were, in line with prior research (see Dierickx & Cool, 1989), the level of specialization to the unit's overall strategic position (products, customers, etc.), the level of co-specialization between different pricing capability elements, and between the pricing capability as a whole and other parts of the organization, and finally, the difficulties involved in trading the type of complex composite factors that pricing capability constitute (there are no well-

functioning markets for most of the observed elements or for organizational capabilities in general).

*Ex post limits to competition.* The most immediate threats to the unique or rare attributes of pricing capability (i.e. its heterogeneity) are, in line with prior research (see Barney, 1991; Dierickx & Cool, 1989), the risk of competitor imitation and substitution. As illustrated by the five empirical cases, the risk of imitation is severely reduced by the pricing capability's complex composite and historically path-dependent nature, and the fact that a clear understanding of how pricing capability affects firm performance has so far been lacking. Substitutability poses a second threat to the unique or rare attributes of pricing capability, which, depending on how it is defined, may be more difficult to protect against. However, if by substitution is meant that another firm is able to achieve a strategically equivalent functionality with a different resource or capability, pricing capability may prove to be unusually hard to substitute because of its fundamental function in business.

*Ex ante limits to competition.* The sustainability of a resource-based advantage is dependent on the fact that the benefits accruing from the resource in question are not captured by original factor owners. The main theoretical argument presented in this thesis is directly applicable to this specific risk. As has been argued throughout the thesis, a seller's ability to, in the first step, assess the true value of a factor in a particular use (information), and in the second step, implement actions aimed at capturing this value (organizational control), is in a fundamental sense restricted by human and environmental limitations to perfect competition, such as bounded rationality and uncertainty. This should, at least for less tangible and more complex organizational factors, limit the effects of *ex ante* competition and the risk that benefits of pricing capability are competed away.

In conclusion, the analysis of the sustainability of advantages derived from pricing capability shows that pricing capability seems to be heterogeneously distributed and that this condition, at least principally, is possible to protect over time (see Dutta et al, 2003 for a similar conclusion).

### 7.3.2 The value of pricing capability: Productive and appropriation factors

Performance differences are viewed as derived from rent differentials, attributable to resources having intrinsically different levels of efficiency [...] Superior resources are more 'efficient' in the sense that they enable a firm to produce more economically and/or better satisfy customers wants. In other words, firms with superior resources can deliver greater benefits to their customers for a given cost (or deliver the same benefit levels for a lower cost). (Peteraf & Barney, 2003:311)

Instead of following a competitive logic along the dimensions of customer benefits and economic cost, the pricing capability framework developed in this thesis follows a competitive logic along the primary dimensions of *information* and *organizational control*. Pricing capability does not create economic value in the sense that it affects the level of customer benefit of products sold, or lowers the economic cost of production. Hence, pricing capability is not valuable in the traditional sense of the RBV. However, pricing capability can still have an immense effect on firm performance, and generate a state similar to sustained competitive advantage, if it consistently affects the level of economic value that the firm is able to appropriate from its other productive resources and capabilities, and fulfils basic criteria of heterogeneity, *ex post* limits to competition, imperfect mobility, and *ex ante* limits to competition (see Peteraf, 1993).

Pricing capability affects value appropriation (and profits) through three economic principles; price discrimination, price elasticity leverage, and/or operating leverage, each associated with a generic form of pricing policy. The economic principle of price discrimination is based on the fact that customers receive differential levels of benefit from products and thus show differential levels of willingness-to-pay. The fundamental challenge facing the seller is, in the first step; the discovery of customers' true valuations of the product (information), and in the second step, the implementation of prices which accurately reflects individual customer valuations (organizational control). The economic principle of price elasticity leverage is based on a mechanism similar to price discrimination, but instead of utilizing customers' individual valuations of the product, price or price structure is adapted and optimized relative to aggregate levels of price elasticity in the focal market. The fundamental challenge facing the seller is, in the first step, the gen-

eration of aggregated and operational measures of price elasticity for a delimited market (information), and in the second step, the implementation of an optimal price structure relative to these measures (organizational control). Finally, the economic principle of operating leverage is based on the differential cost structure of firms and the possibility of adapting or optimizing price relative to these measures. The fundamental challenge facing the seller is, in the first step, the generation of accurate measures of product costs at relevant quantities (information), and in the second step, the implementation of an optimal price structure relative to these measures (organizational control).

Although presented separately and in an idealized fashion, the three principles are dependent on each other. As shown by the five studied cases, actual pricing policies involve a mix of the three principles where the outcome of one principle is affected by the workings of the other principles. For example; price discrimination based on a particular segmentation does not preclude effects of price elasticity- and operating leverage within each segment. Further, the complete profitability effects of a certain price or price schedule can only be determined by simultaneously considering price elasticity leverage (effects of price on quantity) and operating leverage (effects of quantity on profits).

The generic pricing policies corresponding to the economic principles outlined above are built on the deployment of specific pricing capability elements that provide the firm with information and/or organizational control. Hence, pricing policy is severely restricted by the level of informational input concerning individual customers' valuations of products, price elasticity, and product cost structure, and by the level of organizational control with which the seller is able to direct efforts towards price discrimination, price elasticity leverage, and operating leverage. In section 7.1.3, this was illustrated by the particular function each of the six identified capability elements played in the pricing process: (1) IT-based systems (provide, structure and disseminate information, enable a controlled structure that limits personal discretion), (2) Price parameters (enable a controlled structure that limits personal discretion), (3) Commercial organization (enable coordination and organizational control, enable aggregation and dissemination of information), (4) Pricing authority (enables coordination and organizational control), (5) Incentive controlling arrangement (enables organizational control

over personal pricing discretion), and (6) Commercial experience (enable detailed customer information). In other words, it is argued that each of the generic pricing policies outlined in this thesis are directly enabled by the endowment of pricing capability elements.

This study highlights both information and organizational control as fundamental and primary strategic dimensions, thus seeking to extend the mainstream notion of resources and capabilities beyond efficiency related “productive factors”. This is to a certain extent not a novel notion in strategic management. However, to the extent that these issues have been addressed within the RBV it has been from the perspective of posing supplementary conditions for the realization of other types of efficiency-related strategic advantages. For example, information has been highlighted as an important factor for identifying strategic resources (Makadok & Barney, 2001), and a well functioning organization has been suggested as a condition for valuable, rare, inimitable and non-substitutable resources to lead to sustained competitive advantage (Barney, 1994).

In addition to the RBV, the argument made above concerning the strategic relevance of appropriation factors and pricing capability has some additional theoretical antecedents that deserve further comment. Broadly speaking, these have in common that they address organizational and competitive issues from a perspective of bounded rationality and uncertainty. Hence, the notion of appropriation factors can be directly related to the behavioral theory of the firm and the notion of organizational slack (Cyert & March, 1963), the relationship between uncertainty and profits (Knight, 1921), and transaction cost theory (Williamson, 1975).

According to Cyert & March (see section 4.1.2), organizational slack consists of excess payments to economic actors that arise out of imperfections in the economic system (such as unreliable information, search costs, and frictions in the adaptation process). Hence, economic behavior based on incomplete information and limited rationality accumulates slacks of unclaimed surplus. From this perspective, investments in appropriation factors, such as pricing capability, constitute one way in which firms increase their ability to capture slacks of this particular nature. In line with the presentation in section 7.1-7.2, such ability builds

on: a) identifying the slacks (information), b) inducing proper behavior for capturing the slacks once identified (organizational control).

As discussed in section 4.2.3, the accumulation of slacks of unclaimed surplus in organizations and industries due to environmental conditions and limitations in economic agency is closely related to the concept of uncertainty. Knight's (1921) argument, that the uncertainty present in business decisions gives rise to residuals over (or under) factor payments, which are appropriable by economic actors that are willing to bear this uncertainty through the exercise of judgment, provides a theoretical perspective from which appropriation factors and pricing capability can be understood.

From this perspective, three basic types of price related uncertainties present the firm with particular opportunities and threats: the customer's willingness-to-pay, production costs, and employee and competitor behavior. By investing in pricing capability elements that allow the firm to secure sufficient information and organizational control, firms can turn these challenges into opportunities. Hence, in line with Knight's (1921) discussion of different methods for handling uncertainty<sup>55</sup>, the empirical study showed how units struggled with the classification of customers, products or business situations, which could be used as a basis for aggregating and systemizing what appeared as completely idiosyncratic situations. The barriers that prevented units from creating a valid classification of instances, which could be used as a basis of systemization, caused units to rely extensively on the commercial experience of individual employees or selected "pricing experts" for making the pricing-decision (both in terms of the type of information to be used in the decision and the decision itself). Hence, rather than consolidating and aggregating individual instances into systems, the studied units relied extensively on the informed, but unstructured, estimates of specialists. Through the experience of handling many similar pricing situations, they were expected to have accumulated the ability to make correct judgments. Naturally, and also in line with the basic argument of Knight (1921), this method of addressing uncertainty presented

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<sup>55</sup>Knight (1921) proposes two major methods (consolidation and specialization) and four complementary methods (control of the future, increased power of prediction, diffusion of consequences, and directing activity away from uncertainty). See section 4.2.3.

units with yet another challenge related to the incentive structures, authority and selection of individuals trusted to make pricing related decisions, thus partly changing the object of the uncertainty present in the pricing situation from (external) information to the level of organizational control that could be inserted into organizational and social arrangements.

On a last note regarding the antecedents of the theoretical argument put forward in this thesis, it is clearly the case that the notion of pricing capability, as an instance of a broader group of appropriation factors, can be linked to Williamson's (1975) organizational failures framework and transaction cost theory. As mentioned above, and discussed extensively in Chapter 4, the theoretical framework presented in this thesis is, like Williamson's (1975) organizational failures framework, built on the notions of bounded rationality, complexity, uncertainty, and the bargaining situations that follow from these human and environmental limitations of perfect competition. However, as is also clear from the treatment in this thesis, there are important differences in perspective. The argument posed in this thesis takes on a resource-based seller's perspective on the bargaining situation. Hence, rather than addressing the presence of bargaining and appropriation attempts as an inefficiency of the economic system (i.e. something that gives rise to transaction costs), this thesis highlights the strategic advantage that can be gained by systematically leveraging these types of situations based on superior information and organizational control enabled by heterogeneous and immobile appropriation factors.

The relationship between appropriation factors, information, organizational control and value appropriation (profits) that have been outlined in this section is illustrated in the appropriation factor framework in Figure 7.2.

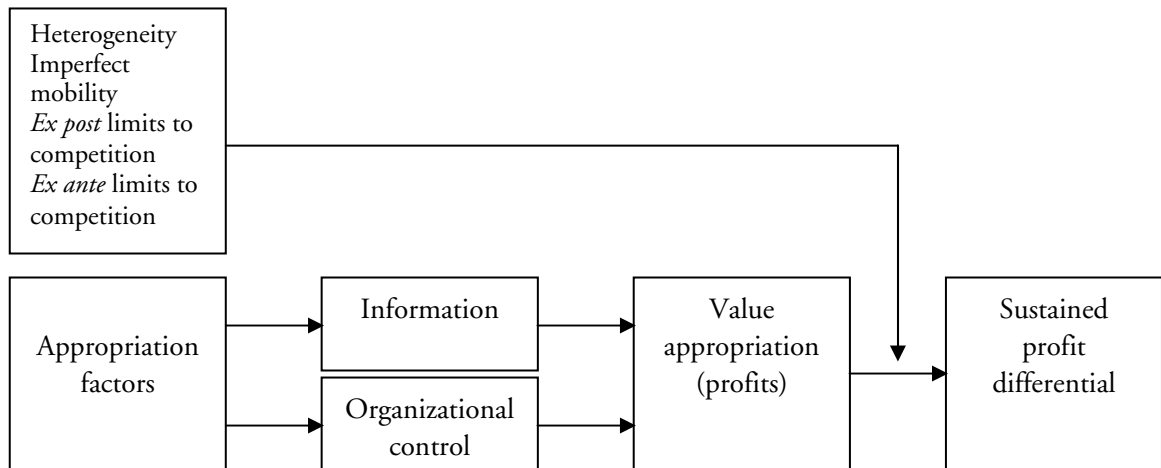


Figure 7.2 Appropriation factor framework.

### 7.3.3 Appropriation factors: Implication for strategic management theory

The understanding of a firm's ability to manage bargaining issues with customers or other economic actors to their advantage is severely limited in mainstream strategic management theory due to the lingering reminiscence of orthodox neoclassical assumptions regarding agency and the environment in which business decisions are made. The results of this thesis point to the need of broadening the scope of strategic management theory to include a new set of factors, internal to the firm, directed towards value appropriation (i.e. appropriation factors). Hence, it is suggested that sustained competitive advantage, based on the firm's resources and capabilities, not only be analyzed from the perspective of economic value created in terms of increased perceived benefit of products or lowered economic costs of production, but also based on the effects that particular resources and capabilities have on the firm's ability to generate *information* and *organizational control*, hence, the ability to appropriate economic value.

In Chapter 1, the RBV was contrasted with Porter's (1980) competitive forces framework. The comparison highlighted two dimensions on which contemporary modes of explaining firm performance could be contrasted; the main unit of analysis and the type of independent variable investigated (represented by industry and firm resources and capabilities), and the predicted type of performance effect and the type of dependent variable investigated (represented by value creation and



value appropriation). As shown in Figure 7.3, this produced four different positions (A-D): (A) industry level and efficiency-based explanations of firm performance (community driven value creation), (B) firm level and efficiency-based explanations of firm performance (RBV), (C) industry level and bargaining-based explanations of firm performance (competitive forces framework), and finally, (D) the position developed in this thesis of firm level and bargaining-based explanations of firm performance (appropriation factors). Hence, one important contribution of this thesis has been to clarify how value appropriation is affected by the firm's internal endowment of particular resources and capabilities termed appropriation factors.

	Industry	Firm resources & capabilities
Value creation	A. Community driven value creation	B. Resource-based view
Value appropriation	C. Competitive forces framework	<b>D. Appropriation factor framework</b>

Figure 7.3 Modes of explaining firm performance - revisited.

Viewing value appropriation as being at least partly driven by distinctly internal factors provides an important complement to established explanations of firm performance such as Porter's competitive forces framework or the RBV. The particular function of the concept of appropriation factors should be seen as providing a means of broadening the scope of strategic analysis to areas that have so far been overlooked by other types of explanations. To this end, the concept of pricing capability has throughout this thesis provided an example of one such area or phenomenon, which is scarcely, or not at all, captured by traditional explanations. Hence, the notion of appropriation factors should not primarily be seen as an attempt to question the relevance of the RBV, but rather to provide an extension of established theory that is applicable to a new set of phenomena. This is accomplished by expanding the traditional conception of resources in a new direction, which is genuinely sensitive to the fundamental consequences of bounded rationality and uncertainty on competition.

## 8. Conclusion

This chapter concludes the thesis with a summary of the theoretical contribution, a discussion of managerial implications, and suggestions for future research on the topic of pricing capability and value appropriation.

### 8.1 The theoretical contribution

The aim of the thesis, stated in section 1.3, is to *develop the concept of pricing capability and explore the mechanisms connecting such a capability with firm performance.*

As previously stated when outlining the theoretical problem of the thesis in Chapter 1, established explanations of firm performance fail to cover important research areas related to firm resources and capabilities and value appropriation. This presents a theoretical gap in mainstream strategic management research. The gap leaves established explanations of firm performance unable to elucidate important empirical phenomena such as pricing capability. The theoretical position adopted by the RBV and IO implies that pricing capability is not a strategically relevant factor in itself, but that prices are jointly determined by firm-level efficiency factors in the first step, and by industry-level bargaining factors in the second. This notion of firm pricing capability as a non-strategic factor is inconsistent with prior studies of pricing capability (see Dutta et al, 2003), and the notion that firms could be making consistently good or bad pricing decisions because of the organizational capability they have in place.

The theoretical gap briefly summarized above presents an opportunity for studying pricing capability as an instance of the broader issue of how value appropriation relates to factors internal to the firm. One important objective of this thesis is, thus, to show how resources and capabilities, such as pricing capability, can influence the extent to which firms are able to appropriate economic value. Illuminating this issue not

only provides increased understanding of the nature of pricing and the concept of pricing capability, but also outlines shortcomings of mainstream strategic management theory in explaining the relationship between firm resources and capabilities and value appropriation.

More specifically, the results presented in this thesis contribute to three related research areas: *strategic management*, *pricing*, and *organizational capabilities*.

***Strategic management.*** This thesis highlights limitations in mainstream strategic management theory regarding how it treats economic agency, and its consequences in terms of uncertainty. The failure to fully acknowledge uncertainty in business has led to an incomplete treatment of phenomena related to value appropriation and bargaining. Hence, the firm-level advantages that arise out of managing uncertainty better than rivals in terms of developing assets and routines that reduce uncertainty through superior *information* and *organizational control* is so far lacking in contemporary explanations of firm performance. In order to fill this gap, it is suggested that the scope of strategic management theory is broadened to include a new set of strategic factors, termed *appropriation factors*. The appropriation factor framework, presented in section 7.3.3, provides a complement to contemporary explanations of firm performance in the form of the RBV (Peteraf & Barney, 2003) and the competitive forces framework (Porter, 1980).

***Pricing.*** In line with prior empirical studies on pricing capability (i.e. Dutta et al, 2003), the results show that pricing constitutes an organizational capability built on particular types of *pricing capability elements* (section 7.2.3) being deployed in specific *pricing activities* (section 7.2.2) to accomplish a distinctive *pricing policy* (section 7.2.1). The results suggest that the prime function of pricing capability elements is to enable the information and organizational control needed for the execution of pricing activities and the implementation of pricing policy. The study identifies three generic pricing policies, each corresponding to a certain economic principle by which the pricing policy affects the level of appropriated economic value: *price discrimination*, *price elasticity leverage* and *operating leverage*.

Outlining the relationship between pricing capability elements, pricing activities, and pricing policy, constitutes a contribution to pricing re-

search. First, the framework provides an account of pricing as built on strategic investment in heterogeneous and immobile pricing capability elements. This contrasts with prior research in price management where pricing has been described as an important but more or less unconstrained activity (e.g. Dolan & Simon, 1996; Nagle & Holden, 2002; Monroe, 2003; Marn et al, 2004). Second, the framework also contrasts with established positions on pricing in strategic management where pricing has been described as an easily manageable component of the firm's overall competitive strategy (e.g. Porter, 1980), or as something being automatically determined by customer valuations and competition (e.g. Peteraf & Barney, 2003). Third, the framework's emphasis on information and organizational control provides an account of the strategic dimensions of pricing capability that, while consistent with the empirical results of prior studies (e.g. Dutta et al, 2003), adds theoretical comprehensiveness concerning the strategic relevance of pricing capability. Fourth, positing price discrimination, price elasticity leverage, and operating leverage, as the prime economic principles by which pricing policy affects the level of appropriated value (profits), integrates research on pricing policy (e.g. Noble & Gruca, 1999; Tellis, 1986) with established economic principles. This allows for a parsimonious account of the performance effects of pricing policy that is applicable across widely different pricing situations (such as industrial vs. consumer pricing and list vs. per sale pricing).

*Organizational capabilities.* The development of an integrative capability framework and its application to five empirical cases provides insights regarding the structure of organizational capabilities in terms of *capability elements*, *firm activities* and *desired ends* (policies/strategies). The integrative capability framework also synthesizes research on environmental interaction processes, which are highlighted by the concepts of *deployment* and *adaptation*, thus integrating the concept of organizational capabilities with other widely used concepts in strategic management, such as resources, routines, activities, competitive strategy, and industry structure (see section 2.3.2, Figure 2.2). This provides operational content to the concept of organizational capabilities and positions it relative to prior studies in both the cross-sectional (deployment) and longitudinal (adaptation) traditions in strategic management (see Porter, 1991).

## 8.2 Implications and applicability of the proposed framework

A general implication of this study is that investments in traditional productive factors and appropriation factors should be balanced against each other. This study directs attention to the fact that sustained advantages do not just involve beating competition in terms of efficiency, but also how well the firm is able to reap the benefits of its existing strengths and protect against the potentially detrimental effects of its weaknesses. This perspective is not novel in its emphasis on the strategizing efforts of firms. The novelty consists in how it couples strategizing with the notion of heterogeneous and immobile firm resources and capabilities. Hence, the appropriation factor framework developed in this thesis portrays resources and capabilities, referred to as appropriation factors, as being of direct and fundamental importance to successful strategizing. This suggests that firms planning to engage in strategizing activities should first consider their ability of doing so successfully by assessing their current endowment of appropriation factors. Secondly, this also suggests that firms that have been able to accumulate superior appropriation factors whose benefits are not subject to competitor duplication can earn sustainable above normal profits due to these appropriation factors.

In the area of price management, an important implication of this study is that firms should invest in pricing capability elements that provide sufficient information and organizational control to effectively manage the pricing process towards a desired pricing policy. This involves acquiring or developing pricing capability elements and pricing activities that support the particular pricing policy. The pricing capability framework developed in this thesis can provide an aid in this endeavor by helping managers diagnose their current pricing capability and identify means of improving it.

Figure 8.1 illustrates how a modified version of the pricing capability framework presented in section 7.1.4 can be used to diagnose the current level of firm pricing capability, and identify areas for improvement by comparison of current practices to desired properties of pricing policy, pricing activities, and pricing capability elements.

<b>Pricing policy (desired end)</b>	<b>Appropriated economic value/profits</b>		
	<b>Price</b>		
<b>Pricing activities</b>	<b>Price discrimination</b>	<b>Operating leverage</b>	<b>Price elasticity leverage</b>
	How does the pricing policy leverage the differential willingness-to-pay of customer segments?		
	How does the pricing policy leverage product costs and firm cost structure?		
<b>Pricing capability elements</b>	<b>Information &amp; Organizational control</b>		
	<b>Identified activities</b>		
	What are the key activities for enabling the pricing policy? <ul style="list-style-type: none"> <li>Negotiation</li> <li>Preliminary pricing decision</li> <li>Customer assessment</li> <li>Evaluation and planning</li> </ul>		
<b>Pricing capability elements</b>	What elements of human capital affect the execution of key pricing activities and the implementation of pricing policy?	<b>Identified capability elements</b> Commercial experience	<b>Identify complementary between elements</b>
	What elements of social capital affect the execution of key pricing activities and the implementation of pricing policy?	Commercial organization Pricing authority Incentive controlling arrangements	
	What elements of system capital affect the execution of key pricing activities and the implementation of pricing policy?	IT-based systems Price parameters	

Figure 8.1 Diagnosing and improving firm pricing capability.

*Pricing policy.* The concept of pricing policy refers to how a firm's prices vary over products, customers or time. This variation in a particular firm's pricing policy can be described by relating it to the differential willingness-to-pay of customer segments served by the firm, product costs and firm cost structure, and the aggregated levels of price elasticity facing the firm. As has been argued throughout this thesis, these three dimensions pose one way of describing differences between pricing policies as well as the economic principles by which pricing policy affects firm performance (appropriated value/profits). Hence, an important step in diagnosing a firm's pricing capability is to understand how its pricing policy relates to these three economic principles. A second step is to evaluate whether the current pricing policy is in fact optimal in terms of utilizing opportunities for price discrimination, and

leveraging the firm-specific cost structure and aggregated price elasticity.

*Pricing activities.* The concept of pricing activities refers to the set of actions taken within the firm to implement pricing policy. The study identified four pricing activities.

- *Evaluation and planning.* Refers to the firm's operational planning process and its assessment of factors relevant for the successful implementation of pricing policy.
- *Customer assessment.* Refers to the process by which the demands, willingness-to-pay and competitive situation of individual customers is assessed prior to the quotation and full specification of the order.
- *Preliminary pricing decision.* Refers to the process of deciding what price to put forth in the quotation.
- *Negotiation.* Refers to the interaction with the customer taking place after the first quotation until a final agreement has been made.

Pricing activities are the means by which a particular pricing policy is implemented. Thus, diagnosing pricing capability involves understanding which pricing activities are of key importance, both in terms of how the current process enables particular properties of pricing policy and what type of activities support properties of the desired pricing policy.

*Pricing capability elements.* The concept of pricing capability elements refers to single assets, routines or discrete bundles of assets and routines that cause variation in the execution of pricing activities and in the implementation of pricing policy. The study identified six types of pricing capability elements.

- *IT-based systems.* Refers to the computer applications (software/hardware) affecting the pricing process.
- *Price parameters.* Refers to the operational constructs used to guide or evaluate pricing decisions.
- *Commercial organization.* Refers to the overall functional and social structure within which pricing decisions are made.

- *Pricing authority.* Refers to the organizational level or function at which pricing decisions are made.
- *Incentive controlling arrangements.* Refers to organizational arrangements aimed at controlling or manipulating decision-makers' incentives with regard to price.
- *Commercial experience.* Refers to the commercially oriented personal knowledge or experience of key individuals.

Pricing capability elements constitute the fundamental source of heterogeneity and distinctiveness that enable a superior pricing capability in terms of elevated levels of information and organizational control. Thus, diagnosing a firm's pricing capability involves understanding what particular types of pricing capability elements that affect the execution of pricing activities and the implementation of pricing policy. This not only involves matching pricing capability elements with pricing activities and pricing policy, but also balancing the deployment of different types of elements against each other so that mutually complementary constellations of elements are accomplished.

The suggestions outlined above for diagnosing and improving firm pricing capability are subject to important reservations regarding the extent to which pricing policy, pricing activities, and pricing capability elements are individually and directly manageable. This study emphasizes the strong interrelationship between the three concepts, which make it difficult to significantly, and successfully, change pricing policy without simultaneously changing the firm's set-up of pricing activities and its endowment of pricing capability elements. Further, as discussed in section 7.3.1, pricing capability elements that are critical for a particularly profitable pricing policy are by definition likely to be scarce and subject to restrictions in their mobility, which would further limit the possibility of actively acquiring or developing a pricing capability based on these elements.

The conclusions arrived at above might seem discouraging to those aimed at establishing a sustained advantage over competitors based on the type of advice and tools that have been discussed in this thesis. This is rightly so, because no form of sustainable advantage over competitors can be created by the use of tools or techniques that are widely available across firms. However, this does not exclude the possibility of incre-



mentally improving pricing capability based on the type of recommendations developed in this thesis. This possibility is perhaps the most apparent for firms that lack a well-coordinated approach to pricing. In these cases, an evaluation of the firm's pricing capability might help solve coordination problems between pricing policy, pricing activities, and pricing capability elements, or point out deficiencies in the firm's set-up of pricing capability elements and the execution of pricing activities.

Diagnosing and improving firm pricing capability involves asking a certain set of questions related to the focal firm's current and desired pricing policy, pricing activities and pricing capability elements. Although the concepts and questions posed in Figure 8.1 are of relevance to firms in general, the answers to these questions are to be seen as firm-specific. Hence, the particular types of pricing policies, pricing activities, and pricing capability elements identified in this empirical study are by no means generic. These are included in the framework because they had a significant impact on pricing outcomes in the five studied cases. Based on this, it can be argued that it is likely they will have a similar effect for other firms operating under comparable conditions. However, as discussed in section 5.5.3, the aim of this study is not to generalize particular empirical observations made in the five studied cases to any wider population of firms or business units, but to refine and develop the concept of pricing capability and explore its relationship to firm performance.

### 8.3 Further research

The pricing capability framework and the general notion of appropriation factors outlined in this thesis present several avenues for future research.

First, the concept of appropriation factors (see section 7.3), which was developed in this thesis in order to understand the potentially strategic implications of resources and capabilities that are not directly addressed by the traditional RBV (e.g. pricing capability), requires further conceptual development and formalization. Other studies addressing similar topics have suggested that this might be accomplished by a formal integration of the RBV with transaction cost and property rights eco-

nomics (see Foss & Foss, 2004; 2005; Argyres & Mayer, 2007). Others have argued that further development of the RBV would be best served by keeping (and perhaps even reinforcing) its delimited attention to traditional productive resources and their rent earning capacity (Peteraf & Barney, 2003). This debate has so far not provided an answer to the question of how strategy scholars are to account for phenomena, such as pricing capability, which are unproductive in the sense that they do not increase the customer benefits of products sold nor decrease the economic cost of producing these products, but still exhibit characteristics of heterogeneity and immobility. Hopefully, a beginning of the answer to this question has been outlined in this thesis based on the concept of appropriation factors.

Beyond the theoretical issues discussed above, the more empirical question of to what extent value creation and value appropriation explain profit differentials also remains largely unanswered. Extending this line of reasoning, one might ask to what extent value appropriation is determined by the type of appropriation factors developed in this thesis and to what extent these outcomes are explained by external factors as suggested by Porter's (1980) competitive forces framework (the classical notion of industry structure determining the distribution of industry surplus). The question raised above highlights the need to formalize, operationalize, and test concepts and relationships suggested in this thesis.

Second, the concept of pricing capability has so far not been empirically explored to any great extent. With the exception of this, and the study by Dutta et al (2003), there are few empirical studies of pricing capability. This is particularly true concerning quantitative studies covering large samples of firms and studies of pricing capability spanning different types of industries and products.<sup>56</sup> Widening the scope of studies in these two directions would produce results that could be generalized to a broader set of firms and more directly demonstrate the magnitude of the effect of pricing capability on firm performance. One way to advance knowledge on pricing capability would be to directly test the framework set out in this thesis. This would involve investigating pricing capability's overall impact on firm performance relative to other

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<sup>56</sup>See Fabiani et al (2007) for one study of pricing practices across a large sample of European firms.

types of resources and capabilities, the impact on firm performance of individual pricing capability elements, how different constellations of capability elements affect performance, and how the fit between certain pricing capability elements, pricing activities and pricing policy affect firm performance.

On a final note, a promising area for future research is to extend the line of reasoning regarding pricing capability, and the wider notion of appropriation factors, to other functions within the firm. One such area is purchasing, or firm purchasing capability. To the same extent as firms bargain with customers in their product market in order to gain an advantageous distribution of surplus, firms also bargain with their suppliers. A better understanding of this process from the buyer's perspective might not only widen the appropriation factors framework developed in this thesis, but also provide a more realistic account of pricing capability where the customer is given a more active role in determining the distribution of surplus in market transactions.

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