

Tilburg University

Money for value

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Publication date:
2002

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):
Ingenbleek, P. T. M. (2002). *Money for value: Pricing from a resource-advantage perspective*. CentER, Center for Economic Research.

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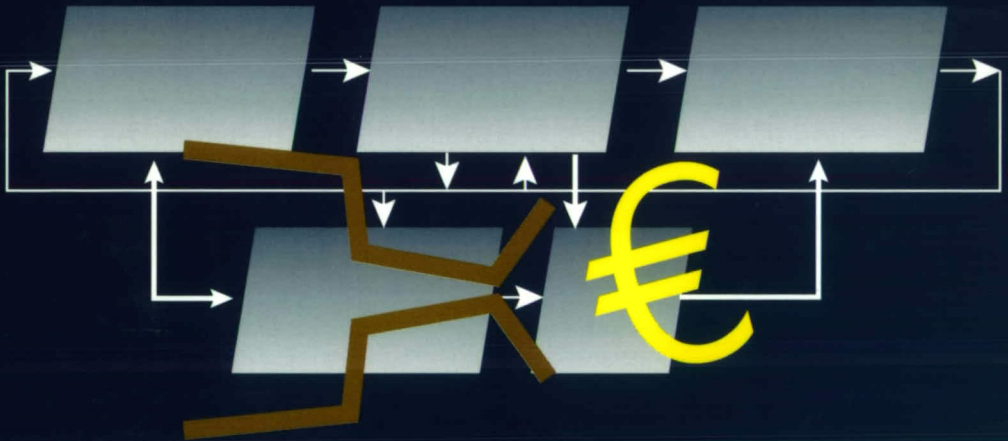
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CentER 

PAUL INGENBLEEK

Money for Value

Pricing from a Resource-Advantage Perspective





MONEY FOR VALUE

**PRICING FROM A RESOURCE-ADVANTAGE
PERSPECTIVE**



Money for Value
Pricing from a Resource-Advantage Perspective

Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit van Tilburg, op gezag van de rector magnificus Prof. Dr. F.A. van der Duyn Schouten, in het openbaar te verdedigen ten overstaan van een door het college voor promoties aangewezen commissie in de aula van de Universiteit op maandag 16 december 2002 om 14.15 uur door

Paulus Theodorus Maria Ingenbleek

geboren op 12 juni 1972 te Schijndel.

Promotores:

Prof. Dr. T.M.M. Verhallen

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Preface

At some point in time this thesis was intended to be about the topic of market information acquisition. After reading a pile of books and articles, throwing away ideas and entire papers, it was concluded that this topic was already sufficiently covered by Aguillar's (1967) thesis. For this and many other reasons, the topic was changed to pricing. This change in topic was a typical result of the collaboration with my thesis advisers Theo Verhallen and Ruud Frambach. Our brainstorm sessions and discussions were always informal, surprising, down to earth, and inspiring, and never rushed, over-theorized, or limited to professional matters. Although at first sight the topic seemed illogical, our first discussion on pricing raised many interesting issues that were closely related to our fields of interest. It became clear that we would focus our attention on the topics that go beyond the mainstream pricing literature, and that are closely related to the topics of strategy and market orientation. In short, firms try to create value to customers in the form of better products and services than their competitors offer, but how do they get money in return for the value they deliver?

The change of topic boosted the process in the right direction. The response of Marion Debruyne to my request of getting a glimpse on her pricing data of industrial firms, resulted in a joint project. After a relatively short period of time, I was able to present the first results to my colleagues at Tilburg University. The marketing group in Tilburg has established a stimulating research climate that strongly affected my development as a researcher. The discussions I had with several of them on the statistical problems I encountered, did not only raise solutions but also increased my insights. Although the project was presented in a preliminary stage, it rapidly increased the quality of our first paper. It was presented only two months later at the Fordham University pricing conference. The paper gave rise to discussions with Shelby Hunt (who is a key proponent in the theoretical perspective obtained in this thesis), and with business managers, like Joost Krul whose stories connected the theory to practice in a lively way. Experiences with this first project were captured in a research proposal. The honorary mention that this proposal received from Fordham's doctoral dissertation proposal competition on pricing, motivated to continue.

After this period of rapid progress, the process reached a peak in a major data collection that turned out to be a joint project of Tilburg University, Vrije Universiteit in Amsterdam, and research company Heliview. Related to this data collection, we organized a seminar for a business audience at Tilburg University in the fall of 2001. The responses of the management audience and the media attention convinced us about the

practical relevance of our study. I like to thank Heliview for their support, in particular Ton Ketelaars, Harrie van Elderen, and Olaf Crutzen. I appreciate the support of Heidi van den Borne in organizing the seminar.

The process has now reached its final stage. The defense committee consists of professors Els Gijsbrechts, Jean-Francois Hennart, Erik-Jan Hultink, Jaideep Prabhu, and Jan-Benedict Steenkamp. I appreciate their willingness to participate. While trying to answer their questions, I will feel supported by my two “paranimfs”: my former office-mate and new colleague, Erica van Herpen, and my brother Jan-Willem. I thank the CentER research school for providing me with the necessary conditions, including the education program during the first two years (in particular Rik Pieters impressed me with his marketing course) and I look forward to my jobs in The Hague and Wageningen.

When Aguillar (1967) had finished his thesis, he dedicated it to his parents and all other inspiring and inspired teachers in his life. Although it seems a bit silly to thank your parents with something useless as a thesis, in stead of something nice like a bottle of good wine and a bouquet of flowers, it does make sense to acknowledge the fact that many people contributed indirectly to the fact that I was able to write this thesis, in particular my family, my friends, and Sander. In short, I wish to thank everybody who helped, inspired or contributed otherwise.

October 2002,

Paul Ingenbleek.

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Chapter 1:

Introduction:

Pricing and Resource-Advantage Theory

'...the study of pricing strategy puts a researcher in a unique position, having the opportunity to study questions of immense practical importance while remaining on the forefront between the economic and behavioral science.'

Timothy M. Devinney, 1988.

1. PROBLEM STATEMENT

Since the 1980s, structural changes take place in the business environment, like increased competition, shortened product lifecycles, better informed and more demanding customers, globalization, discontinuous technological progress including applications of information technology (Jones 1996). As a consequence, many organizations attempt to set themselves apart from competition by creating customer value: offering unique benefits to the customer in market offerings. Differentiation strategies as opposed to cost leadership strategies (Porter 1980) have become widespread in strategic marketing plans of firms (Ingenbleek, Frambach, and Verhallen 2000). Supported by studies from the Profit Index of Marketing Strategies (PIMS) database on a positive relationship between product quality and performance (Buzzell and Gale 1987), total quality management became increasingly popular throughout the 1980s (Day 1994; Griffin and Hauser 1993). In this spirit, Hunt and Duhan (2002, p. 97) argue that it has become conventional wisdom for businesses to strive for market offerings that offer more customer value than competitors do. "In this view "more customer value" means "perceived by some market segment(s) to be worth more"."¹

However, creating and delivering customer value is only half of the job. Determining what to ask in return is the other half. As Day (2000, p. 24) notes: "Central to every market relationship is an exchange process where value is given and received. Even in

¹ In this view, customer value doesn't include price as it does in many definitions from a customer's point of view (Woodfruff 1997; Zeithaml 1988).

the most tenuous and short-lived “relationship,” each side of the dyad gives something in return for a benefit or payoff of greater value.” Striving for market offerings that are perceived by customers to be worth more implies that what is asked in return also should be worth more in order to be rewarded for all efforts in the creation of customer value. In other words: a strategy in which the firm sets out to deliver superior customer value is profitable only if the firm is able to successfully determine a price that customers are willing to pay in return. To this respect, Monroe (1990) notes that pricing is of increasing importance in the changing business environment. The managerial relevance can be outlined by six additional reasons.

First, managers find pricing important. Several studies have collected managers’ importance ratings on pricing issues compared with other marketing issues. Generally, this evidence continuously shows high importance ratings for pricing (Frambach, Nijssen and Van Heddegem 1997; Hooley, West and Lynch 1984; Myers 1997; Pass 1971; Robicheaux 1975; Samiee 1987; Udell 1964; 1968). To illustrate, Figure 1.1 reports managers’ assessments of pricing from an online management survey in which 95 managers of Dutch firms participated.¹ In line with the results of extant research, managers generally perceive pricing as important. However, the key question here is why they find pricing important? From a perspective of creating customer value, the answer would simply be: because they have something at stake, namely their efforts in creating customer value. This would explain why many managers perceive pricing as risky according to Figure 1.1.

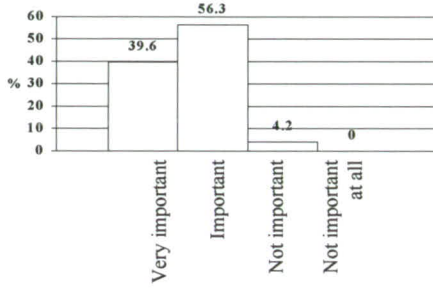
Second, pricing may have severe consequences when mistakes are made. A lot of anecdotal evidence points at consequences of pricing mistakes that often go beyond the short-term financial implications for firms, like long-run loss of market share, or a decrease of an entire industry’s profitability (Simon 1992). The latter occurred for instance when Japanese electronics firms introduced their first CD-players to the market. Although superior to alternatives, they charged considerably lower prices than the market leader thereby lowering the profitability of the entire industry. For this reason price has been called a “**dangerously explosive variable**” (Oxenfeldt 1973, p. 48). As found in Tellis’ (1988) meta-analysis: a certain percentage price change has a **ten to twenty times stronger effect on sales than the same percentage in advertising outlays**.

Third, managers find pricing difficult. Dolan and Simon (1996) mention a recent survey showing that marketing managers perceive pricing as the most difficult marketing decision. The results presented in Figure 1.1 confirm this finding. Why do

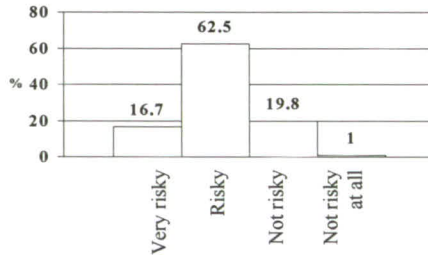
¹ This survey is carried out by Ondernemerspeil.nl. 600 firms were contacted of which 108 responded (18 %). 13 respondents didn’t complete the questionnaire, leading to 95 usable questionnaires. 68% of the respondents’ firms has 1-10 employees, 22% has 10-50 employees, and 10% more than 50; 74% are service firms, 7% manufacturers, 19% other.

FIGURE 1.1
Managers' Assessments of Pricing

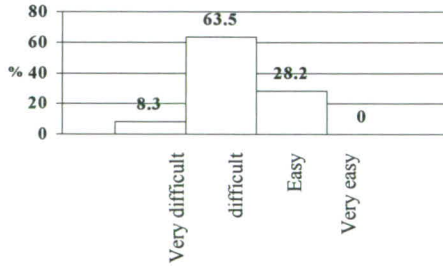
How do you assess the importance of pricing as compared to other marketing decisions? (n = 95)



How do you assess the risk of pricing? (n = 95)



How do you assess the difficulty of pricing as compared to other marketing decisions? (n = 95)



they find it difficult? Certainly, in decisions where so much is at stake and that may have so many unintended negative consequences, a thorough understanding of the often complex situations and continuous monitoring of decision outcomes is required. For this reason, pricing is often organized as a group process that involves multiple business functions (Ingenbleek, Frambach, and Verhallen 2001).

Fourth, managers find academic research on pricing of little practical help. The gap between academic pricing research and the actual practices by which organizations arrive at selling prices, is already pointed at for more than six decades (Bonoma, Crittenden and Dolan 1988; Cressman 1999; Diamantopoulos 1991; Fog 1960; Hall and Hitch 1939; Monroe and Mazumdar 1988; Noble and Gruca 1999b; Oxenfeldt 1973). As the years of publication in these references indicate, little progress has been made to bridge this gap during this period of time.

The argument that managers are simply not interested in academic research however would not be fair. Related to the data collection on behalf of chapters 4 and 5 of this thesis, a seminar was organized in the fall of 2001 at which the preliminary results of these and other studies were presented to a business audience. The seminar was visited by nearly 100 senior managers from a rich variety of companies. The practical relevance of the research presented at the seminar was widely acknowledged by national newspapers and business press (Adformatie 2001; Automatie 2001; Bosveld 2001; Brabants Dagblad 2001; Constructeur 2001; Liesker 2001; Management Control & Accounting 2001; Management Team 2001; Marketing Actueel 2001; Marketingonline 2001a; 2001b; Tijdschrift Controlling 2001; Van de Velde 2001).

Fifth, and related to the previous point, marketing textbooks on pricing are hardly underpinned with academic research on organizational practice (e.g. Dolan and Simon 1996; Fletcher and Russell-Jones 1997; Nagle and Holden 1995). Notwithstanding that pricing textbooks might be helpful tools to improve price decisions, only few ideas are theoretically and empirically grounded in organizational research on pricing.

Sixth, pricing is of high importance to society and public policy (Grewal and Compeau 1999). Of all marketing variables price is probably the most criticized by forces in society and perhaps most restricted by legislation. As indicated by a recent example of a sharp increase in European oil prices, wrong prices can not only seriously harm a corporate image, but also lead to social unrest and immobilize economic life (NRC Handelsblad 2000).

Whereas much attention has focussed on how firms can create customer value in products and services, little is known about how they can successfully determine a price. As Cressman (1999, p. 456) formulates it: "How is it possible that we advocate managers adopt a market orientation, but the literature fails to link pricing practices

with the drivers of customer needs? If pricing practice is seen as the means through which managers “harvest” the “seeds” planted in a market-oriented strategy process, why are there no pricing practices based on the value delivered to customers in the marketing literature?”

This thesis deals with the question how organizations successfully can determine the price that they ask in return for the customer value they offer? In this chapter, first the background of this question in academic literature is discussed, including strategy and marketing literature on creating customer value, pricing literature in marketing, and literature on pricing practices. This section will conclude with a discussion of the remaining gaps in this literature. Second, the theoretical perspective of the thesis is introduced. It is argued that a perspective derived from resource-advantage theory (Hunt and Morgan 1995) provides the opportunity to develop a perspective on pricing that can overcome the major gaps indicated in the literature review. Finally, the structure of the rest of the thesis is discussed, including the contributions of the subsequent chapters.

2. BACKGROUND

This section first discusses the role of pricing in marketing and strategy literature on the creation of customer value. Next, a brief overview of pricing literature in marketing is presented, followed by a discussion of the literature on pricing practices. This section concludes with a discussion of the major gaps in these literatures with respect to the question how organizations successfully can determine the price that they ask in return for the customer value they offer.

2.1 Pricing in Perspectives on Creating Customer Value

The creation of customer value received increasingly attention in strategy and marketing literatures since the 1980s. This literature can be grouped in (1) strategy literature based on industrial economics, (2) strategy literature based on the resource-based view of the firm, and (3) marketing strategy literature. These perspectives will be briefly discussed here and it will be outlined how they pay respect to pricing.

Strategy literature based on industrial economics essentially suggests that industry structure determines conduct, which determines business performance. Performance is thus a consequence of industry choice and the firm’s efforts to change industry structure, like raising entry barriers (e.g. Porter 1980; 1985). Within an industry firms should chose one of three generic strategies: differentiation (delivering industry-wide unique benefits), cost leadership (offering industry-wide lower prices) or focus (delivering unique benefits tailored for a specific market segment). The chosen

strategy is given shape by coordinating the activities of business functions like logistics, production and marketing in the value chain (Porter 1985).

Porter's (1980;1985) work stresses a relationship between value, benefits and price levels. If value is defined as "what buyers are willing to pay", then "superior value stems from offering lower prices than competitors for equivalent benefits or providing unique benefits that more than offset a higher price" (Porter 1985, 4). As such, this view actually explains relative price levels. Related to this, it formulates several normative pricing strategies (Porter 1985). However, it offers no answer to the questions how firms can and should arrive at price decisions.

In contrast to the external emphasis of industrial economics, the resource-based view of the firm suggests that strategy and performance are consequences of a firm's tangible and intangible resources (e.g. Dierickx and Cool 1989; Penrose 1959; Wernerfelt 1984). Resources may include for instance machinery, distribution channels, R&D capabilities, and specific skills. The resource-based view suggests that resources are imperfectly mobile and heterogeneous, meaning that each firm has a unique assortment of resources that can't always be bought or sold in the market (Hunt and Lambe 2000). A typical example of an imperfectly mobile resource, is a competence: "an ability to sustain the coordinated deployment of assets in a way that help the firm achieve its goals" (Sanchez, Heene, and Thomas 1996, p. 8). Day (1994, p. 38) emphasizes the complex nature of competencies as "complex bundles of skills and collective learning, exercised through organizational processes, that ensure superior coordination of functional activities." The competence-based view emphasizes that firms have a core competence that is rooted in the culture of an organization and that is therefore difficult to imitate by competitors. A core competence enables an organization to create value in different market offerings and product lines and thus provides access to a variety of markets (Hamel and Prahalad 1994).

Until recently the resource-based view provided no link with price or pricing. Recently, Dutta, Zbaracki, and Bergen (2001) study pricing as a competence in a single case study.¹ They stress that pricing requires a combination of knowledge, skills and routines in order to extract value from customers. Along investments in the resources that create value, firms should invest in resources that enable pricing. This observation however leaves many questions unanswered, like: How a pricing competence can be developed? Which pricing practices are important? How pricing competences relate to competences that coordinate the creation of value?, etc.

¹ Specifically, Dutta, Zbaracki, and Bergen (2001) use the term "capability". Here, I adopt the nomenclature of Sanchez, Heene, and Thomas (1996) that is developed to overcome the inconsistent terminology in competence-based literature. From this perspective pricing is a competence (see chapter 2).

In marketing, there is considerable attention of academic research focussing on the resources that enable a firm to create customer value. Grounded in the marketing concept (Drucker 1954; Levitt 1960; MacKitterick 1957), this literature is according to Slater (1997, p. 162) developing into a “customer value-based theory of the firm.” It includes literature on market orientation (Deshpandé and Farley 1998; Frambach, Verhallen and Roest 1995; Gatignon and Xuereb 1997; Han, Kim, and Srivastava 1998; Hurley and Hult 1998; Jaworski and Kohli 1993; 1996; Kohli and Jaworski 1990; Matsuno and Mentzer 2000; Narver and Slater 1990; Pelham and Wilson 1995; Ruekert 1992; Shapiro 1988; Slater and Narver 1994; 1998; Voss and Giraud Voss 2000), organizational culture (Deshpandé and Webster 1989; Deshpandé, Farley, and Webster 1993; Homburg and Pflesser 2000), organizational learning from markets (Adams, Day, and Dougherty 1998; Day 1991; Dickson 1992; McKee 1992; O’Connor 1998; Sinkula 1994; Sinkula, Baker, and Noordewier 1997; Slater and Narver 1995), organizational market information processes (Day and Nedungadi 1994; Lynn, Simpson and Souder 1997; Lynn, Skov, and Abel 1999; Maltz and Kohli 1996; Moorman 1995; Moorman and Miner 1998; Moorman and Slotegraaf 1999; Ottum and Moore 1997; Slater and Narver 2000), market-related competences (Day 1994; Ingenbleek, Frambach and Verhallen 2000), knowledge (Menon and Varadarajan 1992; Moorman and Miner 1997), and relationships in strategic networks (Geyskens, Steenkamp, and Kumar 1998; Morgan and Hunt 1994; Webster 1992).

The ideas from this stream of literature are applied to a variety of topics in marketing literature including the organization of the marketing function (Homburg, Workman and Jensen 2000; Homburg, Workman and Krohmer 1999; Moorman and Rust 1999; Webster 1992; Workman, Homburg and Gruner 1998), sales (Siguaw, Brown and Widing 1994), new product development (Atuahene-Gima 1995; Workman 1993), entry barriers (Han, Kim and Kim 2001), market segmentation (Verhallen, Frambach and Prabhu 1998) and marketing channels (Siguaw, Simpson and Baker 1998). So far, pricing received scant attention in this literature. Some authors briefly touch the topic. Day (1994) suggests that pricing is an organizational process that is influenced by the firm’s competencies. Day and Nedungadi (1994) find congruence between customer and competitor orientations of firms, and the customer and competitor dimensions expressed in prices.

In summary, price received scant attention in literature on the creation of customer value. Porter (1985) argues that creating higher benefits to customers than competitors do, results in higher prices than competitors ask. The resource-based view of the firm only recently acknowledges pricing as an organizational competence (Dutta, Zbaracki, and Bergen 2001), which implies that organizations may have combinations of skills, knowledge, and routines that makes them better, equal or worse in pricing compared to competitors. In line with this observation, marketing strategy literature has briefly

described pricing as an organizational process that is influenced by a firm's competencies (Day 1994) and strategic orientation (Day and Nedungadi 1994).

2.2 Pricing Literature in Marketing

Pricing literature in marketing has focussed predominantly on normative pricing models and consumers' perceptions of price and value. Normative pricing models solve problems of what price decisions managers should take when faced with certain situations. Since Monroe and Della Bitta's (1978) critical review of this type of studies, this literature has made considerable progress in developing decision models for a multitude of situations (see for instance Gijsbrechts 1993; Monroe and Mazumdar 1988). An important contribution to this literature is Tellis' (1986) unifying taxonomy of pricing strategies. Tellis organizes pricing strategies as they emerge from normative pricing models in an integrative framework. The taxonomy of pricing strategies is based on two dimensions: the objective of the firm and the characteristics of consumers (see Table 1.1). Objectives refer to what the firm wants to achieve with its pricing strategy, given the overall objective of profit maximization. Characteristics of the consumers refer to differences in search costs, reservation prices and transaction costs. Depending on the firm's objective and consumer characteristics, the firm may opt for a specific pricing strategy (for a more elaborated discussion of these strategies, their relationships and the circumstances under which they are optimal, see the original article).

TABLE 1.1
Taxonomy of Pricing Strategies

Characteristics of Consumers	Objective of Firm		
	Vary Prices Among Consumer Segments	Exploit Competitive Position	Balance Pricing Over Product Line
Some have high search costs	Random discounting	Price signaling	Image pricing
Some have low reservation price	Periodic discounting	Penetration pricing Experience curve pricing	Price bundling Premium pricing
All have special transaction costs	Second market discounting	Geographic pricing	Complementary pricing

Derived from Tellis (1986).

Pricing literature from a consumer perspective examines consumers' perceptions of value and price (see Gijsbrechts 1993 for an overview). An important contribution of this literature is that it has extended the concept of price. Traditionally, pricing literature takes a narrow perspective on price, as in Simon's definition (1989, p. 1): "The price of a product or service is the number of monetary units a customer has to pay to receive one unit of that product or service." Marketing literature however increasingly advocates a broader definition of price (Gijsbrechts 1993). Zeithaml (1988, p. 10) argues for instance that: "From the consumer's point of view, price is

what is given up or sacrificed to obtain a product.” Simply stated, this literature argues that purchase intention is a consequence of perceived value, which is a trade-off between perceived quality of a market offering and perceived sacrifices to obtain this offering. Paying a monetary price is only one sacrifice, conditions of payment, transportation costs, and costs of information seeking may be others.

Much less attention has focussed on how firms arrive at price settings and what they should do in order to arrive at successful price settings. The advice of marketing literature is essentially to systematically analyze all relevant factors before a price decision is made (Dolan 1995; Monroe 1990; Nagle and Holden 1995; Oxenfeldt 1973). However, as will be discussed in the next section, relatively few theoretical or empirical contributions focus on the pricing practices that lead to price decisions.

2.3 Literature on Pricing Practices

Main stream pricing literature builds strongly on neo-classical economics and suggests that firms arrive at selling prices by estimating customers’ price elasticity and competitors’ prices and set prices to maximize profits (e.g. Pashigan 1998). Although economic literature is often criticized for a lack of realism in describing how price decisions are made in business (e.g. Diamantopoulos 1991; Hall and Hitch 1939; Monroe and Della Bitta 1978; Oxenfeldt 1973), according to Nagle (1984, p. S3) economics doesn’t claim to offer a realistic description of how price decisions are made in firms: “Yet, if one approaches economics expecting too much, one may well come away with too little. Economic models are not designed to describe realistically the way firms make pricing decisions...” Rather, economists “claim to explain why certain decisions persist.”¹

Dissatisfied with main stream economics as a way to describe how price decisions are made in organizations, various disciplines contribute to descriptions of organizational pricing practices, including marketing, management, accounting, and economics (see Diamantopoulos 1991 for a review). This literature originates with the work of Hall and Hitch (1939), who concluded on the basis of 38 interviews that many firms arrive at price decisions by calculating a cost price from which is deviated by either a predetermined profit margin (as in cost-plus pricing), or -more frequently- a profit margin that is based on information other than costs. Hall and Hitch’s (1939) finding implies that firms are no profit maximizers. This finding gave rise to empirical studies on pricing objectives, showing that firms may have multiple pricing objectives at one point in time (Diamantopoulos and Mathews 1994; Shipley 1981), that they may change over time (Shipley 1981), and that they partly depend on the stage of market evolution, firm size, and market turbulence (Jobber and Hooley 1987). Another group

¹ Others follow a stricter approach to economics suggesting that firms should behave the way neoclassical economics describes. Urbany (2000) for example studies the barriers that prevent firms from behaving the way it is described by economics.

of studies has examined the importance of price compared to other elements of the marketing mix, price decision authority, and the practices used to arrive at price decisions, such as cost-based, competition-based, and value-based pricing (e.g. Coe 1990; Udell 1964; 1968; 1972). These studies generally show that price is perceived by managers as one of the most important elements after product quality and that the authority of pricing is in hands of the general manager or marketing manager (e.g. Abratt and Pitt 1985; Piercy 1981; Samiee 1987). Findings on the frequency of pricing practices are however mixed (see also chapter 2). Finally, several researchers focus on specific case descriptions in which pricing is described as an organizational decision processes consisting of organizational routines (e.g. Farley, Hulbert, and Weinstein 1980; Hague 1971).

2.4 Gaps in the Literature on Pricing Practices

Pricing and marketing literature lack a theoretical perspective on pricing as it occurs in business, that meets four criteria: (1) it pays respect to the complexity of pricing; (2) it is connected with other perspectives on pricing; (3) it offers normative statements about the success of pricing practices; and (4) it relates pricing to the creation of customer value.

First, the lack of a theoretical perspective that pays respect to the complexity of pricing in business, is regularly emphasized in pricing literature (see Table 1.2). Although the publication of Hall and Hitch's article received a lot of attention, it had little impact on main stream pricing literature. This led Oxenfeldt (1973, p. 48) to speak of what he calls "The gap between pricing theory and application." In particular, Oxenfeldt asks attention for pricing as an organizational decision process. He claims that the practice of such an organizational process is far more complex than the problems described in academic literature. In similar words also Rao (1984) and Bonoma, Crittenden and Dolan (1988) expressed this gap in pricing literature. Monroe and Della Bitta (1978) ascribe the gap between theory and practice among others to the lack of realism in economic theory. Monroe and Mazumdar (1988) call for this reason for **multidisciplinary research on pricing**. Qualitative case studies on pricing however lack a strong theoretical perspective (e.g. Bonoma, Crittenden, and Dolan 1988; Farley, Howard, and Hulbert 1971; Hague 1971; Wentz 1966). While discussing Tellis' (1986) **integrative framework of pricing strategies**, Gijsbrechts (1993) remarks that it offers no guidance on how to arrive at successful price decisions in complex situations. The same critique is found in Cressman's (1999) commentary to Noble and Gruca's (1999a) article, in which the authors apply Tellis' framework to an industrial context. Noble and Gruca (1999b) share Cressman's critique to this respect and call for more research on the organizational practice of pricing. Finally, Diamantopoulos (1991, p. 166) concludes from his literature review "that pricing in the real world is *much* more complex than *any* theoretical perspective suggests." (Italics in original).

TABLE 1.2**Selection of Reviews of and Critical Comments on Pricing Literature**

Hall and Hitch (1939, p. 12)	“The purpose of this paper is to examine, in the light of interviews, the way in which business men decide what price to charge for their products and what output to produce. It casts doubt on the general applicability of the conventional analysis of price and output policy in terms of marginal cost and marginal revenue, and suggests a mode of entrepreneurial behavior which current economic doctrine tends to ignore.”
Oxenfeldt (1973, p. 48)	“Research continues on how business should set prices. Most of these studies attempt to uncover the best methods rather than those in current practice. No researcher has completely overcome the enormous difficulties of learning the basis on which group decisions are made and the “sensitive” reasons underlying many price decisions. ... The current pricing literature has produced few new insights or exciting new approaches that would interest most businessmen enough to change their present methods.”
Monroe and Della Bitta (1978, p. 413)	“Two reasons for this lack of creative development of new approaches to solving marketing problems are: (1) for some time the economists’ theory has dominated despite the lack of realism in the theoretical structure and (2) until recent environmental changes, the seller’s problem was not price but rather demand stimulation.”
Rao (1984, p. S40)	“Even though theoretical research on price setting is sparse, there does not seem to be a dearth of advice given to practitioners. ... These ideas are too general, lack theoretical foundation, and are hard to implement.”
Monroe and Mazumdar (1988, p. 386)	“Pricing necessarily must incorporate information, assumptions, and methods from the areas of economics, marketing, psychology, sociology, finance, accounting, and other disciplines as relevant to the issues under scrutiny. To continue a single discipline orientation when the area is multidisciplinary in nature is folly and doomed to fail.”
Bonoma, Crittenden and Dolan (1988, p.337)	“The gap between managers’ concerns and academics’ research is often recognized, bemoaned and blamed on one party by the other.”
Diamantopoulos (1991, p. 121)	“The diversity of theoretical approaches can partly be attributed to the shortcomings of conventional price theory but also, more importantly, to the complexity of the problem under investigation, ...”
Gijbsbrechts (1993, p. 117)	On Tellis (1986): “As a conceptual framework, it does not provide managers with practical guidelines. In real life, a manager may find himself in different “cells” at the same time, and face the problem of combining various principles into one set of pricing rules.”
Cressman (1999, p. 456)	“How is it possible that we advocate managers adopt a market orientation, but the literature fails to link pricing practices with the drivers of customer needs? If pricing practice is seen as the means through which managers “harvest” the “seeds” planted in a market-oriented strategy process, why are there no pricing practices based on the value delivered to customers in the marketing literature?”
Noble and Gruca (1999b, p. 459)	“Research on successful pricing process should be a major priority for future research. In such a research endeavor, the definitions of customer value and value-based pricing should be clear enough to avoid the potential for confusion between academic and practitioner users of the results.”

Second, the body of knowledge on pricing practices is fragmented to a large degree and disintegrated with other fields of pricing literature. Contributions on pricing practices weakly build on each other's insights (see also chapter 2). A great deal of qualitative research has focussed on describing complex but unique pricing situations (e.g. Bonoma, Crittenden, and Dolan 1988; Farley, Howard, and Hulbert 1971; Hague 1971; Wentz 1966). Monroe and Mazumdar (1988), as well as Bonoma, Crittenden, and Dolan (1988) call for even more situation-specific descriptive research. This type of studies is however unlikely to produce insights that will contribute to a more general theoretical perspective on pricing that explains and incorporates the complexity of the issue under investigation. In addition, a theory on pricing practice from a firm perspective would have to provide links with other streams of pricing research, in particular those that build on economics or consumer behavior literature. In order to do so, it should map the decision areas that managers cope with and establish links with the types of research that may be helpful to firms facing these situations.

Third, possibly because of its strong rejection of economics as a way to describe pricing in organizational practice (e.g. Hall and Hitch 1939; Udell 1964), literature on pricing practices offers no normative statements on the success of pricing practices. In the same line, Noble and Gruca (1999b) call for more research on the *success* of pricing practices (see also Table 1.2). Also Diamantopoulos (1991) recognizes a separation in perspectives on pricing from a firm's point of view between those that include normative statements but lack realism, and those that overcome the lack of realism but lack normative statements. As a consequence, empirical research on pricing practices is generally descriptive, including quantitative studies that are generally limited to descriptive statistics (Diamantopoulos 1991).

Fourth, and related to a lack of normative theory on pricing practices, literature on pricing practices provides no link with the creation of customer value even though strategic marketing literature generally acknowledges the importance of creating customer value for business performance (see for instance Slater 1997). In this line Cressman (1999) questioned why literature doesn't provide research on pricing practices that enable firms to take "money for value": the financial rewards for creating customer value (see also Table 1.2). A link that is also missing in the literature on creating customer value.

In the next section, a theoretical perspective will be introduced that promises to provide a basis to overcome these deficiencies.

3. THEORETICAL APPROACH

This thesis approaches pricing from the perspective of resource-advantage theory. In their first publication on resource-advantage theory, Hunt and Morgan (1995, p. 1) argue that: “Three recent streams of research portend major changes in marketing theory and practice: works addressing strategic issues in marketing theory and research (Aaker 1988; Bharadwaj, Varadarajan, and Fahy 1993; Day and Wensley 1988; McKee, Varadarajan and Pride 1989), those advocating a market orientation for superior firm performance (Day 1984; Day and Nedungadi 1994; Kohli and Jaworski 1990; Narver and Slater 1990; Shapiro 1988; Webster 1994), and those emphasizing the desirability of relationship marketing in strategic network competition (Berry and Parasuraman 1991; Dwyer, Schurr, and Oh 1987; Morgan and Hunt 1994; Parvatiyar, Sheth and Whittington 1992; Thorelli 1986; Webster 1992).” Hunt and Morgan’s “central thesis” is that strategic marketing literature “is evolving towards a new theory of competition.” They label this theory “resource-advantage theory of competition” or “The comparative advantage theory of competition” (hereafter abbreviated as R-A theory).

R-A theory should be seen as a theory in development, with the final goal to develop into a general theory of competition (Hunt 2000a). The main ideas from R-A theory were first published in an article in *Journal of Marketing* (Hunt and Morgan 1995). Based on the ideas in this article, several aspects of the theory are elaborated upon or commented in subsequent articles (Hunt 1995; 1997a; 1997b; 1997c; 1998; 1999; 2000c; 2001; Hunt and Arnett 2001; Hunt and Duhan 2002; Hunt and Lambe 2000) a book (Hunt 2000a), commentaries on the theory (Deligönül and Çavusgil 1997; Dickson 1996; Foss 2000; Savitt 2000), and reactions to those commentaries (Hunt 2000b; Hunt and Morgan 1996; 1997). In the following, first the foundational premises of R-A theory are briefly presented, followed by a glimpse on its background and an overview of its major ideas. Next, it is discussed how R-A theory promises to offer a perspective that will help to overcome the gaps in literature on pricing practices as outlined previously.

3.1 Foundational Premises

R-A theory can be contrasted with perfect competition theory in the sense that its foundational premises are different (see Table 1.3). Although economists often weaken the original assumptions of perfect competition theory in their work (Foss 2000), the only alternative theory of competition that has explicated its foundational premises is R-A theory (Hunt 2000b). However, R-A theory doesn’t reject perfect competition theory, it incorporates perfect competition as a specific - though in reality very rare - case (Hunt and Morgan 1997). R-A theory therefore can be seen as more realistic and explains many phenomena better than perfect competition theory (Hunt 2000a).

TABEL 1.3

Foundational Premises of Perfect Competition and Resource-Advantage Theory

	Perfect Competition Theory	Resource-Advantage Theory
P 1. Demand is:	Heterogeneous across industries, homogeneous within industries, and static.	Heterogeneous across industries, heterogeneous within industries, and dynamic.
P 2. Consumer information is:	Perfect and costless.	Imperfect and costly.
P 3. Human motivation is:	Self-interest maximization.	Constrained self-interest seeking.
P 4. The firm's objective is:	Profit maximization.	Superior financial performance.
P 5. The firm's information is:	Perfect and costless.	Imperfect and costly.
P 6. The firm's resources are:	Capital, labor and land.	Financial, physical, legal, human, organizational, informational and relational.
P 7. Resource characteristics are:	Homogeneous and perfectly mobile.	Heterogeneous and imperfectly mobile.
P 8. The role of management is:	To determine quantity and implement production function.	To recognize, understand, create, select, implement, and modify strategies.
P 9. Competitive dynamics are:	Equilibrium-seeking, with innovation exogenous.	Disequilibrium-provoking with innovation endogenous.

Derived from Hunt and Morgan (1997).

TABLE 1.4

Research Traditions Sharing Affinities with Resource-Advantage Theory

Research Tradition	Affinities with Resource-Advantage Theory
Evolutionary economics	Competition is an evolutionary, disequilibrating process. Firms have heterogeneous competencies. Path dependencies can occur.
Austrian economics	Competition is a knowledge-discovery process. Markets are in disequilibrium. Entrepreneurship is important. Value is subjective. Intangibles can be resources.
Heterogeneous demand theory	Intra-industry demand is substantially heterogeneous. Heterogeneous supply is natural. "Product" should be defined broadly.
Differential advantage theory	Competition (a) is dynamic, (b) is both initiatory and defensive, and (c) involves a struggle for advantages. General equilibrium in inappropriate welfare ideal.
Historical tradition	History "counts." Firms are entities that are historically situated in space and time. Institutions influence economic performance.
Industrial organization economics	Firm's objective is superior financial performance. Marketplace positions determine relative performance. Competitors, suppliers and customers influence performance .
Resource-based tradition	Resources may be tangible or intangible. Firms are historically situated combiners of heterogeneous, imperfectly mobile resources.
Competence-based tradition	Competition is disequilibrating. Competencies are resources. Renewal competencies prompt proactive innovation. Firms learn from competing. Firms are embedded.
Institutional economics	Competition is disequilibrating. "Capital" is more than just physical resources. Resources have "capabilities."
Transaction cost economics	Opportunism occurs. Many resources are firm-specific. Firm-specific resources are important.
Economic sociology	Institutions can be independent variables. Social relations may be resources. Economic systems are embedded.

Derived from Hunt (2000a). For representative works in these traditions, see Hunt (2000a, p. 4-5).

3.2 Background of the Theory

R-A theory shares affinities with a variety of research streams (see Table 1.4). It is beyond the scope of this overview to discuss these in detail (see Hunt 2000a for a review). However, five important features of the theory should be emphasized.

First, in R-A theory competition is defined as: “the disequilibrating process that consists of the constant struggle among firms for comparative advantages in resources that will yield marketplace positions of competitive advantage for some market segment(s) and, thereby, superior financial performance.” (Hunt 2000a, p. 12). Competition is seen as a dynamic process in which non-price competition is emphasized. By introducing innovations to the market, firms can improve their market positions and thus their financial performance.

Second, firms don't compete necessarily within certain industries, but do compete necessarily on certain markets or market segments. Market segments “are intra-industry groups of consumers whose tastes and preferences for an industry's output are relatively homogeneous.” (Hunt 2000a, p. 11). The notion of competition on market segments is a key feature of marketing.

Third, the firm's resources are of various kinds: financial, physical, legal, human, organizational, informational and relational. As such they may be the result of the firm's past and they may be imperfectly mobile: rooted in the culture of an organization. R-A theory defines resources as: “the tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value to some market segment(s).” (Hunt 2000a, p. 11). To this respect, R-A theory is linked to the resource-based view of the firm, as well as to competence-based theories.

Fourth, firms strive for superior financial performance: “a level of financial performance that exceeds that of its referents, often its closest competitors.” (Hunt and Morgan 1995, p. 6). Organizations do not maximize profits because they generally lack the information to do so and because morality considerations may prevent them.

Fifth, value “refers to the sum total of all benefits that customers perceive they will receive if they accept a particular firm's market offering.” (Hunt 2000a, p. 32). Since value is an ambiguous concept (Zeithaml 1988) of which many definitions are in use (Woodruff 1997), it is important to note that value doesn't include price or price perceptions in this definition. Zeithaml (1988) sees customer value for example as a customer's trade-off between perceived quality and perceived sacrifices. Perceived sacrifices include both monetary and nonmonetary sacrifices. The perspective from the firm is however different. A firm's market offering is a combination of a certain

degree of value (total sum of benefits) *and* a price (Anderson and Narus 1998). Firms set out to create value in products, services, or bundles and firms determine an objective price level stating the amount of money that is asked in return from customers for delivering value, as well as conditions of payment stating how and when this monetary amount will be paid by the customer. “*Relative superior value* therefore, equates with *perceived to be worth more.*” (Hunt 2000a, p. 32, italics in original), and *price* equates with *monetary effort* (Gijbrecchts 1993), or *monetary amount plus conditions of payment.*

3.3 Overview of R-A Theory

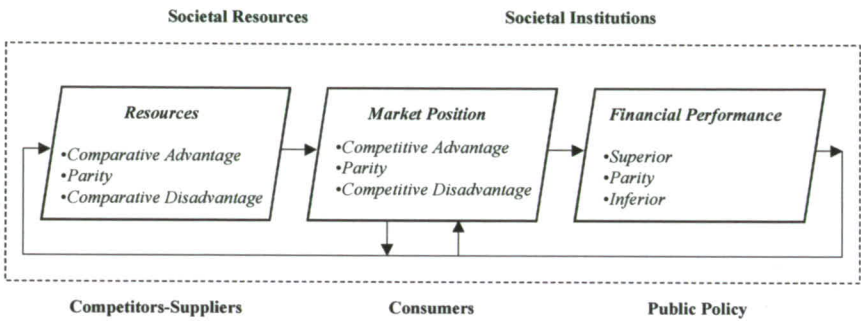
R-A theory can be explained on the basis of Figures 1.2 and 1.3. According to R-A theory, firms strive to achieve superior financial performance, which can be achieved through a market position of competitive advantage. A position of competitive advantage is a consequence of a firm’s advantage in resources compared to competitors (Figure 1.2). Market positions depend on the value the firm creates on the basis of its resources to a certain market or market segment compared to competitors, as well as on resource costs compared to competitors (Figure 1.3).

Firms achieve a position of competitive advantage if they create superior value at costs lower than or equal to competitors (respectively cell 3 and 6 in Figure 1.3), or if they create value equal to competitors at lower costs (cell 2). In other words: to capture a position of competitive advantage, a firm needs a comparative advantage in its resources that enables it to produce more effective and/or efficient than its competitors. A firm obtains a position of competitive disadvantage if it creates relatively lower value at costs equal to or higher than competitors (cells 4 and 7), or if it creates value equal to competitors at higher costs (cell 8).

Cell 5 represents a parity position. In this situation all firms competing on a certain market or market segment have relatively equal resource-produced value and relatively equal resource costs. A firm that occupies a market position represented by cell 1, in which it creates lower value at lower costs, will have to set lower prices than competitors in order to have a chance at achieving competitive advantage. Also if the firm creates relatively higher value at relatively higher costs, its position is indeterminate (cell 9). Its competitive advantage depends here on the willingness of customers to pay premium prices in return for market offerings of superior value.

The process of R-A competition is dynamic. In order to achieve a position of competitive advantage, firms seek continuously for a comparative advantage in resources. Achieving superior financial performance enables the firm to invest in resources. Firms can improve their market positions by introducing innovations to the market. According to R-A theory, proactive innovations can be distinguished from reactive innovations. Proactive innovations offer superior customer value thus

FIGURE 1.2
Resource-Advantage Competition



Derived from Hunt and Morgan (1997)

FIGURE 1.3
Competitive Position Matrix ^a

Relative Resource-Produced Value

		Lower	Parity	Superior
Relative Resource Costs	Lower	1 Indeterminate Position	2 Competitive Advantage	3 Competitive Advantage
	Parity	4 Competitive Disadvantage	5 Parity Position	6 Competitive Advantage
	Higher	7 Competitive Disadvantage	8 Competitive Disadvantage	9 Indeterminate Position

^aRead: The marketplace position of competitive advantage identified as Cell 3 results from the firm, relative to its competitors, having a resource assortment that enables it to produce an offering for some market segment(s) that (a) is perceived to be of superior value and (b) is produced at lower costs.

Derived from Hunt and Morgan (1997)

repositioning the firm in cell 3, 6 or 9 depending on its resource costs. Reactive innovations offer customer value equal to competitors, thus repositioning the firm in cell 2, 5 or 8 (Hunt and Morgan 1997). As such, competitive positions are not stable. Positions of competitive advantage can be sustained if they are based on resources that are difficult to imitate or obtain by competitors.

Organizational learning is endogenous to the process of competition. If the firm achieves a certain degree of performance, it may learn about the competitive position and the specific resources on which this position is based. By learning from the process of competition, organizations may learn in which resources it should invest in order to improve its position. Considering that a firm may learn the wrong things, a position can be harmed if the firm invests in the resources that don't lead to a position of competitive advantage.

The process of R-A competition is influenced by customers, competitors, suppliers, societal institutions, public policy and societal resources. Customers' preferences may change, competitors may imitate certain types of resources, suppliers may raise their prices, etc. These stakeholders may impact on the comparative advantage of resources as well as on the explicit and implicit "rules of the game." Societal resources impact on the firm's resources, like the availability of natural resources such as oil, or the level of education in a society. Resources of a legal nature, like patents, may protect innovations, while environmental or safety laws may force firms to modify production plants and processes.

3.4 Potential Contributions of a R-A Perspective on Pricing

Having outlined the major ideas, the background, and the foundational premises of R-A theory, two questions remain. First, is R-A theory a perspective that could help to overcome the gaps in literature on pricing practices as indicated in section 3? Second, does the development of a R-A perspective on pricing also contribute to R-A theory itself?

First, in section 3 it is concluded that pricing literature lacks a theoretical perspective on pricing practice, that (1) pays respect to the complexity of pricing as it occurs in organizational practice; (2) provides links with other streams of pricing research in stead of excluding them; (3) offers a way to develop normative statements about the success of pricing practices; and (4) relates pricing to the creation of customer value. These four issues are addressed below.

Would a R-A perspective to pricing pay respect to the complexity as it occurs in organizational practice? R-A theory is based on more realistic foundational premises than conventional price theory (Hunt and Morgan 1995). This is perhaps the most distinctive feature of applying a R-A perspective to pricing, since reliance on

economic-based assumptions, approaches, and models is often mentioned as an important reason for the existence of a gap between academic pricing research and organizational pricing practice (Bonoma Crittenden and Dolan 1988; Diamantopoulos 1991; Hall and Hitch 1939; Monroe and Della Bitta 1978; Nagle 1984; Oxenfeldt 1973). Since R-A theory adopts a resource-based view, pricing is a competence (Dutta, Zbaracki, and Bergen 2001). By its nature of a competence, pricing is complex by definition: a complex bundle of skills and collective learning, exercised through organizational processes, that ensure superior coordination of the pricing function (Day 1994). Pricing is therefore approached as an organizational process rooted in a competence, which answers the calls of Oxenfeldt (1973), Monroe and Mazumdar (1988), Bonoma, Crittenden and Dolan (1988), Cressman (1999) and Noble and Gruca (1999b) for research on the organizational process that lead to price decisions.

Does a R-A perspective on pricing offer an integration with different approaches to pricing? R-A theory shares affinities with many research traditions that have links with for instance economics, sociology and psychology. In principle, R-A theory offers a connection with main stream pricing literature, since it incorporates perfect competition theory as a specific case (Hunt and Morgan 1997). It is also connected with literature that studies customers' price and value perceptions. R-A theory views customer value as benefits *perceived* by the customer. In addition, it also acknowledges the fact that customers make perceptions of prices. It argues for example that if a firm creates superior value at higher costs than competitors (position 9 in Figure 1.3), competitive advantage depends on whether the customer is *willing* to pay the relatively higher price asked by the firm. Finally, by providing a theoretically grounded basis with foundational premisses that are injected with realism, it should also be able to incorporate findings from descriptive cases that study pricing in the complex context of organizational practice. For these reasons, pricing from a R-A perspective can be integrated with pricing literature taking different perspectives. This will pay respect to Monroe and Mazumdar's (1988) comment that pricing research should be interdisciplinary: the R-A perspective doesn't exclude any other perspective.

Does a R-A perspective on pricing offer a way to develop normative statements on pricing practices? Although R-A theory rejects the assumption that firms strive for profit maximization, it explicates relationships between resources and market positions, as well as between market positions and performance. Integrating pricing in this process would provide a basis to develop normative statements on how pricing practices are rooted in competences, how they relate to market positions and how they affect performance.

Does a R-A perspective on pricing offer a link with the creation of customer value? R-A theory sees competition essentially as a process of non-price competition, meaning

that price is not an equilibrium-seeking element, but much more an opportunity to be rewarded for disequilibrium-seeking competitive behavior by the firm. Creating more customer value for a certain market or market segment than competitors do, or matching the customer value that competitors offer in more efficient ways, is key to this process. Comparable to Porter's (1985) work, R-A theory includes a relationship between market positions and relative price level. As such, R-A theory acknowledges a link between the customer value created and price. It offers a link to connect the success of pricing practices with the creation of customer value, in line with Cressman's (1999) call.

Second, does the development of a R-A perspective on pricing also contribute to R-A theory itself? As has become clear, R-A theory offers a theoretical perspective that potentially can explain the complexity of pricing in business, can bridge gaps between pricing practices and other pricing research, can develop normative statements to test the success of pricing practices, and provides a link with customer value created by the firm. Apart from the relationship between relative price level and indeterminate market positions (positions 1 and 9 in Figure 1.3), price and pricing are virtually absent in *A General Theory of Competition* (Hunt 2000a). Only in their application of R-A theory to antitrust policy, Hunt and Arnett (2001, p. 23) touch upon the topic by arguing that [R-A] "competition is expected to produce price differentials that are often long-lasting."

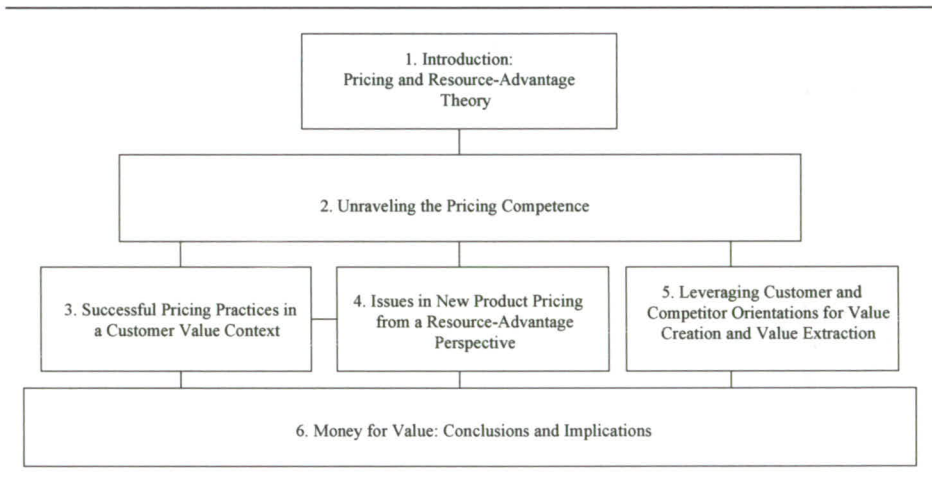
Considering that R-A theory makes important promises like explaining economic growth, and considering that managers find pricing important and difficult, that it may have severe consequences when mistakes are made, and that it is prominent in public policy and society (see section 1), it is important to make R-A theory more complete by including price and pricing more explicitly in the theory.

4. STRUCTURE

The remainder of this thesis consists of five chapters (see Figure 1.4). Chapter 2, *Unraveling the Pricing Competence*, aims to place pricing in the process of non-price competition as described by R-A theory and to develop a perspective on pricing that pays respect to the issues addressed above. The chapter will discuss literature on pricing practices that is consistent with this theory and describe pricing as an organizational competence consisting of multiple organizational decision processes related to processes that contribute to the creation of customer value. In addition, it will conceptualize different decision areas in pricing and their relationship to each other. This provides an opportunity to bring pricing decisions as described in pricing literature in their organizational context. Chapter 2 provides a descriptive theoretical basis for the normative empirical studies in the following chapters.

Chapters 3, 4, and 5 can be read as independent projects within the central theme of this thesis. As we will see in chapter 2, price and pricing are related to all elements of the process of R-A competition: resources, market positions, and performance. Roughly, chapters 3 and 4 will examine several aspects of pricing in relation to market positions and chapter 5 examines pricing in relation to the firm's resources. These chapters share a focus on price decisions of new products and/or services. Because innovations are the most important means through which competitive positions are improved or sustained in the process of R-A competition (Hunt and Morgan 1995), new product/service price decisions may be considered as most prominent in business practice.

FIGURE 1.4
Structure of Thesis



Chapter 3, *Successful Pricing Practices in a Customer Value Context*, is an empirical test of three pricing practices: cost-informed, competition-informed and value-informed pricing. These refer to the use of several types of information in price decisions on the product's market position. The chapter conceptualizes these pricing practices and formulates hypotheses on the degree to which they contribute to the success of a price decision, under different conditions of customer value that the firm created in product innovations and different degrees of competitive intensity. The hypotheses are tested on 77 new product price decisions for industrial capital goods. As such, this chapter uses a "clear-cut" pricing situation to test hypotheses based on R-A theory. "Clear-cut" because the sample is limited to products that generally have few customers, require high investments and that are purchased in a group process by industrial customers that are generally well informed. In addition, this chapter

contributes a discussion of several measurement issues of pricing practices that may have influenced prior surveys, and it develops new multiple item measures.

Chapter 4, *Issues in New Product Pricing from a Resource-Advantage Perspective*, addresses three issues of new product pricing related to product's market positions. First, it builds on the findings from chapter 3 to develop hypotheses on the success and contingencies to success of pricing practices. With respect to success, it differentiates in the effects of pricing practices on relative profit margins and market performance. It adds contingencies of relative product costs, to the contingencies on relative product advantage and competitive intensity. Second and third, this chapter examines two other key issues of pricing from a R-A perspective: the effect of market position on relative prices, and the importance of pricing for products in positions of competitive advantage compared to products that don't occupy a position of competitive advantage. Chapter 4 contains an extensive methodology section that describes the data collection procedure and measurement of variables of both chapters 4 and 5. The measurement instruments on value-, competition-, and cost-informed pricing developed in chapter 3, are modified and applied to a variety of products and markets. Hypotheses are tested on price decisions for 144 new products. These include both durables and commodities, physical products and services, and consumer and industrial products. Therefore, this chapter strongly contributes to the empirical generalizability of successful pricing practices.

Chapter 5, *Leveraging Customer and Competitor Orientations for Value Creation and Value Extraction*, integrates value-informed pricing in a framework of market orientation and new product performance. As such, it brings pricing in relation to the firm's resources, specifically its market orientation. Of all possible types of resources, market orientation received a lot of attention in marketing literature since it should provide a basis for superior business performance. The chapter reviews literature on the market orientation-performance relationship and develops a model that includes several mediating variables that refer to the creation of customer value. By introducing value-informed pricing as a mediating variable it includes routes of value extraction along the routes of value creation in the market orientation-performance relationship. It is argued that including routes of value extraction in the model has the potential to explain some of the ambiguity surrounding the current evidence on the market orientation-performance relationship. The framework is tested on the same dataset of new product price decisions as used in chapter 4. It is examined how value creation and value extraction are rooted in customer and competitor orientations, how they relate to each other, and whether these relationships are stable across markets with high and low competitive intensity and high and low demand uncertainty.

Chapter 6, *Money for Value: Conclusions and Implications*, draws conclusions from the previous chapters, summarizes the contributions, and discusses implications for theory, business practice, teaching, public policy, and future research.

Chapter 2:

Unraveling the Pricing Competence

'Despite the great emphasis placed on the nonprice facets of competitive strategy, pricing presents business management and our society with one of its most important and perplexing economic problems.'

Jon G. Udell, 1972.

1. INTRODUCTION

It is the purpose of this chapter to integrate pricing in R-A theory, thereby developing a perspective on pricing that (1) pays respect to the complexity of pricing as it occurs in organizational practice; (2) provides links with other streams of pricing research in stead of excluding them; (3) offers a basis for to develop normative statements about the success of pricing practices; and (4) relates pricing to the creation of customer value.

The first step is to examine the body of literature that can be helpful in accomplishing this task. The empirical evidence provided by these studies will be used to underpin some of the arguments in the sections to follow. The second step is to integrate pricing in the process of R-A competition: the relationships of pricing and price with resources, market positions, and performance. Drawing these relationships will provide a basis to develop normative statements on pricing practices in the chapters to come.

Since competences are typically exercised through organizational processes, the third step is to describe the activities of an organizational process that leads to a price decision. The fourth step is to describe pricing as an organizational competence. This competence is unraveled by differentiating the pricing processes within an organization, their relationships with organizational processes that contribute to customer value, and different decision areas that organizations come across in these processes. The differentiation of processes is based on Day's (1994) conceptualization of a market-driven organization. Describing the multiplicity of organizational processes and decision areas provides a further understanding of the complexity of pricing in its organizational context. By differentiating decision areas, a link is

provided with pricing literature in marketing from perspectives other than R-A theory. Finally, conclusions will be drawn and several implications for the empirical studies in the following chapters are discussed.

2. LITERATURE REVIEW

Literature on pricing from an organizational perspective includes a large number of academic disciplines (Diamantopoluos 1991). Because of a dissatisfaction with neo-classical economic theory in efforts to describe and explain how organizations determine prices, a number of approaches has been developed (see Diamantopoulos 1991 for an overview). Here, the selected literatures are of an empirical and academic nature, written in the English language, and give insight in how firms arrive at price decisions. Applying these guidelines to the available body of literature, a total of 38 contributions are selected. This literature covers a period of more than six decades and its contributions are published in a variety of outlets including articles from marketing, economics, and managerial journals, books, doctoral theses and conference proceedings.

Although not entirely independent from each other, the literature can be grouped in three major streams: the first building basically on cost-principles theory (Hall and Hitch 1939), the second on the role of pricing in marketing strategy (Udell 1964; 1968; 1972), and the third on organizational behavior in decision processes (Cyert and March 1963). The three streams of literature have in common that they originate from dissatisfaction with neo-classical economics in describing pricing behavior from a firm perspective. They are briefly discussed below. More details can be found in Tables 2.1-2.3.

2.1 Pricing Literature Based on Cost-Principles Theory

The first stream of literature is based on cost principles theory (see Table 2.1), starting with the work of Hall and Hitch (1939) who show on the basis of interviews that firms actually do not determine prices with the objective of profit maximization. In stead, they use satisficing objectives by using costs and a satisficing profit margin to base their prices on. The simple notion of prices based on costs calculations and a profit margin has become a popular item in marketing and management textbooks better known as cost-based or cost-plus pricing (e.g. Monroe 1990; Nagle and Holden 1995). The success of this practice is often questioned in marketing literature (e.g. Cressman 1999; Dean 1950; Nagle and Holden 1995).

This idea of managers calculating prices on the basis of internal information regarding costs and excluding information of the market environment however, is not entirely consistent with the stream of literature. Although cost principles theory in its core

represents an absence of market information in the price setting, Hall and Hitch (1939) already include categories of companies that use market information in determining their profit margin and in the appendix of their study they even describe cases of companies that base their prices essentially on customer or competitor information. In extensions of and critique to cost-principle theory, it has been argued that during the pricing process discussion takes place about the assumptions underlying the cost figures and the market situation and that finally the deciding factor is the price that customers are willing to pay (Edwards 1952; Foxall 1972; Hague 1971; Sizer 1966). Another point that has been raised is of a methodological nature: managers tend to justify their price settings by explaining their cost calculation procedures. Only when the underlying assumptions of such calculations are questioned managers tell about the nature and importance of market information in price settings. As such, market information can be overlooked easily when a theory is based on interviews and surveys using categorical data (Foxall 1972; Pearce 1956).

2.2 Pricing Literature Based on Marketing Strategy

The second stream of literature, labeled pricing literature based on marketing strategy (see Table 2.2), originates with the work of Udell (1964; 1968) showing that pricing is less important in marketing strategy practice than neoclassical economic theory generally suggests. Udell extends this approach in later work in which he also focuses on the practices by which firms arrive at price settings (Udell 1972). Many research efforts are undertaken in the spirit of Udell's approach, categorizing typical pricing practices such as setting price objectives, price-setting methods and policies on basis of survey data.

In general, the stream of pricing literature based on marketing strategy suffers from a number of weaknesses. First, it is theoretically not very well grounded. Many contributions set out to give an overview of pricing practices in business but do not base this on any theoretical perspective what so ever. Contributions generally do not test grounded hypotheses. Second, and as a consequence of the first issue, this stream of literature is conceptually highly inconsistent. For instance, many different conceptualizations of pricing methods are in use and some are even confused with pricing strategies. Third, several contributions overlook results from prior studies. As a result the literature can be labeled as fragmented. Fourth, many contributions use relatively simplifying measurement techniques. Pricing methods are for instance often measured on the categorical level: managers chose one of a number of pricing methods listed in a questionnaire, without including the possibilities of using more than one method or entirely different methods. Fifth, analysis techniques are often limited to descriptives like means or percentages. Sixth, research is mostly conducted in markets for industrial durable products. Research on consumer goods is underrepresented, while service industries seem to be virtually absent.

TABLE 2.1
Pricing Literature Based on Cost-Principles Theory

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Hall and Hitch (1939)	How organizations determine prices.	Economics.	Interviews in 38 firms from several industries.	Find that firms actually don't set prices with the objective of profit maximization, but use more satisficing objectives. Firms base prices on costs and profit margins. Find market information to be important in determining profit margins in a number of firms, and find several firms that base their price not merely on costs but on competition or customer elements.
Edwards (1952)	The role costs information compared to market information in price settings.	Economics.	2 case studies in manufacturing industries.	Argues that costs methods are used to justify price decisions that already have been taken, and that the freedom of determining price levels is limited by external circumstances. Describes pricing as a process that benefits from discussions between different business departments and from experience in understanding the market. Comments sharply on costs-principles theory (p. 303): "... there are a great many factors entering into price-fixing and of these far and away the most important is the price the customers are willing or can be induced to pay."
Pearce (1956)	The role of costs and market information in pricing and methods of examining firms' pricing behavior.	Economics.	Single case based on interviews and accounting data.	Finds that market information to a large extent affects profit margins and thus selling-prices. Methodologically he finds that managers tend to explain their price settings on the basis of cost calculations and neglect the market information they actually use in their price settings.
Fog (1960)	Comparison of neo-classical price theory with price setting in practice.	Economics/ Management.	Survey of 139 Danish firms in various industries.	Distinguishes neo-classical economics as an instructive theory from cost-principles theory as a descriptive theory, but finds large deviations in practice from this theory of companies not using cost-based approaches, but market-based approaches.
Sizer (1966)	Examining the contribution of the accountant in price settings.	Management.	Discussion of evidence from various cases.	The contribution of the accountant varies over different pricing processes. By applying cost-plus pricing, accountants help to reduce the uncertainty of future profits. Nevertheless, cost calculations should only be used as reference points, since the pricing process will also need input on other factors.
Wentz (1966)	The role of market information in price setting and performance consequences.	Marketing.	Two cases in consumer and industrial industries.	Finds that costs only determine selling prices to a small extent and that analysis of the external environment in pricing decisions contributes to financial performance.

TABLE 2.1 (Continued)

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Skinner (1970)	Find more details about the practice of cost-plus pricing and the circumstances under which it is used more frequently.	Management.	Survey.	Finds that costs and profits are important factors that are included in price decisions, but not the only factors. Market-factors are used by a number of firms to determine or change profit margins, but were limited in the general pricing policy.
Foxall (1972)	Descriptive theory on pricing for marketing as opposed to cost theory.	Marketing.	Interviews in firms producing consumer electrical appliances.	Finds that companies are likely to use cost-plus formulas in their price setting, but that market factors are included in the final price setting and are the basis of the existence of price differentials. Managers however are likely to tell the cost-plus formula when is asked how prices are set. As such he concludes that cost-principles theory is based on insufficient empirical evidence.
Shipley (1981)	The use of pricing objectives in practice.	Economics.	Survey on 728 UK firms in multiple industries.	Companies may have a set of pricing objectives that change over time. Firms are more likely to satisfice than to maximize. Profit target is the most mentioned objective, long-term horizons are more popular than short-term horizons. Objectives vary to a greater extent with firm size than with number of competitors.
Shipley (1983)	Flexibility of pricing techniques and its determinants.	Economics.	Survey on 728 UK firms in multiple industries.	Most firms tend to be relatively flexible in their pricing practices, and this is not affected by the extent to which the firm is committed to cost-based techniques. Flexibility is influenced by size but not by the number of close competitors in the market.
Jobber and Hooley (1987)	Pricing objectives in relation to market evolution, firm size, and performance.	Economics.	Survey on 1775 UK service and manufacturing firms.	Revenue is more often an objective in emerging and declining markets, while profit is more widespread as objective in growing and mature markets. Profit and market share objectives are more found in larger firms, while cash flow is an important objective of small firms in turbulent markets. The objective of sales revenue is related to poorer performance, while profit and market share objectives result in respectively higher profits and market shares.
Diamantopoulos and Mathews (1994)	How pricing objectives are determined in practice?	Economics.	Interviews and survey in a single multi-product oligopoly firm.	Uses fine grained measurement techniques to find that on the long-run organizations may be maximizers, while on the short-run they will be satisfiers. Different objectives may co-exist in one firm at the same time.
Blinder, Canetti, Lebow and Rudd (1998)	Why prices in reality don't change as frequently as suggested by economic theories.	Economics.	Survey on 564 US firms in a variety of industries.	Uses cost-principles theory along a number of other theories to explain "price stickiness". Findings indicate that prices are "sticky" because of fear that competitors will not change prices, price increases wait for cost increases, non-price competition and relationships between supplier and customer firms.

TABLE 2.2
Pricing Literature Based on Marketing Strategy

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Udell (1964)	The role of price in marketing strategy.	Marketing.	Discussion of survey results.	In contrast to economic theory, it is shown that products are actually more important in marketing strategy than price. The non-price elements of marketing strategy are better explained by the nature of the product and its market, than industry structure or firm size.
Udell (1968)	The role of price compared to other elements in marketing strategy.	Marketing.	Survey.	Uses more sophisticated measurement techniques to show that sales effort (including communications) and product effort exceed pricing in importance. Argues that the importance of pricing is limited because of (among others) the welfare level in the U.S., the necessity of informing consumers, oligopoly structures and product differentiation as a means to charge higher prices.
Nimer (1971)	Discussion of pricing practices in technology industries.	Marketing.	Survey.	Prices are affected by costs to a large extent; nevertheless a large majority also includes the "utility value" or "economics to the customer" in the price setting and uses different pricing policies for different products. About half uses recommendations from marketing or sales departments.
Pass (1971)	Investigate pricing objectives and importance of pricing in marketing strategy.	Marketing.	Survey on 85 UK firms.	Although companies appear to have relatively well defined pricing objectives with a long-term profit horizon, pricing is found to be multi-purpose and must be viewed in the context of the company's general strategy for achieving its corporate objectives.
Udell (1972)	Role of marketing instruments in marketing strategy as a foundation of non-price marketing strategy.	Marketing.	Two large US surveys.	Results show among others that cost-plus pricing is exceeded by pricing according to competitive levels and (depending on the industry) pricing according to "what the market will bear."
Robicheaux (1975)	Determine the importance of pricing in marketing strategy and compare results with Udell (1964).	Marketing.	Survey on 74 firms in industrial and consumer industries.	Finds pricing to be perceived as the most important element of marketing strategy, which is in contrast with Udell's (1964) findings. The difference is explained by managers' perceptions of inflation, recession and energy crisis in those days.
Piercy (1981)	Export market selection and pricing on export markets.	Marketing.	Survey on industrial UK firms (n = 116).	Finds that two thirds of the investigated firms use market-based pricing methods as opposite of cost-based methods. Firms tend to use different prices on export markets.

TABLE 2.2 (continued)

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Hooley, West and Lynch (1984)	Inventory of perceived importance of pricing, pricing methods and objectives.	Marketing.	Survey on 1547 UK firms in consumer and industrial markets.	Find a relatively low importance of pricing in marketing strategy, but a high importance of pricing in new product and service success or failure.
Abratt and Pitt (1985)	Investigate and compare pricing practices of industrial firms in two industries.	Marketing.	Interviews in the construction (n = 12) and chemical (n = 9) industries in South Africa.	Find costs and competitors' prices to be most influential in pricing decisions, followed by buyer behavior and economic climate. About two thirds of the firms use demand estimations aside cost-plus methods. Find a high percentage of people responsible for price decisions in the marketing and sales departments.
Samiee (1987)	Pricing objectives and importance of price in marketing strategy.	Marketing.	Survey on 104 US-based and 88 foreign-based firms.	Finds pricing to be the second most important element in marketing strategy after product. US-based firms rank pricing on average higher than foreign-based firms. Foreign-based firms also take pricing decisions more decentralized and have a longer-term focus in their profit objectives.
Coe (1990)	Changes in pricing objectives, methods and strategies of US companies in the 1980s.	Marketing.	Longitudinal survey on 50 to 60 US industrial firms.	A decline of product innovation as core strategy throughout the 1980s goes parallel with a declining role of pricing in marketing strategy, an increase of profit pricing objectives over market share and competition objectives, and an increase of cost-plus pricing at the expense of market-based pricing strategies.
Frambach, Nijssen, and Van Heddegem (1997)	Pricing methods and their determinants.	Marketing.	Survey on Belgian firms in the engineering (45) and chemical (39) industries.	Use metric scales to measure pricing methods and find that firms use a mix of cost-based and market-based pricing methods, although cost-based methods tend to dominate in the engineering industry. The choice for pricing methods is found to be influenced by pricing objectives, customer characteristics and market structure.
Myers (1997)	The use and non-use of competitive pricing in exports.	Marketing.	Interviews and survey in 369 exporting US firms.	Finds that companies that put a lot of time and effort in pricing, and who price in a systematic way with extensive use of market information, have overall a higher satisfaction with the outcomes of price decisions. Pricing is found to be the second most important element of marketing strategy, but marketing managers often feel no support in their pricing efforts from top management or production departments.
Noble and Gruca (1999)	Apply Tellis' (1986) framework of pricing strategies to industrial markets and empirically test this.	Marketing.	Theory and survey on 270 US industrial capital goods firms.	Find confirmation for the theoretical framework of pricing strategies and their determinants. Find a high number of firms to use cost-based methods in their strategies.

TABLE 2.2 (Continued)

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Antilla and Möller (2000)	The effect of market and strategic orientation on pricing methods and price level.	Marketing.	Survey on 182 Finnish firms in electro and metal industries.	Highly market oriented companies charge on average more price premiums and base their price more on what the market can bear and less on costs, while mediocre market oriented companies base their price more on competition. Large companies charge more often price premiums.
Tzokas, Hart, Argouslidis and Saren (2000)	Industrial export pricing and pricing competence: pricing, objectives, methods and policies.	Marketing.	Survey on 178 UK exporting firms in chemical, metal and plastic-rubber industries.	Find five different pricing orientations and generally a higher importance of market factors than cost factors, even though production costs is the most important single factor. Firms with a high pricing competence follow a customer orientation in their general approach to pricing, their pricing objectives, and methods.

TABLE 2.3

Pricing Literature Based on Organizational Decision Processes

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Cyert and March (1963)	Behavioral theory of the firm.	Economics.	Theory and case studies, laboratory experiments and simulation regarding price and output decisions.	On basis of their theory, they formulate detailed pricing and output models in which they show that specific objectives can be reached by using rules of thumb (like cost-based pricing rules).
Farley, Howard and Hulbert (1971)	Analyzing a market information system for short-term price decisions.	Management.	Case study of a single firm in the aluminum industry.	Find that short-term price decisions are strongly affected by crossfunctional collaboration and information sharing, as well as by implications of the firm's marketing strategy. The success of permanent and incidental price changes can be increased within the current organizational behaviors.
Hague (1971)	Describe the pricing process from a behavioral theory of the firm perspective.	Marketing.	13 case studies in small and large UK firms from different industries.	Only a few firms have single managers taking price decisions. Most firms have either small or larger groups that take price decisions. Both types of groups are strongly involved in informal discussions, but larger groups (often in large firms) tend to use more formal procedures and calculations in their decisions.
Capon, Farley and Hulbert (1975)	Mapping systems of forecasting and short-term price modifications.	Management.	Case study of a single oligopoly firm.	The price decision system involves series of checks and balances and builds on formal and informal sources of information as well as the personal experience of the many individuals involved. Price objectives remain fairly constant over a longer period of time.

TABLE 2.3 (Continued)

Author	Primary focus	Perspective	Nature	Summary of relevant contents
Capon and Hulbert (1975)	Applicability of decision systems analysis for forecasting, pricing, advertising and new product decisions.	Marketing.	Case study of a single raw materials processing firm.	Find that decision system analysis can yield insights in problems faced by a company and that it offers solutions. Specifically, it may increase the success of pricing processes on various strategic levels, such as annual contracts and list prices.
Farley, Hulbert and Weinstein (1980)	Decision systems for volume planning and pricing.	Marketing.	Case study of a Belgian and a French firm on the French market.	Decision making process appears to be similar over the two different countries, but it varies in the degree of information processing and participation.
Bonoma, Crittenden and Dolan (1988)	Identifying managerial pricing concerns to direct future research.	Marketing.	Case studies on 4 firms in different industries.	Find that the basis for pricing varies across firms. Costs, distribution of channel power, and customers' use of the product. Conclude that managerially relevant pricing research should be more situation specific.
Morris and Joyce (1988)	Practices of marketers on estimating customers' price sensitivity.	Marketing.	Survey on 83 US industrial firms from multiple industries.	Marketers recognize the importance of determining customer price sensitivity and are reasonably well acquainted with its determinants and changing nature. However, they don't approach it in a systematic strategic fashion.
Dutta, Zbaracki, and Bergen (2001)	Pricing as a competence, following the resource-based view of the firm.	Strategy.	Single US case study.	Resources, skills and routines may help or prevent firms from setting an appropriate price. Pricing should thus be seen as a competence. Firms must invest in resources and routines in order to set prices effectively and extract rents from a strategy.

2.3 Pricing Literature Based on Organizational Decision Processes

The third stream of literature is labeled pricing literature based on organizational decision processes (Table 2.3). The stream of literature partially builds on cost principles theory. Consistent with cost principles theory, the behavioral theory of the firm sees firms as satisficing rather than maximizing entities, and cost-based pricing as rules of thumb that can routinely be applied to achieve a satisfying result (Cyert and March 1963). The high degree of realism of this theory gave rise to studies on organizational pricing processes in the organization itself. In contrast to the other two streams of behavioral pricing literature, this stream is therefore characterized by an abundance of qualitative work. Dutta, Zbaracki, and Bergen (2001) adopt a resource-based view and see the routines in a pricing process as part of a pricing competence.

In summary, the empirical literature on pricing practices is relatively small, especially when the importance and width of the topic are considered. The empirical evidence is best described as generally fragmented and anecdotal. Theoretical considerations are absent in many contributions, in particular those in the stream of literature based on marketing strategy. However, as a whole this literature provides a body of empirical evidence on pricing in organizational practice. This literature will be used in the next sections to underpin the development of a perspective on pricing based on R-A theory.

3. PRICING IN THE PROCESS OF R-A COMPETITION

Price received little attention in writings on R-A theory. It suggests that prices of two products in a situation of parity (cell 5 in Figure 1.3) are equal because both value and costs are equal to competitors. It also suggests that prices of products in indeterminate competitive positions, should be priced respectively lower (cell 1 in Figure 1.3) and higher (cell 9 in Figure 1.3) than those of competitors in order to achieve superior financial performance (Hunt and Morgan 1995). In addition, since resources are often not perfectly mobile, long-lasting differences in efficiency and/or effectiveness can be expected between competitors. Hunt and Arnett (2001, p. 23) argue for this reason that [R-A] “competition is expected to produce price differentials that are often long-lasting.”

However, implicitly the theory puts pricing at an important position in the process of competition. Consider a firm that “forgets” to set a price for the value it creates by enabling its resources. This firm will not be paid in return for the value it delivers to customers. As such, the creation of superior value will not result in superior financial performance, nor will it be able to sustain or improve its competitive position through investments in resources. Obviously, a firm that forgets to set a price is an unlikely case, but similar consequences could be expected at a firm that sets inappropriate

prices. Therefore, pricing is important in understanding the relation between market positions and performance.

As indicated in Figure 2.1, pricing is an integrated part of R-A competition: it affects performance and is related to the organization's resources, market position and learning processes. While enabling its resources to create value in market offerings, the firm also determines the price that it will ask in return. If it sets prices too high, customers will turn their back on the firm, which will harm the firm's financial performance. If it sets prices too low, the firm may find out a position of competitive advantage doesn't result in superior financial performance.

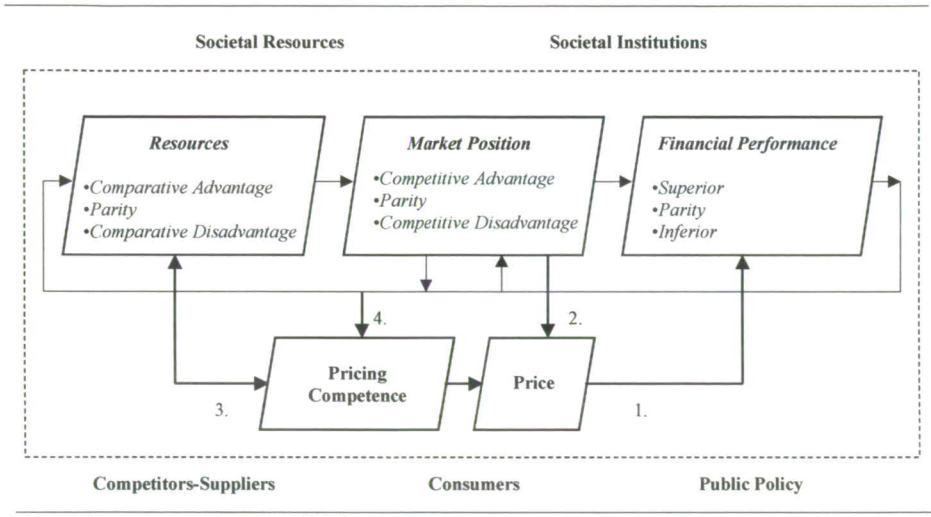
Just like marketing is a competence in R-A theory (Hunt 2000a), so is pricing, i.e. the competence that enables the firm to turn a market position into financial performance by extracting value *from* the customer (see also Dutta, Zbaracki, and Bergen 2001). Firms may achieve financial performance in several ways, like on the stock market, or by subsidies from the government. Pricing uniquely refers to the achievement of financial performance by extracting value from the customer, i.e. the customer gives up something valuable (usually a monetary amount) in order to gain something valuable created by the firm in an exchange process. Price can be defined from this perspective as the result of an organizational process in which is decided on the monetary amount and conditions of payment that are asked in return from customers for value delivered in market offerings to a certain market or market segment. Price level and conditions of payment are the only "sacrifices" of the customer for obtaining value in a market offering that the firm decides on. A pricing process is integrated in the pricing competence, which is itself integrated in the organization's resources.

As an integrated part of the process of competition, pricing is influenced by the same elements as the process of R-A competition as it is originally defined by Hunt and Morgan (1995): societal resources and institutions, customers, competitors, suppliers and public policy. These influences may take many forms, like inflation, legislation with respect to price increases, taxes, customers' price sensitivity, competitors' price actions and governmental protection. These and many other circumstances, create unique and complex situations for each pricing process. In the worst situation, it disables the firm to find a price setting that rewards it for the efforts in creating value. This will disturb the process of competition, because if market positions do not result in financial performance, investments in resources and search for value creation will come to a halt, thereby slowing down economic progress (Hunt 2000a).

3.1 Price and Performance

As indicated by arrow 1 in Figure 2.1, price affects performance in the process of R-A competition. First, there is substantial evidence that customers both in industrial (Anderson, Thomson, and Wynstra 2000) and consumer (Monroe 1990) contexts make perceptions of both price and value in purchase decisions. This suggests that customers may turn their backs on firms that create superior value, but set inappropriate prices. Second, pricing also affects performance directly. Assuming that sales are unaffected, a higher profit margin will yield higher profits.

FIGURE 2.1
Price and Pricing in the Process of R-A Competition



Adapted from Hunt and Morgan (1997)

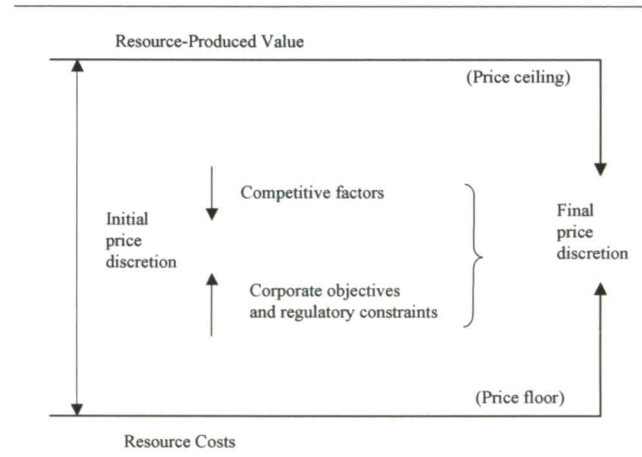
3.2 Market Position and Price

According to R-A theory, a price is not a result of supply and demand functions as suggested by perfect competition theory; instead it is *constrained by* relative value and relative costs. This is most prominent in -but not limited to- indeterminate market positions (cells 1 and 9 in Figure 1.3). The firm's resource-produced value and resource costs constrain prices in many ways. Long-term relationships with customers may increase the benefits offered by the firm as perceived by those customers. Patents may protect firms from a rapid decrease in value, which enables them to gain returns on investments. A bad financial position of the firm constrains its ability to drop prices in order to increase adoption of a new product as in a skimming strategy (Tellis 1986). Physical resources that require relatively high investments bring relatively high fixed costs, which constrains the price discretion.

Figure 2.2, suggests that value determines the maximum price that a customer is willing to pay for a market offering, and that costs determine the lowest price a firm

can determine without making a loss. Costs include both variable and fixed costs, since both types of costs affect the relative costs position of the firm. Between this upper and lower limit, the firm can choose from a range of possible price settings: the initial price discretion (Monroe 1990). Thus: the more effective and efficient the firm enables its resources, the more freedom it has in determining a price for a market offering. The final price discretion is according to Monroe (1990) determined by factors that influence the process of competition, such as competitors and regulations, as well as the corporate objectives (Monroe 1990).

FIGURE 2.2
Conceptual Orientation to Pricing



Based on Monroe (1990)

Because firms that create more relative value at relatively lower costs, have relatively more freedom in determining prices for market offerings, pricing is a more important competence to firms with weak market positions, than to firms with strong positions (represented by the diagonal of cells 1, 5 and 9 in Figure 1.3). These organizations have smaller initial price discretions, either due to lower value, higher costs or no superiority in either one of them. A strong pricing competence enables the firm to turn these questionable positions into profitable ones. Firms with a position of competitive advantage have larger price discretions. Determining an appropriate price is therefore an easier job than it is for firms with weak market positions. However, also firms with strong market positions will benefit from a strong pricing competence in that they increase the financial returns that flow from this market position. To firms obtaining a position of competitive disadvantage, good pricing practice will not matter in the long run. A position of competitive disadvantage can never be compensated with a strong pricing competence, since these firms cope with a negative price discretion: their price floor determined by relative costs is higher than their price ceiling determined by relative value.

Since relative value and relative costs determine the boundaries of the price discretion, a firm should reconsider its prices each time the competitive position matrix of a firm changes. Changes in competitive positions can be caused by the firm itself -for instance by launching new products-, or by external parties -for instance by competitors launching new products with superior value, suppliers raising their prices, or changing customers' perceptions. The first we label *price setting process*, because it sets a new price for newly created value, the latter a *price changing process*, because it changes an existing price. However, that organizations should reconsider their prices each time their competitive position is affected, does not mean that they actually change prices all the time. For instance, if a competitor launches a new product with superior value, launching rapidly a "me-too product", can be a more effective competitive action than a price drop. Also, a raise in costs is not necessarily followed by a price raise. Firms may opt for a structural price increase at a later moment, instead of fluctuating their price with cost increases or decreases (Blinder et al. 1998). Only if an existing price is no longer within the price discretion, there is a direct necessity to change the price, or to replace the market offering by a superior alternative.

3.3 Resources and the Pricing Competence

The firm's pricing competence is a resource itself that is related to other resources. Competence is defined as "an ability to sustain the coordinated deployment of assets in a way that help the firm achieve its goals" (Sanchez, Heene, and Thomas 1996, p. 8). Assets in this definition refer to "anything tangible or intangible the firm can use in its processes for creating, producing, and/or offering its products (goods or services) to a market" (Sanchez, Heene, and Thomas 1996, p. 7). A pricing competence enables the firm to deploy resources of various kinds in ways that it (1) understands its price discretion, and (2) enabled with this knowledge can take successful price decisions that help the firm achieve its goals. These resources may be information, which is imperfect and costly to the firm; it may be the ability to organize a pricing process that requires input from and collaboration between several business functions; it may be a market orientation to generate, disseminate, and use information on how much the value delivered to customers is actually worth in monetary terms, etc.

3.4 Learning in the Process of R-A Competition and the Pricing Competence

As in the process of competition an organization learns about many aspects of competition (Hunt and Morgan 1996), it also learns about pricing in two ways. First, it learns about its price discretion. If the firm learns about its market position, it also learns whether it has an advantage in value and/or costs compared to competitors and thus about its price discretion compared to competitors. Second, it learns about its pricing competence: what they did right and what they did wrong in their search for

price decisions that help the firm achieve its goals, and which resources enabled or disabled them to do so. However, although learning is a fact in the process of competition according to R-A theory, it is not guaranteed that the firm learns the right things (Hunt and Morgan 1996). As such, learning can also be a source of mistakes in pricing.

4. THE ACTIVITIES OF A PRICING PROCESS

Price is the result of a pricing process: an organizational process rooted in the pricing competence in which price decisions are taken. Marketing literature generally sees formal planning as the ideal form of such a process (Monroe 1990; Monroe and Mazumdar 1988; Nagle and Holden 1995; Oxenfeldt 1973). As an alternative to a planning process, Moorman and Miner (1998) introduce the concept of improvisation in which planning and execution converge in time. Specifically, they suggest that the narrower the time gap between planning and implementation, the more the act is improvisational. In pricing literature, examples of both planning and improvisation can be found (e.g. Hague 1971; Wentz 1966). Guiltinan and Paul (1985) argue that price decisions are often not very well planned by business and consider it a bad practice to do so. Consistently, Myers (1997) finds that the less time and effort are put in a pricing process, the lower managerial satisfaction with outcomes of the price decision. The rationale behind this finding would be that if an organization takes insufficient time to analyze the information that should be included in the price decision, the success of the price decision decreases.

Several activities of a price planning process can be distinguished: (1) determining the pricing objectives, (2) analysis of environmental and organizational factors on which pricing decisions are based, (3) decision making, (4) implementation of the price decisions, and (5) evaluation of the decision outcomes.

4.1 Determining Pricing Objectives

According to R-A theory, firms strive for superior financial performance (Hunt and Morgan 1995). The task of determining objectives, is then to determine what the firm should try to achieve with its individual market offerings, brands, or product lines in order to achieve superior financial performance in a certain market or market segment. Pricing objectives are likely to be identical to the overall objective of the market offering, brand or product line, since innovations like new products, services, brands and product lines are launched to improve the firm's market position. In the same way, Anderson and Narus (1998; 1999) argue that value and price can't be disconnected.

Consistently, pricing literature shows that firms have multiple pricing objectives at one point in time (Diamantopoulos and Mathews 1994; Shipley 1981), that may change over time (Shipley 1981), and are partly dependent on the stage of market evolution, firm size and market turbulence (Jobber and Hooley 1987). Typical internally determined objectives such as sales objectives result in poorer performance than market share and performance objectives (Jobber and Hooley 1987).

4.2 Analysis

Analysis involves a review of information on the external and internal environment on the basis of which price decisions can be made. A number of contributions in pricing literature discuss pricing practices that consistently fit the analysis phase, like the use of market and costs information (Edwards 1952; Fog 1960; Foxall 1972; Hague 1971; Hall and Hitch 1939; Morris and Joyce 1988; Pearce 1956; Sizer 1966; Skinner 1970; Wentz 1966). Myers (1997) finds a positive correlation between extensive use of market data in a pricing process and managerial satisfaction with the outcomes of price decisions. This finding suggests that analysis activities contribute to the success of a price decision.

A primary task in the analysis stage is to understand the price discretion. Organizations should first examine information on customer value to determine the price ceiling and on variable and fixed costs to determine the price floor. Next, they will need information on a variety of factors that determine the final price discretion, such as regulatory constraints and price sensitivity (Monroe 1990). As such, we can distinguish primary pricing information from secondary pricing information. In contrast to secondary information, primary pricing information (1) is based on the market position, and (2) can be used to assess initial monetary amounts. Primary information is information on customer value, which informs about the upper-boundary of the price discretion, costs- which informs about the lower-boundary of the price discretion, and competitors' prices which inform about the referents to assess *relative* value and *relative* costs. Information on competitors' prices determines the upper-boundary of the price discretion if a firm offers value equal to value offered by one or more competitors. All three types of information are ambiguous. The ambiguous nature of value information is given by the fact that the firm should try to understand the benefits it has created in market offerings the way customers perceive them. Information on costs is ambiguous because firms will not be able to make sensible assessments of costs without making inferences on market size and volume (Nagle and Holden 1995). Competitor information is ambiguous because this information should be interpreted in the light of the competitors' market position relative to other players on the market. Dealing with this ambiguity is a key issue of the analysis stage.

Over time organizations may discover rules of thumb, leading to satisfying results on basis of limited information (Cyert and March 1963). Many of these rules of thumb have been described in literature as pricing methods (Diamantopoulos 1991). A pricing method can be defined as explicit steps or procedures by which firms arrive at pricing decisions (Oxenfeldt 1983). Typical examples include cost-plus pricing by which a standard profit margin is added to the total costs of the product, and competitive pricing, by which the price is determined as a small deviation from the market leader's price.

Pricing methods are a popular topic of research in the pricing literature, especially in the stream based on marketing strategy (Abratt and Pitt 1985; Antilla and Möller 2000; Coe 1990; Frambach, Nijssen, and Van Heddegem 1997; Hooley, West and Lynch 1981; Noble and Gruca 1999a; Piercy 1981; Tzokas, Hart, Argouslidis and Saren 2000; Udell 1972). Results from these studies however should be interpreted carefully, because: (1) many surveys make respondents chose for a single type of information, whereas price decisions often are based on more than one type (Edwards 1952; Foxall 1972; Hall and Hitch 1939; Noble and Gruca 1999a); (2) in retrospect managers may tend to explain their price decisions in cost-plus terms even though they used various types of information (Edwards 1952; Foxall 1972); (3) questionnaires don't always include all three types of primary information: costs, customer value and competition; (4) managers may interpret the terms used to indicate pricing methods wrong since they are not always explained in questionnaires; (5) some are conceptually inconsistent in that they mix up pricing methods with pricing strategies, the first a method to arrive at a decision, the latter a means to achieve a pricing objective in the market; (6) most studies do not specify the strategic importance of the pricing process they examine, meaning that one respondent could answer questions on basis of a more strategic price setting process while another fills out the questionnaire with a recent tactical price changing process in mind.

Nevertheless, some insights can be derived from the cumulative results of these studies. Table 2.4 reports the findings of those studies that: (1) don't confuse pricing methods with pricing strategies; (2) at least include a market- or customer-based pricing method, a specific competition-based method and a cost-based method; (3) a sample size higher than 50. The often heard conclusion that organizations throughout the last decades base their prices predominantly on costs or generally ignore market information in pricing, is not justified on the basis of this cumulative evidence. The results seem to suggest that in industries with a relatively high capital intensity, prices are based relatively more on costs than in industries with a low capital intensity (Udell 1972; Frambach, Nijssen, and Van Heddegem 1997). Udell (1972) explains a high percentage of firms that base prices on competitors' prices on the basis of the frequent occurrence of oligopolistic market structures. This can be interpreted in R-A terms as a low number of competitors offering relatively equal value to a market or market

segment. As such, the degree to which prices are based on value-, competition and cost-information, seems to be a consequence of industry-specific and market position factors.

4.3 Decision-making

Price decisions are decisions on how the firm aims to turn its market position into financial performance by extracting value from the customer. The final result of a series of price decisions is to arrive at the conditions of payment and the actual monetary amount that the customer will pay for the value obtained in an individual market offering. The information analyzed serves as input to these decisions. A firm that collects more and/or better information on customer value, competition, and costs, and better deals with the ambiguity of this information, is therefore likely to take price decisions that better help the firm in achieving its goals. Several studies indicate that the final authority of price decisions is with higher management or in the marketing department (Abratt and Pitt 1985; Nimer 1976; Frambach, Nijssen, and Van Heddegem 1997).

4.4 Implementation

Implementation is the execution of the decision. In this stage the price becomes visible in the marketplace and enables customers and potential customers to perceive and compare it. Price decisions can be implemented relatively quickly compared to other marketing decisions (Guiltinan and Paul 1985), and it is probably for this reason that the pricing literature paid hardly attention to it. Implementing price decisions however often involves more than just adding or changing a price tag. First, if we see the firm as a coalition of groups with possibly different interests (Cyert and March 1963), price decisions may face opposition in their implementation. Imagine a situation in which sales people do not agree with the price decisions taken in the marketing department or by top management. It is not difficult to imagine that this will lower their commitment to this decision and thus the success of its implementation (Hultink and Atuahene-Gima 2000; Noble and Mokwa 1999). Second, if implementation of a price decision involves negotiations, the success of implementation is partly dependent on negotiation skills of the executor. Third, even changing price tags appears to be a task that requires some effort. Internet outlets of books and compact discs change their price for example more frequently than traditional outlets (Brynjolfsson and Smith 2000).

4.5 Evaluation

In the final stage of the pricing process the role of price in the transaction is evaluated. Day (1994) describes evaluation as learning by observing and evaluating the results of decisions. If the organization during the evaluation stage discovers that performance falls short with the expectations, this may result in a price changing process (Cyert and March 1963). Hague (1971) is one of the few contributions to the pricing

TABLE 2.4
Overview of Studies Comparing Pricing Methods

Author	Measurement	Sample			Results		
		Country	Industries	Size	Value-method	Competition-method	Cost-method
Udell (1972)	Categorical.	US.	Industrial.	485	13.4%	53.4%	25.1% ¹
			Consumer-durables.		15.8%	53.1%	28.2% ¹
			Consumer non-durables.		14.2%	57.1%	27.1% ¹
Piercy (1981)	Categorical.	UK.	Industrial chemicals and instrumentation.	116	39%	23%	38%
Hooley, et al.(1984)	Categorical.	UK.	General.	1547	46.5%	37.6%	16.0%
Frambach, Nijssen, and Van Heddegem (1997)	Multiple item 4-point scales.	Belgium.	Industrial engineering.	45	2.41	1.98	2.83 ^{2,3}
			Industrial chemicals.	39	2.58	2.30	2.46 ³
Tzokas, et al. (2000)	Single item on 5-point scale.	UK.	Industrial exports.	178	2.95	2.93	3.94 ³
Antilla and Möller (2000)	Categorical.	Finland.	Industrial electronics and metal.	182	59%	23%	18%

¹: Percentages do not add up to 100 since the author included the concepts "According to regulations" and "Other" of which the results are not reported here.

²: Significant differences found between the three constructs.

³: Means (these studies use metric in stead of categorical variables).

⁴: This study also included concepts on target ROI and value pricing that we did not report since they are actually a price objective and a price setting respectively.

literature that paid specifically attention to evaluation. He mentions consistently that most firms in his case studies had developed control systems based on market and costs information by means of which price decisions could be evaluated.

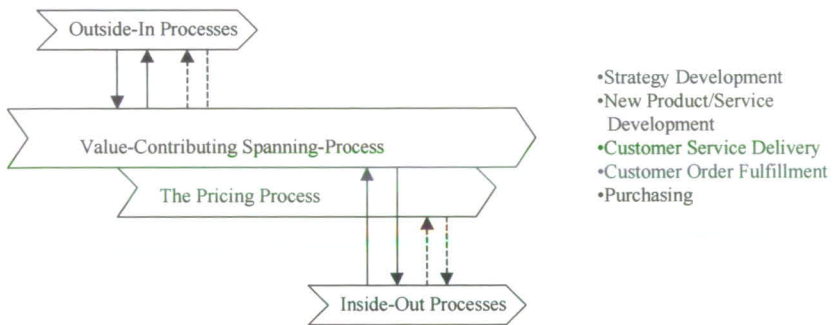
5. PRICING AS A COMPETENCE

A pricing process that leads to a price decision is integrated in the pricing competence. Here, the pricing process is described by its nature of a spanning-process (Day 1994), which leads to a conceptualization of ten different processes that together shape a pricing competence. These processes comprise six different decision areas, of which three bring the firm from the initial to the final price discretion and the other three from the final price discretion to the price decision: how and how much a customer will pay for obtaining a market offering. This will lead to a conceptualization of pricing as an organizational competence.

5.1 Pricing as a Spanning-Process

Day (1994) describes the organization from a competence perspective. Competencies become visible in business processes that span the internal and external environment of the organization. As previously mentioned, the pricing process is typically a spanning process. On the basis of Day's (1994) work, we can portray the pricing process, as in Figure 2.3.

FIGURE 2.3
The Position of the Pricing Process in the Organization



Adapted from Day (1994).

Approaching the pricing process as a spanning-process holds four important implications. First, pricing is affected by outside-in processes, which are processes through which the organization learns from its markets. Second, the pricing process is affected by inside-out processes, processes that relate pricing to the internal environment of the firm. What Day (1994) refers to as inside-out and outside-in

processes can be seen as the deployment of different types of resources, which is enabled by a pricing competence. Third, pricing is not limited to a single business function, but typically cuts across all business functions. Fourth, the pricing process is related to spanning-processes by which the organization builds its market position, i.e. that contribute to the creation of customer value.

Outside-in processes refer to the acquisition, dissemination, interpretation and use of market information (Day 1991; 1994; Moorman 1995; Sinkula 1994; Slater and Narver 1995). These processes inform the organization about the upper-limit of the price discretion (see Figure 2.2), they enable it to target markets and market segments in which the firm can occupy positions of competitive advantage and thus positive price discretions, and they enable it to assess the size of the market. Because market information is ambiguous (Sinkula 1994; Adams, Day and Dougherty 1998), organizational learning from markets is often referred to as an important organizational competence (Day 1991; 1994; Kohli and Jaworski 1990; Sinkula 1994; Slater and Narver 1995). Consistently, Antilla and Möller (2000) find that highly market-oriented companies are more likely to base prices on customer-value information.

The pricing process is affected by the firm's internal environment, in particular by the organization's competencies with respect to financial management and cost controlling. This helps the organization to make more accurate estimations about its resource costs and thus the lower-limit of the price discretion (see Figure 2.2). This proposition is supported by several descriptive contributions to the pricing literature. Bonoma, Crittenden and Dolan (1988) argue that cost-information is important to be included in a pricing process along market factors. Hague (1971) finds that costs are continuously monitored and controlled in the evaluation stage of a pricing process.

By its nature of a spanning process, the pricing process typically cuts across all business functions (Day 1994), meaning that the interfunctional coordination (Narver and Slater 1990) of the process plays an important role. This is supported by an abundance of descriptive work in the pricing literature. These studies describe pricing as a group process (Capon, Farley and Hulbert 1975; Capon and Hulbert 1975; Farley, Hulbert and Weinstein 1980; Hague 1971), that requires close collaboration and free flow of information between different business functions (Capon, Farley and Hulbert 1975; Capon and Hulbert 1975; Farley, Howard and Hulbert 1971; Farley, Hulbert and Weinstein 1980; Sizer 1966), in which informal discussions are at least as important as formal procedures and calculations (Capon, Farley and Hulbert 1975; Edwards 1952; Foxall 1972), and that differs in its degree of formality between different organizations (Hague 1971). An important aspect in which internal and external information should be combined, is the degree to which the firm can assess

market size and thus make assessments to cover its fixed costs (Nagle and Holden 1995).

5.2 Relation with Value-Contributing Processes

Day (1994) distinguishes six spanning-processes: strategy development, new product/service development, customer service delivery, customer order fulfillment, purchasing, and pricing. Pricing is fundamentally different from the other five processes. The other processes, either recognize, create or deliver customer value. Through these processes the organization actually builds its market position. For instance, in a process of Segmenting-Targeting-Positioning, the firm sets out to determine its target market and positions itself in such a way to make effectively use of its resources. In new product/service development the firm actually creates value in reactive or proactive innovations (Hunt and Morgan 1997). In customer service delivery and order fulfillment it actually delivers value to the customer. Purchasing contributes indirectly to the firm's value, because it extends resources through transactions or relations with upstream channel partners. Together we label these processes value-contributing processes, because they all contribute to market positions in that they contribute to customer value and bring about costs.

Pricing on the other hand enables the firm to turn its market position into financial performance by extracting value from the customer. For this reason, pricing is directly related to value-contributing processes. In other words: in each process that the firm recognizes, creates, or delivers value to improve or maintain a market position, the firm should also consider how these efforts will lead to financial performance.

Pricing literature frequently examined how important managers perceive pricing compared to other elements of marketing strategy. Although findings of these surveys differ to a large extent, the importance of price generally doesn't exceed the importance of product or product quality, the main driver of customer value (Frambach, Nijssen, and Van Heddegem 1997; Hooley, West, and Lynch 1984; Myers 1997; Pass 1971; Piercy 1981; Samiee 1987; Udell 1968; 1964). Only Robicheaux (1975) finds price to be perceived as the most important element. He explains these findings on basis of environmental circumstances, such as the inflation, recession and energy crisis of those days. In general, these findings are not inconsistent with the idea that the pricing process occurs in the shadow of processes by which the firm builds its market position.

5.3 Differentiating Pricing Processes

Considering that pricing processes are directly related to different types of value-contributing processes, a pricing competence is constituted of multiple processes. In section 3, we already distinguished between price setting and price changing processes. Whereas price setting processes refer to changes that the firm itself brings

in its market position, price changing processes refer to changes in market positions caused by external parties. Together with Day's (1994) distinction of spanning-processes, we can differentiate ten different pricing processes in organizations (see Table 2.5).

The pricing competence consists of these ten processes and the resources that are leveraged by these processes. There may be different emphasis on the type of decisions taken in different processes. Some processes are for instance more of a strategic nature in that they influence the final price discretion, whereas other processes are more of a tactical nature in which decisions are taken on the actual prices. The pricing literature does not explicitly differentiate these processes, but it does acknowledge the idea that a variety of pricing processes exist in organizations (Capon and Hulbert 1975; Farley, Howard and Hulbert 1971), and it does acknowledge its strong link with marketing strategy (Coe 1990; Dolan 1995).

TABLE 2.5
Framework of Different Pricing Processes with Examples

<u>Value-Contributing Process</u>	<u>Price setting Process</u>	<u>Price Changing Process</u>
Strategy Development	Determining the price discretion when the firm decides to enter a new market.	Redefining the price discretion with a change in market position, for instance when a new entrant enters the market at a superior position.
New Product/Service Development	Determining the price discretion for new products, services or product line.	Redefining a product's price discretion when substitutes enter the market.
Customer Order Fulfillment	Determining a price for a market offering to an individual customer, for instance for tailor-made products like market research.	Renegotiating prices with unsatisfied customers.
Customer Service Delivery	Determining additional payments for extra services delivered to customers. Amazon.com asks for instance additional payments for shipping books more rapidly than regularly.	Offering discounts when service performance falls short, or receiving tips when service delivery is excellent, like in restaurants.
Purchasing	Determining the price discretion when new resources are purchased, e.g. what will a different supplier contribute to the organization in terms of relative value and costs.	Redefining the price discretion when suppliers raise prices, or offer more value than they used to do.

If we see pricing as a competence that includes ten different processes on various strategic levels, decision making in pricing includes more than only a decision on price level and conditions of payment. Similarly, Shankar and Bolton (1999) find that retailers' pricing can be grouped according to a variety of dimensions. Kalyanam and Shively (1998) find that markets respond to prices in complex ways, which is

explained by the fact that price decisions include more than price levels only. Decisions on price signals, portfolio, planning, policies, price, and deviations, can be distinguished (see Table 2.6 and the discussion of this Table in sections 5.4 and 5.5). These decision areas are of a decreasing strategic importance. The first three decision areas are of a strategic nature, in that they put constraints on the price discretion for the firms market offerings. The last three types of decisions are of a tactical nature in that they actually put a monetary value to value delivered in market offerings. Please note that the terminology used here might be different from prior contributions to pricing literature (e.g. Oxenfeldt 1983; Tzokas et al. 2000).

The break up of price decision areas presented here, is different from existing frameworks of price strategies (Noble and Gruca 1999; Tellis 1986). The existing frameworks are based on market and organizational determinants under which organizations are likely to opt for a certain pricing strategy, while this one is based on the nature of the decisions themselves as they occur in processes of a pricing competence. This break up of decision areas provides a link with pricing literature from other perspectives. Strategies, concepts and topics offered by pricing literature can be grouped according to these decision areas. Table 2.7 presents an overview of pricing strategies (as indicated by Tellis 1986), as well as concepts and topics from pricing literature as they are indicated in reviews of pricing literature (Gijsbrechts 1993; Monroe and Della Bitta 1978; Monroe and Mazumdar 1988; Nagle 1984; Rao 1984). In addition, all articles from *Journal of Marketing Research*, *Journal of Marketing*, and *Marketing Science* that include the words price or pricing in their title and were published after the most recent review of pricing literature (Gijsbrechts 1993), were scanned for concepts and topics that could be added to this list.

The aim of Table 2.7 is to present some evidence that the framework developed on the basis of R-A theory is congruent with the topics under investigation in pricing literature. Some concepts and topics could not be included for sound reasons: (1) some refer to pricing practices as they occur in a pricing process rather than to a decision area, such as systematic and intuitive approaches to a pricing process (Monroe and Della Bitta 1978; Rao 1984), and price implementation (Goodstein 1994); (2) **some nonmonetary price components as defined from a customer's perspective** -like perceived sacrifices other than price (Gijsbrechts 1993)-, are not included in price or value concepts from a firm perspective (Hunt and Morgan 1995). In addition, some can be applied to more than one decision area: (1) In random discounting a firms decides to periodically but unsystematically lower its prices for certain groups of customers (Tellis 1986). As such, they are actually decisions of unsystematic price portfolio and planning; (2) concepts such as price encoding, price knowledge and price awareness, refer to signal decisions of pricing (how to be perceived compared to competitors), as well as decisions on the price (like price ending).

TABLE 2.6
Relevance of Decision Areas of the Pricing Processes in Relation to Value-Contributing Processes

	<u>Signal</u>	<u>Portfolio</u>	<u>Planning</u>	<u>Policy</u>	<u>Price</u>	<u>Deviation</u>
Basic question asked during decision process:	Do we want to be perceived as a provider of superior value, lower costs or as equal in both?	How should we divide costs and the value we can offer over different offerings?	How will value and costs of an offering behave over time?	How can we arrive from the final price discretion to a price?	What is the monetary amount that we ask in return for the value we deliver and how is the customer going to pay us?	Should we incidentally deviate from the price we have determined?
Strategy Development	High	High	High	Moderate	Low	Low
New Product/Service Development	Moderate	High	High	High	Moderate	Low
Customer Order Fulfillment	Low	Low	Low	Moderate	High	High
Customer Service Delivery	Low	Low	Low	Low	High	High
Purchasing	High	High	High	Low	Low	Low

TABLE 2.7

Topics, Concepts, and Strategies from Pricing Literature in Relation to Decision Areas

Signal	Portfolio	Planning	Policy	Price	Deviation
<ul style="list-style-type: none"> • Price signaling¹ • Customers' perceptions of quality, price, and value (e.g. choice models, hedonic theory).^{3, 4, 5, 6} • Reference price^{2, 6} • Price awareness, knowledge, and recall⁶ • Asymmetric information, e.g. self-enforcing agreements⁴ • Economics of spatial competition (positioning)⁴ • Pricing superstars⁴ 	<ul style="list-style-type: none"> • Second market discounting¹, including identification of deal prone segments⁴ • Random discounting¹ • Geographic pricing¹ • Price bundling¹ • Complementary pricing¹, including two-part pricing⁴, loss leadership⁶ • Premium pricing¹ • Image pricing¹ • Price discrimination models² • Related products models^{2, 3, 5, 6} • Product-line change models^{2, 5, 6} • Models with interdependent demand^{2, 3} • Determining customers' price differentials² • Pricing across distribution channels^{3, 4} • Economics of segmented pricing⁴ 	<ul style="list-style-type: none"> • Periodic discounting¹: e.g. price skimming^{2, 4} and priority pricing⁴ • Random discounting¹ • Penetration pricing^{1, 2, 4} • Experience curve pricing^{1, 3, 4} • Predatory pricing¹ • Dynamic pricing models^{3, 5, 6}, e.g. models incorporating changes in demand-price relationships over time (product lifecycle)² • Models on price changes of mature products² • Peak-load pricing⁴ • Pricing when facing a used product market⁴ • Long-run effects of price promotions⁶ 	<ul style="list-style-type: none"> • Delegating price authority to the sales force³ • Bidding processes³ • Interactions between manufacturers and retailers⁶ • Sales versus leasing decisions (asymmetric information)⁴ • Price negotiations⁹ • Delegating price decisions to external parties¹⁰ 	<ul style="list-style-type: none"> • Methods for estimating demand, value and costs² • Classic microeconomic model of price determination for a single product maximizing short-term performance, as well as extensions of this model^{2, 3, 5} • Game theoretic and Bayesian decision models on the use of price level as a competitive tool² • Price levels in relation to other marketing mix variables^{3, 5} • Price elasticity/price sensitivity⁴ • Monetary effort⁶ • Price awareness, knowledge, and recall⁶ • Price encoding, e.g. price ending⁶ • Currency choice⁷ 	<ul style="list-style-type: none"> • Models on price promotions (discounts, coupons, etc.)^{2, 3, 5, 6} • Cash discount and credit policy models² • Quantity discount models^{2, 3, 6} • Dealing (temporary price cutting)⁴ • Price-matching refund policies⁸

¹ Tellis (1986), ² Monroe and Della Bitta (1978), ³ Rao (1984), ⁴ Nagle (1984), ⁵ Monroe and Mazumdar (1988), ⁶ Gijbrecchts (1993), ⁷ Samiee and Anckar (1998), ⁸ Jain and Srivastava (2000), ⁹ Srivastava, Chakravarti, and Rapoport (2000), ¹⁰ Bhardwaj (2001).

5.4 Determining the Final Price Discretion

To determine a price for an individual market offering, the firm should first assess the price discretion of that market offering. The first three decisions relate to the firm's productline in general and bring the firm from its initial price discretion to the final price discretion of individual offerings.

Price signals relate to the type of market position the firm wants to occupy with a specific brand or productline. Does it want to be perceived by customers as a provider of superior value, lower costs, or as equal in both compared to competitors? In addition, a firm may decide to cover costs of its high-value brand by a low-value brand or vice versa. This decision may have long-term consequences for the final price discretion of individual market offerings. Typical examples of companies expressing with their price that they are able to deliver high customer value to their target market are Rolls Royce and Harley Davidson. These companies will face limitations with respect to their price floor: if their prices drop below a certain level it may harm the entire corporate image. A company like Easy Jet on the other hand will face limitations with respect to its price ceiling: if it raises prices above a certain level compared to competitors, the corporate image will be harmed as well.

Given the strategic nature of price signal decisions, they are likely to strongly relate to a strategy development process, and to some extent new product/service development (see Table 2.6). It also strongly relates to purchasing, i.e. if the firm obtains new resources it should ask itself how these resources will contribute to the creation of value, and how it will cover costs of the purchase in its pricing.

Price portfolio. When deciding on price portfolio, the firm decides how it distributes the value it can offer over different market offerings that may or may not be targeted at different markets or market segments. Next, it decides on how it distributes costs over these offerings. Price portfolio can be defined as the set of price options as it is defined by the firm from which target customers may choose. As such, price portfolio decisions also include geographical price differentiation and offering different bundles of products and services to different market segments. Prominent examples of price portfolios can be found at information sellers on the internet (Shapiro and Varian 1998). Forrester.com for example, uses a set of options that represent different amounts of customer value. Basic or outdated information is delivered for free to customers, while the most expensive option includes free entrance to all information and tailor-made services. Between these extremes customers may choose for several options that represent different amounts of value and are offered at different prices. Another prominent example is Microsoft's bundling of Windows and Internet Explorer (Stremersch and Tellis 2002). Decisions on price portfolios can also be part of a price changing process. With the introduction of the Euro, several companies found out that their geographic price portfolio became outdated. Instead of delivering

the same product to different countries at different prices in different currencies, they now decided to deliver slightly different products - e.g. adjusted to specific regional preferences - at different prices in the same currency (Ingenbleek and Van Wychen 1998). Finally, in the airline industry, many firms decided to define each chair on each flight as a market offering, thus enabling them by setting different prices for comparable chairs on the same flight, depending on among others the time of purchase and flexibility in booking a return flight.

Price portfolio decisions are typically related to segmenting markets, selecting target markets and positioning market-offerings on those markets, which is a part of strategy development. It also has some implications for new product development and purchasing. New product/service development creates new value, but the product has not necessarily to be launched at a single price. It may be sold at different prices to different markets, become part of a price bundle, or it can be divided in different offerings for instance as a core product and additional attributes. In purchasing, the firm should consider what specific purchases contribute to the value and costs of specific market offerings. For example, it should consider how certain fixed costs are attributed to product lines or market offerings.

Price planning relates to competition as a dynamic process. Positions of relative value and/or relative costs may change over time, due to competitors' actions, changing value-perceptions, increasing price sensitivity, government legislation, inflation, etc. In price planning decisions the firm anticipates to the question how the relative value and costs of a market offering will behave over time? For example, prices of consumer durables considerably drop once new generation products replace them (Bayus 1992). In a penetration pricing strategy, prices are initially set low to increase the rate of product adoption, which increases value and gives way to future price rises. If learning curve effects are expected to bring down costs over time, the firm may launch a product at a lower price that is kept stable when the profit margin increases (Tellis 1986).

Price planning decisions are typically related to strategy development with respect to **the future portfolio of the firm**, new product/service development with respect to the launch of new products/services and to purchasing with respect to future changes in value or costs.

5.5 Determining Prices

Whereas decisions on price signals, portfolios and planning bring an initial price discretion to a final price discretion, decisions on policies, price and deviations determine how and how much a customer will pay for obtaining a market offering.

Price policies are means of arriving from a final price discretion at a price. The basic question asked during a decision on price policies is how the firm can determine a monetary amount within its final price discretion. A typical example of a price policy is list prices and net prices. The company uses list prices as a starting point in negotiations and arrives finally at its net price: the price the buyer will pay. Other examples of price policies include long-term contracts with fixed prices, auctions, or contracts in which a certain percentage of the customer's increase in turnover is promised. Price policy decisions connect more strategic decisions on price signal, portfolio, and planning with more tactical decisions on price and deviation. Therefore, they relate in particular to new product/service development, and to some extent to a strategic process like strategy development and a tactical process like customer order fulfillment.

Price includes the amount of money that is asked from a customer in return for the value delivered in a market offering, as well as the conditions of payment. As such, the basic questions asked during a decision on price are: How much money should we ask for the value we deliver to the customer and how is (s)he going to pay us? As in the example of list and net prices, the decision on price is the final setting of the net price and determination of conditions of payment, while the list price and negotiations are the policy through which the company arrives at this price. Price decisions most likely relate to tactical processes like customer order fulfillment and customer service delivery, and to some extent to new product/service development.

Price deviations are incidental deviations from a prior decision on price. Distinguishing incidental changes from permanent changes is important since permanent changes are caused by permanent changes in the final price discretion. The basic question is whether the firm should incidentally rise or drop its price and/or deviate from its conditions of payment? If the answer to this question is "yes", another decision on price will follow. The most common example of a deviation is a discount. Firms may take considerable advantages from discounts (Day and Ryans 1988). Discounts may take a variety of forms including trade discounts, quantity discounts, cash discounts and rebates (Tzokas, Hart, Argouslidis and Saren 2000). Incidental price rises however are also an option, for instance when the firm's production capacity is full and it only wants to accept new orders if it makes substantial additional profits. In addition, firms may incidentally deviate from their standard conditions of payment, like increasing or decreasing the credit given to a customer. Price deviations typically relate to tactical processes like customer order fulfillment and customer service delivery.

5.6 Conceptualization of Pricing as an Organizational Competence

Pricing is a competence that enables a firm to turn a market position into financial performance by extracting value from the customer. Firms arrive at prices for market

offerings in three steps (see Figure 2.4). First, they determine the initial price discretion by estimating its floor on basis of costs and its ceiling on basis of customer value. Second, they determine the final price discretion on the basis of prior or new decisions on price signals, price portfolios and price planning. Third, they arrive at prices through decisions on price policies, price and possibly price deviations. If they go through these processes successfully, customers will perceive the market offering - as a combination of value and price- as valuable to them. If the customer purchases the market offering, the firm receives a monetary amount in exchange for the value delivered to the customer, and achieves financial performance.

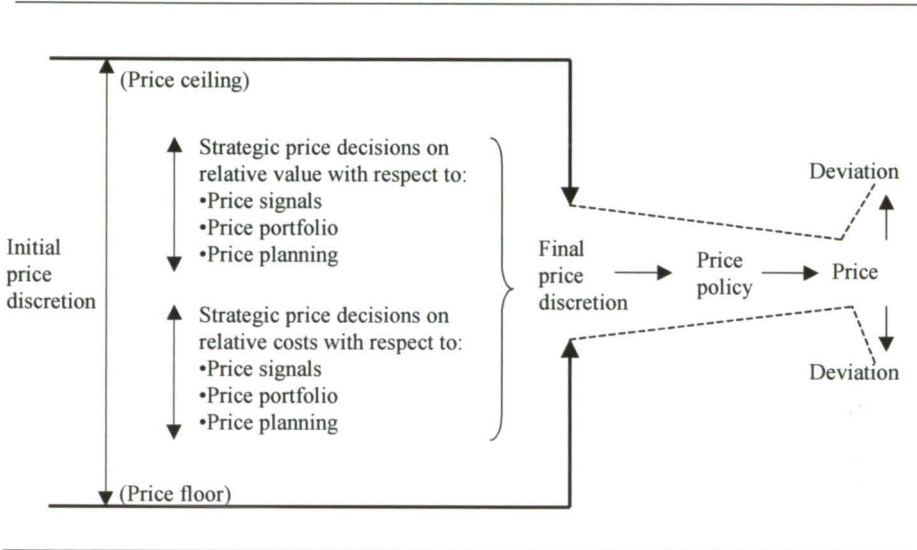
The first step in which the price ceiling and floor are determined will be improved by strong competencies that Day (1994) refers to as inside-out and outside-in processes. A strong competence in market learning increases the firm's understanding of the customer's value perception, thereby improving the firm's estimates of what the offering is worth to the customer. It also improves assessments of the size of the market, thereby providing necessary information to assess the portion of fixed costs that should be covered in individual market offerings. A strong competence in costing, provides the firm with better estimates of variable costs, as well as fixed costs that should be covered over the entire product line.

Strategic price decisions with respect to signals, portfolio and planning, limit the range of possible prices to the final price discretion. These decisions are related to processes by which the firm actually builds its market position. This market position is determined by the relative value and relative costs, which are themselves consequences of the firm's relative resources. Thus, the final price discretion is influenced by decisions on: (1) the market position that the firm strives to possess (price signals); (2) how it defines its market offerings and divides value and costs over them (price portfolio); and (3) how it anticipates on future changes in relative value and costs (price planning). The outcomes of these decisions will determine the final price discretion and thus in the end the degree to which the firm turns its market position into financial performance.

These decisions may again be improved by strong competencies in outside-in and inside-out processes. A strong competence in market learning will make the firm more aware of the value it is able to deliver on basis of its resources. It will enable the firm to define market offerings that match the customers' wants and needs in superior ways. It will enable the firm with superior insights on how the value it offers is likely to be affected by competitors, changing customers perceptions and other external influences. A strong competence in costing, enables the firm with a better understanding of its relative costs position. It will be able to keep track of its cost position if fixed costs are covered in complex ways, like dividing them over different

market offerings depending on market expectations. It will also be more able to plan costs over time.

FIGURE 2.4
Decision Areas of the Pricing Competence



The final price discretion represents a range of possible prices. The firm will arrive at a final price (the monetary amount a customer pays for a market offering and the conditions of payment) by decisions on price policy, price and deviation. Also these decisions are positively supported by strong competencies in outside-in and inside-out processes. A strong competence in market learning enables the firm to choose a price policy that is more likely acceptable to a customer. It will arrive at acceptable price levels and conditions of payment and it will give discounts at strategic moments to keep customers satisfied and build relationships with them. A strong competence in costing decreases the chance that mistakes are made in pricing policies and prices. It informs price negotiators accurately on the price floor of the final price discretion and monitors that prices do not drop below this floor. It may also inform about the firm's financial ability to drop prices incidentally.

In the dynamic process of competition, market positions change over time. This may hit hard on the firm's financial performance since prices may no longer be within the final price discretion. Continuous scanning of customers, competitors and factors affecting them (Day 1994) and continuous cost controlling detect possible changes in market positions early. As such, a firm with a strong pricing competence understands early the consequences of these changes for the decisions it took on price signals, portfolio and planning. If this changes the final price discretion of a market offering in

such a way that the price is no longer between the price ceiling and the price floor, a price changing process is a necessary consequence.

6. CONCLUSIONS

This chapter offers an attempt to integrate pricing in R-A theory, thereby developing a perspective on pricing that (1) pays respect to the complexity of pricing as it occurs in organizational practice; (2) provides links with other streams of pricing research in stead of excluding them; (3) offers a basis to develop normative statements about the success of pricing practices; and (4) relates pricing to the creation of customer value.

Complexity. The R-A perspective on pricing offers an explanation for the complexity of pricing in organizational practice because of four reasons. First, pricing is a competence and thus complex by definition (see also Dutta, Zbaracki, and Bergen 2001). It is rooted in an organizational culture, constitutes organizational routines, skills and knowledge, can be learned, and thus may improve or get worse over time (Day 1994). Pricing processes require input from both the firm's internal and external environment. As such, pricing is a process that spans multiple organizational functions. This explains results from case studies that emphasize the interfunctional nature of pricing (e.g. Hague 1971).

Second, prices are constrained by value and costs dimensions of a market position. In a pricing competence, it is perhaps the biggest challenge of a firm to understand these limits of the price discretion. The upper-limit can be assessed by a quantification of the customers' perception of benefits offered. Information on customers' perceptions is often ambiguous and thus difficult for organizations to learn from (Adams, Day, and Dougherty 1998; Sinkula 1994). The lower-limit is determined by costs. Costs however are not unambiguous either: the firm will need a thorough understanding of the market in order to **take wise decisions with respect to their fixed costs**. Understanding the limits of the price discretion is however of major importance, since price directly affects performance. This explains why **managers perceive pricing as important** (Frambach, Nijssen and Van Heddegem 1997; Hooley, West and Lynch 1984; Myers 1997; Pass 1971; Robicheaux 1975; Samiee 1987; Udell 1964; 1968).

Third, complexity is increased even further because of the fact that market positions and thus price discretions are not stable over time. As an integrated part of R-A competition, pricing is affected by the same forces that affect the process of competition in general, such as customers, suppliers, competitors, societal resources and institutions and public policy. The idea of prices being constrained by value and costs (Monroe 1990), also explains why prices don't change as often as suggested by economic theory (Blinder et al. 1998): prices don't necessarily change before they are

no longer within the price discretion that is determined by relative value and relative costs. Next, it explains why a position of competitive disadvantage yields inferior financial performance: it has a negative price discretion because it has relatively higher costs and relatively lower value.

Fourth, pricing is complex because a pricing competence is not just a single spanning process, in stead it can be conceptualized as an organizational competence that constitutes 10 different organizational processes (both price setting and price changing with respect to strategy development, new product/service development, customer order fulfillment, customer service delivery, and purchasing), and six decision areas of varying strategic levels. Virtually every activity of a firm that contributes to value and brings about costs, has implications for pricing, since it affects the price discretion. Firms that master the pricing competence, understand the implications for pricing of strategic and tactic marketing decisions, with respect to price signals, portfolio's and price planning.

Links with pricing research. A R-A perspective on pricing does not reject pricing research from any other perspective. R-A theory includes perfect competition theory as a specific case (Hunt and Morgan 1997), and so does a pricing perspective from R-A theory. More important, pricing research from perspectives other than the firm perspective based on R-A theory can relatively easy be categorized according to the six decision areas in the pricing competence. Approaches in pricing research tend to focus on a single decision area, which explains why managers often argue that their pricing job is more complex than the topics examined by academics. The conceptualization offered here could help managers in finding appropriate literatures as helpful tools for specific aspects of pricing as faced by firms.

Basis for normative statements. Although the purpose of this chapter is to develop a theoretical perspective on how pricing is done in firms and not how it should be done, normative statements can be developed on the basis of a R-A perspective on pricing. It explicates the relationships between resources and the pricing competence, between organizational learning in the process of R-A competition and the pricing competence, between the pricing competence and price, between market positions and price, and between price and performance.

Relation with customer value. The R-A perspective on pricing brings both price and pricing in relation with the creation of customer value. First, it relates price to market position, which is determined by the value created by the firm relative to its competitors and by the relative costs that the creation of value brings about. Second, it relates pricing to the creation of customer value, in that the pricing competence is constituted of organizational processes that are directly related to processes through which the organization creates value. Each organizational process that contributes to

the firm's value creation, implies the existence of a related process focussing on the firm's "value extraction" (Dutta, Zbaracki, and Bergen 2001, abstract). Thus, the R-A perspective on pricing implies that pricing should be seen as a financial reward for creating customer value. This reward will not appear by itself, it requires a pricing competence. The stronger the competence, the higher the rewards.

6.1 Implications for Empirical Studies

On the basis of the theoretical outline in this chapter, some implications can be derived that give guidance to the following empirical chapters.

Since a pricing competence is comprised of ten different organizational processes, it is important to study organizational pricing behavior not in general, but to define the strategic level of the pricing process. Competition from a R-A perspective is essentially non-price competition: firms can improve their market position by introducing innovations to the market. New product pricing is probably the most complex price decision (Shapiro and Jackson 1978). As compared to price change processes, price-setting processes have relatively little input from information collected to make and evaluate prior price decisions. Next, there is much at stake in new product pricing: all efforts of creating value in innovations that were intended to improve the firm's market position and consequently financial performance. For these reasons the context of new product pricing is given priority in the following chapters.

Even when limited to new product price decisions, a price decision is more than a decision on price level. A new product price setting includes or is affected by decisions on price signal, portfolio, planning, policy and level. Since our focus is on the practices and resources by means of which firms may arrive at successful price decisions, we will not study these in detail. Instead, we will treat price decisions as a "black box", and directly relate pricing practices to performance measures. This is important to keep in mind when results of these empirical studies are interpreted.

According to R-A theory new products are intended to improve a market position in order to achieve (superior) financial performance. Performance, or the success of a price decision thus can't be measured in terms of profit maximization. Rather it is measured by the degree to which price objectives -or objectives of the new product in general- are achieved.

A large variety of pricing practices can be conceptualized. However, most pregnant is research on those practices that provide direct tools for managers. Primary pricing information (on costs, customer value and competition) is information on the market position and can be used to assess initial monetary amounts, thus providing a direct tool for managers to have an indication of the price discretion of their market

offerings. For this reason, the following chapters focus on three pricing practices with respect to the use of cost, value and competition information.

Chapter 3:

Successful Pricing Practices in a Customer Value Context¹

'How to price a new product is a top-management puzzle that is too often solved by cost-theology and hunch.'

Joel Dean, 1950.

1. INTRODUCTION

In this chapter, we will make three contributions to empirical pricing literature. First, our study is the first to examine the success of three pricing practices with respect to different types of information used in a pricing process (respectively on costs, customer value and competition). Second, we will do so in relation to the customer value context: the relative customer value offered by new products and the degree of sustainability of this value. The theoretical foundation for this is provided by R-A theory (Hunt and Morgan 1995; 1997). Third, our study comes across several measurement issues that may have influenced prior surveys on pricing practices.

We will present data from industrial capital industries. These industries offer a relatively “clear-cut” pricing situation, since products developed in these industries generally serve few customers, require high investments, and are purchased in group process by industrial customers that are generally well informed (Anderson and Narus 1999). Our data offer an interesting comparison with Noble and Gruca’s (1999a) findings. Noble and Gruca (1999a) apply Tellis’ (1986) framework of pricing strategies to an industrial context and empirically test the use of pricing strategies and their determinants on a sample of industries comparable to those presented in this chapter. With their study, Noble and Gruca (1999a) help to overcome the lack of empirical validation of pricing theory (Monroe and Mazumdar 1988). Their research effort made clear that our understanding of organizational pricing behavior is still far from complete (Cressman 1999; Noble and Gruca 1999b). In a commentary to the

¹ With Marion Debruyne, Ruud T. Frambach, and Theo M.M. Verhallen.

article, Cressman (1999) raised three important issues regarding Noble and Gruca's (1999a) findings. First, Cressman expresses worries about the high percentage of firms in Noble and Gruca's (1999a) sample that engages in cost-based pricing (56 %), suggesting that these firms are ignorant towards the market in price decisions. Although Coe (1990) shows that an increase of cost-based pricing goes hand in hand with a decrease of innovation strategies, there is little or none empirical evidence on the use of costs and other types of information in pricing. Second, Cressman raises a definition question: What is value(-based) pricing? Does value-based pricing refer to a pricing strategy as "a means by which a pricing objective is to be achieved" (Noble and Gruca 1999a, p. 436), or does value-based pricing refer to the use of information on customer value in a pricing decision? Third, Cressman stresses that empirical pricing literature does not provide studies on *successful* pricing practices in relation to the firm's efforts to create customer value.

The third issue is of special importance because it does not relate to research findings or definitions of concepts, but to the relevance of the research question itself. Rather than examining to what extent firms base prices on customer value, costs, or other information, Cressman actually argues that researchers should examine under which value-creating conditions the use of this information leads to successful pricing decisions. As described in chapter 1, this comment is in line with prior calls for research on how firms set prices (e.g. Bonoma, Crittenden, and Dolan 1988; Monroe and Mazumdar 1988; Oxenfeldt 1973; Rao 1984).

Our results reveal that the success of information on value, competition and costs is contingent on the relative value offered by a product, as well as on the degree to which value is sustainable in the market. This suggests that there is no general "bad" or "best" practice with respect to the type of information used in price decisions. In the next section we will introduce the concepts included in our study. Next, we use resource-advantage theory (Hunt and Morgan 1995) to formulate hypotheses on the conditions under which information on costs, competition and customer value contribute to successful price decisions. The hypotheses are tested on 77 introductions of industrial capital goods. The empirical method and results are presented next. In the discussion section we will discuss why Noble and Gruca's (1999a) results may be influenced by several measurement issues, and how they should be interpreted in the light of the findings obtained in our study.

2. CONCEPTS

Pricing practices. Pricing practices should be distinguished from pricing objectives and pricing strategies. Pricing objectives refer to what the firm is trying to accomplish with its price setting, and pricing strategy refers to the means by which a pricing

objective is to be achieved in the market (Noble and Gruca 1999a). Pricing practices on the other hand, refer to the set of activities executed by an organization's managers that lead to a price decision. They occur in the context of an organizational process in which information is gathered, disseminated, interpreted, and used, leading to decisions on signals, portfolio, planning, policies, and prices (see chapter 2). Thus, whereas pricing strategies are visible in the market in the form of price changes, price bundles, price levels within a product line, or otherwise, pricing practices are hidden behind the boundaries of the organization. Prior contributions to empirical pricing literature (e.g. Tzokas, Hart, Agroulidis and Saren 2000) often use the term pricing methods to indicate the activities by which firms arrive at price settings. Since the term pricing methods is often interpreted as mutually exclusive methods, we prefer the term pricing practices, which is in line with the evidence that firms use different types of information to a certain degree in a price decision (e.g. Bonoma, Crittenden and Dolan 1988; Hague 1971; Foxall 1972; Pearce 1956).

In chapter 2, pricing is described as a competence. A pricing competence enables the firm to deploy resources of various kinds in ways that it (1) understands its price discretion, and (2) enabled with this knowledge can take successful price decisions that help the firm achieve its goals. Information on the price discretion is key to the firm's understanding on the range of acceptable prices, and therefore key to successful decision making. By learning on the market position that the firm aims to occupy with the new product, the firm creates access to three types of information that may enhance its understanding of the price discretion: value, competition, and costs. Whereas, information on value and costs provide the firm with a better understanding of the upper- and lower-limit of the price discretion, competition information helps the firm to assess its relative position as compared to competitors. The latter is particularly important if the firm launches a product that offers equal value as compared to competitors. In this situation, the upper-limit of the price discretion is determined by the competitor's offering.

All three types of information can be used to assess quantifications. Customer value information informs the firm about the question: What is our product worth in the customer's perception? This can be quantified by assessing the monetary amount that customers are willing to pay for the sumtotal of all benefits they will receive if they accept the market offering (Hunt and Morgan 1995; Nagle and Holden 1995). In the context of industrial capital goods these may be cost savings or increases in productivity that the purchasing company experiences if it adopts the product (e.g. Anderson and Narus 1999).

Competition information informs the firm about the question: How and how much do competitors' charge for the value they offer? Quantitative assessments on the basis of this type of information can be made by interpreting competitors' prices in the light of

their relative market position. For example, competitors' products that offer slightly more value, are likely to lead to assessments slightly below the competitor's price. Competition information may be important because customers may use prices of competitors' offerings as reference prices in their purchase decisions (e.g Kalwani, Yim, Rinne, and Sugita 1990; Rajendran and Tellis 1994). A price that is strongly based on competitor information will therefore be comparable to competitors' prices in every possible way, including its price level, conditions of payment, price structure, price policy, etc.

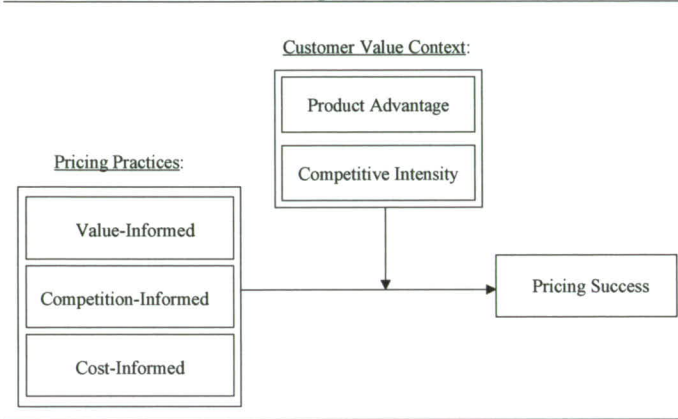
Costs may lead to assessments of prices by quantifying the variable and fixed costs with respect to the development, production, and marketing of the new product. It informs the firm about the question: What's the bottom-line for our price in order to be profitable? Including information on fixed costs in addition to information on variable costs is important to determine the firm's relative costs position. Fixed costs however increase the ambiguity of cost information since they only can be assessed on the basis of accurate assessments of the expected volume (Nagle and Holden 1995). This type of information may play an important role in strategic price decisions by which the firm arrives at the final price discretion (chapter 2).

In the context of a pricing process, firms are likely to use all three types of information to some extent, rather than to focus on a single one. This implies that the use of customer value, competition and cost information, should be seen as something of degree, rather than mutually exclusive categories. For this reason we will use the terms cost-informed, competition-informed, and value-informed pricing, instead of cost-based, competition-based and value-based pricing. This conceptualization is in line with Noble and Gruca's (1999a) finding that firms combine cost-based pricing with market-based pricing strategies.

Note that we specifically argue that quantifications on the basis of these types of information are *assessments*. Information, on value, competition, and costs is ambiguous (see also chapter 2). This explains why price decisions taken on the basis of information that enables the firm with a superior understanding of the price discretion, are more likely to be successful price decisions: the quantitative assessments on which the final price decision is made are more accurate. These initial quantifications are particularly important in a new product price setting process since the firm starts with a clean sheet of paper to determine the product's price. As such, we expect that value-, competition-, and cost-informed pricing will affect pricing success, as indicated in Figure 3.1.

Pricing success. Since a pricing process generally starts with determining pricing objectives (Diamantopoulos 1991; Hague 1971), we define pricing success accordingly as the degree to which pricing objectives are achieved.

FIGURE 3.1
Conceptual Framework



Customer value context. Since pricing occurs in the shadow of processes by which the firm leverages its resources to create customer value at the expense of resource costs (see chapter 2), we expect that the degree to which pricing practices contribute to pricing success is contingent on the customer value context. Although more variables could be included in a customer value context, our study focusses on those two variables that are most fundamental in the struggle for market positions of competitive advantage: relative product advantage and competitive intensity. First, relative product advantage refers to the sumtotal of all benefits customers perceive to obtain if they accept the market offering, compared to competitors' products. As such, it refers to the relative value the product offers (Hunt and Morgan 1995). Together with relative resource costs, relative value determines the market position of firms (Hunt and Morgan 1995). Our study focusses on the product level, on which relative product advantage is the equivalent of relative value offered by a product. In addition to R-A theory, many authors in marketing strategy argue that the creation of customer value is key to the firm's struggle for competitive advantage (Day and Montgommery 1999; Slater 1997; Woodruff 1997). Consistently, it is found to be a strong predictor of new product performance (Henard and Szymanski 2001).

Competitive intensity refers to changes in the marketplace as a consequence of competitors' actions. It relates to the degree to which relative product advantage is likely to be sustainable. To R-A theory the velocity of the process of R-A competition is of major importance, since an ongoing process in which firms struggle for a comparative advantage in resources to strengthen market positions by launching innovations to the market, positively affects productivity and economic growth (Hunt 2000a). The pace of this process is essentially reflected by the competitive intensity on a market as it is faced by the firm. Under conditions of high competitive intensity, created customer value erodes faster since the velocity of the process of R-A

competition is higher. For example, a product representing a high degree of advantage that contributes at its launch to a competitive position in cell 3 in Figure 1.3, is in a highly competitive market pushed to cell 2 when a competitor launches a reactive innovation, or even to cell 1 when a competitor introduces a proactive innovation. Also other authors in marketing strategy see competitive intensity as the key variable that erodes the customer value created (Day and Montgomery 1999; Homburg and Pflesser 2000). In the next section we will formulate hypotheses on how these dimensions moderate the relationship between value-, competition-, and cost-informed pricing and pricing success.

3. HYPOTHESES

According to resource-advantage theory (Hunt and Morgan 1995; 1997), a firm strives for superior financial performance by enabling its resources to capture a position of competitive advantage in a certain market or market segment. This position is captured: (1) if the firm creates more customer value than competitors do at lower or equal costs compared to competitors, or (2) if the firm creates equal customer value compared to competitors at lower costs. This situation is represented in Figure 1.3 by cells 2, 3 and 6. Firms can improve their competitive position by introducing proactive or reactive product innovations to the market. Proactive innovations offer superior customer value and reactive innovations offer customer value equal to competitors (Hunt and Morgan 1997).

TABLE 3.1
Hypotheses on the Success of Pricing Practices in Different Situations of Value Creation and Sustainability^a

Customer Value Context:	High relative product advantage	High competitive intensity	High relative product advantage and high competitive intensity
Pricing Practice:			
Value-Informed	1 +	2 -	3 0
Competition-Informed	4 -	5 0	6 -
Cost-Informed	7 -	8 +	9 0

^aRead: (cell 1) the higher relative product advantage, the more value-informed pricing contributes to pricing success.¹

Value-, competition-, and cost-informed pricing all may positively affect pricing success, but the degree to which they do depends on the customer value context of the product. Table 3.1 distinguishes between three customer value contexts: (1) high

¹ This formulation is in line with what Schoonhoven (1981, p. 352) calls “multiplicative” in her discussion of functional forms in contingency theory.

relative product advantage; (2) high competitive intensity; and (3) high relative product advantage *and* high competitive intensity.

First, value-informed pricing informs the firm about the ceiling of the price discretion. This type of information typically contributes to a better understanding of the price discretion if the upper-boundary of the price discretion is not comparable to competitors, i.e. if the products offers superior relative product advantage. Thus, the higher the relative product advantage, the more value-informed pricing will contribute to pricing success (cell 1). Under conditions of high competitive intensity, relative value is likely to erode faster thereby bringing down the upper-boundary of the price discretion. In this situation, value-informed pricing will contribute less to a better understanding of the price discretion. Thus, the higher competitive intensity, the less value-informed pricing will lead to pricing success (cell 2). In the situation that a product with a high advantage over competitors' products is launched in a market with intense competition, both effects are likely to occur: the effect of value-informed pricing will increase because of the high relative product advantage, but at the same time it will decrease because of the intense competition. This means that the effect of value-informed pricing on pricing success is not expected to increase or decrease under this condition (cell 3).

- H₁: The higher relative product advantage, the stronger the effect of value-informed pricing on pricing success.
- H₂: The higher competitive intensity, the weaker the effect of value-informed pricing on pricing success.
- H₃: The higher relative product advantage and competitive intensity, the effect of value-informed pricing on pricing success will not be stronger or weaker.

Second, competition-informed pricing informs the firm about the ceiling of the price discretion if the product is directly comparable to a competitor's product, i.e. if the product is a reactive innovation. In this situation, the understanding of the price discretion will increase by competition-informed pricing, since the upper-limit of the price discretion can be assessed by interpreting the competitor's price in the light of its market position. Vice versa, if relative product advantage is high, the upper-boundary of the price discretion is hard to assess on the basis of competition-informed pricing. Competition-informed pricing only tells the firm that the price may be higher than the alternative offered by the competitor, but how much higher? Thus, the higher relative product advantage, the weaker the effect of competition-informed pricing on pricing success (cell 4). Competitive intensity is not expected to affect the success of competition-informed pricing (cell 5). Competitive intensity will not make the product more comparable or less comparable to the existing alternatives on the market. For this reason, the firm's understanding of the price discretion will not be stronger or weaker depending on the competitive intensity of the market in which the product is

launched. Under the condition of high relative product advantage and high competitive intensity, this means that we expect to find a negative effect (cell 6).

- H₄: The higher relative product advantage, the weaker the effect of competition-informed pricing on pricing success.
- H₅: The higher competitive intensity, the effect of competition-informed pricing on pricing success will not be stronger or weaker.
- H₆: The higher relative product advantage and competitive intensity, the weaker the effect of competition-informed pricing on pricing success.

Third, cost-informed pricing informs the firm about the lower-limit of the price discretion. As such, cost-informed pricing will contribute more to pricing success when the bottom-line determines whether the product will capture a position of competitive advantage or not. If the product offers equal value as compared to competitors' products, the product only occupies a position of competitive advantage -and thus a positive price discretion- if the product is produced at lower costs (cell 2 in Figure 1.3). If the product offers lower value as compared to competitors products, the product should be produced at lower costs and should be lower priced (cell 1 in Figure 1.3). Thus, information on the lower-boundary of the price discretion becomes more important if the product offers lower relative advantage. For this reason we expect: the higher relative product advantage, the weaker the effect of cost-informed pricing on pricing success. (cell 7). In a situation of high competitive intensity, danger exists that the product is pushed to a position of lower value, in which it only contributes to a position of competitive advantage if the price can be dropped (cell 1 in Figure 1.3) (Hunt and Morgan 1995). In order to anticipate this situation, the firm will need a thorough understanding of the lower-boundary of the price discretion. Thus, in situations of high competitive intensity, the effect of cost-informed pricing on pricing success is expected to increase (cell 8). Finally, if a product is launched with a high advantage over competitors' products in a market with intense competition, we expect that the negative effect of relative product advantage is neutralized by the positive effect of competitive intensity on pricing success (cell 9).

- H₇: The higher relative product advantage, the weaker the effect of cost-informed pricing on pricing success.
- H₈: The higher competitive intensity, the stronger the effect of cost-informed pricing on pricing success.
- H₉: The higher relative product advantage and competitive intensity, the effect of cost-informed pricing on pricing success will not be stronger or weaker.

4. METHOD

4.1 Data Collection and Sample

Like in Noble and Gruca's (1999a) survey, a questionnaire was developed focussing on the latest new product development and launch in which the respondent's company had been involved. This approach avoids the critique on studies examining overall pricing objectives and strategies (Diamantopoulos 1991). Questionnaires were mailed to the marketing or general manager in the company.

A questionnaire was mailed to 590 firms drawn from a comprehensive Belgian industry database. The respondents were contacted by telephone prior to the mailing in order to request co-operation. After receipt of the questionnaire, a recall-phone call was made and repeated every two weeks. Respondents were reminded up to three times. A total of 78 questionnaires was finally returned, representing a response rate of 13.2 %. One questionnaire was removed from the sample since it had too many missing values. Overall, considering the complexity, sensitivity and length of the questionnaire, the response rate is in line with other management surveys (Diamantopoulos and Schlegelmilch 1996; Harzing 2000). We tested nonresponse bias by comparing early, average and late respondents (Armstrong and Overton 1977). In t-tests for all variables included in this study, no significant differences in the mean responses were found. We asked respondents to indicate on a 10-point scale to what degree they were involved in the price decision of the new product. Nearly 80% of the respondents rated this degree with a 6 or higher, suggesting that the questionnaire generally targeted the appropriate respondents within companies. Further we examined correlations between the degree to which respondents were involved in the price decision and the measures included in our study. No significant correlations were found, suggesting that a possible bias in our results as a consequence of respondent-selection within companies is unlikely.

Our sample consists of firms from the electronics and engineering industries. This sample is based on a subset of the industries examined by Noble and Gruca (1999a), who focus on firms producing industrial capital goods. Customer value can relatively easy be quantified in these markets, for instance by an increase of the customer's turnover and/or a decrease of the customer's costs (Anderson and Narus 1999). The purchasing process of industrial capital goods is typically a group-process that involves intense information gathering (Ward and Webster 1991). Therefore, it is likely to be less obscured by psychological effects in value- and price perceptions than it is in many other markets (Monroe 1990). The industries that are included in our sample, cover 73 % of the industries in Noble and Gruca's (1999a) net sample. Since it is the objective of our study to test the success of pricing practices, we conducted a series of interviews to select industries in which firms generally don't suffer from a

high degree of demand uncertainty which may affect the degree to which prices are based on specific types of information (Noble and Gruca 1999a).

4.2 Measurement

To measure value-, competition-, and cost-informed pricing as well as pricing success, new multiple-item measures were developed. After defining the domain of the constructs, an item pool was created on the basis of an extensive literature review and interviews in various industries (Churchill 1979). Items were measured using a 10-point scale, the upper-end indicating “played a major role in price setting”, and the lower-end indicating “was not important at all in price setting”. Many prior studies use mutually exclusive category indicators to measure pricing practices (e.g. Piercy 1981; Udell 1972), which do not accurately tap the degree to which different kinds of information are used. Also single item measures (Tzokas et al. 2000) and summated scales (Noble and Gruca 1999a) are unlikely to accurately tap the information used in a pricing process, for two reasons. First, like the domains of many concepts in social sciences, the domains of value-, competition-and cost-informed pricing as defined in this study, are too broad to be measured by a single item (Churchill 1979). Second, asking managers about the information used in a pricing process may be prone to a social response bias, since managers are likely to justify prices on the basis of costs. This observation is introduced to pricing literature as early as the 1950s (Pearce 1956) and later used by Foxall (1972), but seems to be overlooked by more recent studies on pricing practices.

In order to minimize the risk of a social response bias, items on customer value, competition and cost factors were presented in the questionnaire in random order, also including a number of additional items not measuring any of the three groups of pricing factors included in this study. As a final check on a possible social response bias in value-, competition-, and cost-informed pricing, we conducted 10 interviews. In 5 interviews we asked managers to fill out a questionnaire with purified scales of which the items measuring factors on which prices are based were presented in random order. After they finished, we asked them to describe the pricing process of the new product, as well as to indicate what kind of information they used and on **what information the final price is based, using the interview techniques advised by Pearce (1956) and Foxall (1972)**. In the other 5 interviews we followed the same procedure but started with the open questions and finished with the questionnaire. In all 10 interviews, the stories told by the managers generally fit the answers to the questionnaire. This leads us to conclude that a social response bias is not a problem in our scales.

With respect to pricing success, measured as the degree to which pricing objectives are achieved, firms may set multiple objectives, but generally set a profit and an output objective of either a maximizing or satisficing nature (Diamantopoulos 1991).

For this reason we included scale items regarding the degree to which profit and output objectives of both a maximizing and satisficing nature are achieved. Since these items loaded on one factor we constructed a general scale of achieving price objectives as the dependent variable in our study. Items on the achievement of pricing objectives were also measured on a 10-point scale, the lower end indicating “wasn’t reached at all” and the upper end indicating “was completely reached”. Measures on relative product advantage and competitive intensity were derived from Atuahene-Gima (1995).

After collecting the data, all measures used in this study were subjected to purification using factor analysis (Churchill 1979). All measures are compared to each other in two- factor models. Items that had very weak loadings or loaded on more than one factor were eliminated. To enhance discriminant validity, items that relate directly to pricing strategies as studied by Noble and Gruca (1999a) were included, like the degree to which the price is based on learning curve effects (skimming), penetration, or product line. These items generally loaded on more than one factor which supports our view that pricing strategies are the result of a pricing process in which different sources of information are used. Next, the reliability coefficient alpha of each measure was calculated and item-to-total correlations were inspected. Items with low correlations were eliminated. The final scales closely represent the concepts’ domains as they were initially defined.

TABLE 3.2
Correlation Matrix of Purified Measures¹

	(1)	(2)	(3)	(4)	(5)	number of items	Alpha
(1) Value-informed pricing						5	.81
(2) Competition-informed pricing	.01					6	.91
(3) Cost-informed pricing	.22	.04				4	.75
(4) Relative product advantage	.36	-.24	.01			3	.74
(5) Competitive intensity	.03	.34	.26	-.10		3	.73
(6) Pricing success	.37	.08	.21	.15	.39	7	.89

¹: Correlations above $r = .24$ are significant at $p < .05$.

The use of 10-point scales has the advantage that it is the most common rating scale in Belgium, for instance in the education system. It has a disadvantage in that extreme scores may strongly impact the mean of all scale items. For this reason we standardized item scores before calculating the scale means, which satisfies the condition that all scale items are equally important (Churchill 1979). All scales used in this study are reported in the appendix. The correlation matrix of purified measures is reported in Table 3.2.

4.3 Theory Testing Approach

The three situations of new product launch were each tested in a moderating regression model, following Sharma, Durand and Gur-Arie’s (1981) two-step

approach for testing moderating effects. In the first step we run moderating regressions analyses including simple effects of all components, as well as multiplicative interaction terms of independent and proposed moderator variables (e.g. value factors multiplied by relative product advantage) (Irwin and McClelland 2001). Significant interaction terms suggest the existence of pure moderators, which implies that the moderator variable (relative product advantage, competitive intensity) modifies the form of the relationship between the independent variable (e.g. cost-informed pricing) and the dependent variable (pricing success) (Schoonhoven 1981).

If no significant interaction is found one should examine the existence of a different type of moderators, so called homologizers (Sharma, Durand and Gur-Arie 1981). Homologizers influence the strength of the relationship, but don't interact with the predictor. Value-informed pricing might for instance explain more pricing success variance in situations of high relative product advantage than in situations of low relative product advantage. Homologizers can be tested for by partial correlation analysis within subgroups, created on basis of a median split of the proposed moderating variable. A significant difference between the two situations using Fisher's Z-test, indicates the existence of a homologizer. Subsample analyses are only allowed if there is no significant correlation of the proposed moderator variable with the dependent or independent variable (Slater and Narver 1994).

5. RESULTS

The results of the three moderating regression analyses are presented in Table 3.3. Results of subsample tests for homologizers are listed in footnotes below Table 3.3.¹

The simple effects suggest that value-informed pricing generally contributes to pricing success, whereas competition-informed pricing generally has no effect, and cost-informed pricing only in the model with relative product advantage. These findings suggest that value-informed pricing generally improves pricing success beyond the expected contingency effects. The simple effects also show a significant relationship between competitive intensity and pricing success. This is in line with Diamantopoulos and Mathews' (1994) finding that pricing objectives depend on the firm's environment. More specifically, we explain the effect as that firms in highly competitive environments are more satisfied with achieving price objectives than firms in stable environments and thus report higher scores on pricing success.

¹ Since we use data on the independent and dependent variables from the same informant, common method bias may be a problem. To examine the extent of the bias we use Harman's one factor test, as advised by Podsakoff and Organ (1986). The principle components factor analysis reveals seven factors with eigenvalues greater than 1.0, that account for 72% of the total variance. We conclude that common method bias is not a problem in our study, because (1) several factors were identified, (2) the

TABLE 3.3
Results of Moderating Regression Analyses (Standardized Coefficients)
Dependent variable: Pricing Success

	Relative product advantage	Competitive Intensity	Relative product advantage and Competitive Intensity
<u>Simple effects:</u>			
Value-informed pricing	.55***	.25*	.39**
Competition-informed pricing	-.04	.02	.08
Cost-informed pricing	.29**	.22	.17
Relative product advantage	.09		.18
Competitive intensity		.31**	.24
Relative product advantage times competitive intensity			-.16
<u>Interaction effects of relative product advantage with:</u>			
Value-informed pricing	.32*		
Competition-informed pricing	-.33**		
Cost-informed pricing	.06 ¹		
<u>Interaction effects of competitive intensity:</u>			
Value-informed pricing		-.37**	
Competition-informed pricing		-.03	
Cost-informed pricing		.21*	
<u>Interaction effects of relative product advantage times competitive intensity, with:</u>			
Value-informed pricing			-.14 ²
Competition-informed pricing			-.28*
Cost-informed pricing			.31*
Df	69, 7	69, 7	67, 9
F	5.82***	6.78***	5.00***
Adjusted R ²	.31	.35	.32

***: $p < .001$ ¹: negative homologizer: $r_{low} = .33$, $r_{high} = .09$, $z = 5.64$, $p < .000$.

** : $p < .01$ ²: no homologizer found: $r_{low} = .35$, $r_{high} = .40$, $z = 1.17$, not significant.

*: $p < .05$

With respect to our findings on high relative product advantage, we find a significant positive effect for value-informed and a significant negative effect for competition-informed pricing. We find no effect for cost-informed pricing, but a subsample test reveals that cost-informed pricing contributes significantly less to pricing success in situations of high relative product advantage than in situations of low relative product advantage. With respect to value- and competition-informed pricing our results confirm our hypotheses. With respect to cost-informed pricing we don't find that the effect of cost-informed pricing becomes weaker if relative product advantage increases. The significant subsample effect suggests only that cost-informed pricing contributes more to pricing success for products with low relative product advantage as compared to products with high relative product advantage.

first factor didn't account for the majority of variance (22% only), and (3) there is no general factor in the unrotated solution (Podsakoff and Organ 1986).

In situations of high competitive intensity, we find a negative effect for value-informed, a positive effect for cost-informed and no effect for competition-informed pricing, which confirms our hypotheses. A subsample test here is not allowed since there is a significant correlation between competitive intensity and pricing success.

In situations of high relative product advantage and competitive intensity, we find no effect for value-informed, a negative effect for competition-informed and a positive effect for cost-informed pricing. A subsample test on value-informed pricing is not significant. The positive effect of cost-informed pricing is contrary to hypothesis 9, but in line with the non-significant effect of cost-informed pricing and relative product advantage. We will discuss these findings in the next section.

6. DISCUSSION

The objective of this chapter is to improve our understanding of successful practices by means of which firms arrive at price decisions, as this has been repeatedly emphasized as a major gap in empirical pricing literature (Bonoma, Critenden and Dolan 1988; Monroe and Mazumdar 1988; Noble and Gruca 1999b). Specifically, we focussed on the degree to which different types of information contribute to pricing success under different conditions of customer value creation and different degrees to which customer value is likely to be eroded by competitive forces. Our results show that the success of using information on customer value, competition and costs in price decisions, is contingent on the customer value created and the competitive intensity of the market. Only value-informed pricing has a significant simple effect on pricing success in addition to the expected contingent effects. This suggests that the success of pricing practices is not as straightforward as sometimes suggested (e.g. Cressman 1999). In addition, we note that prior surveys on the use of information in price decisions may suffer from shortcomings with respect to several measurement issues (Coe 1990; Noble and Gruca 1999a; Piercy 1981; Tzokas, Hart, Argouslidis and Saren 2000; Udell 1972).

Our results on price decisions for new industrial capital goods, suggest that value-informed pricing helps the firm in achieving its pricing objectives both directly and if relative product advantage is high. The direct effect suggests that price decisions that are based on the customer's perception of the value offered, always contributes to pricing success. If relative product advantage is high, the firm increases its understanding of the price discretion if it informs itself about the the customer's value perception. Value-informed pricing significantly contributes to pricing success in this situation in addition to the general benefits of this pricing practice. However, in markets with intense competition, the contribution of value-informed pricing to

pricing success decreases, since the upper-limit of the price discretion is unlikely to be sustainable. If the product has no superior advantage over competitors' products, but aims to attack a competitor's superior position - a reactive innovation - competition-informed pricing contributes more to success. In this situation, competition-informed pricing informs the organization on the upper-limit of the price discretion.

Our results also suggest that cost-informed pricing increases the organization's understanding of the lower-limit of the price discretion, thereby contributing to pricing success. This is especially the case in competitively intense markets, where products might need to compete more on price over time. The contribution of cost-informed pricing to pricing success is also contingent on relative product advantage. However, we find here a subtle difference compared to hypothesis 7. Products with a low advantage compared to competitors (reactive innovations) only obtain a position of competitive advantage if they can be offered to customers at a lower price than competitors' products. For this reason cost-informed pricing has a positive effect on pricing success for this type of innovation. However, this finding doesn't imply that cost-informed pricing has a negative effect on pricing success for products with a high advantage. For this type of innovation, organizations may also inform themselves about the lower-limit of the price discretion, but this practice generally does not increase, nor decrease pricing success. As such, the only situation in which cost-informed pricing may harm pricing success, is under very low competitive intensity.

In addition, our study comes across four measurement issues that may have affected Noble and Gruca's (1999a) findings as well as findings from other studies. First, pricing practices are different from pricing strategies and thus should not be included in the same measurement instrument (Coe 1990; Noble and Gruca 1999a). Pricing practices refer to the use of information in a pricing process that leads to price decisions, and pricing strategies refers to how the firm tries to achieve its pricing objectives in the market place. Second, the use of all three types of information (customer value, competition and costs) should be included. Including only cost information in a study as Noble and Gruca (1999a) do, will lead to an incomplete picture of the degree to which firms neglect market information in their price decisions. Third, in the context of a pricing process, firms are unlikely to rely exclusively on a single kind of information. Thus, a measure with multiple mutually exclusive categories (Coe 1990; Piercy 1981; Udell 1972) is less likely to capture the diversity in the types of information used in a pricing process. Fourth, measuring the degree to which firms use different types of information in a pricing process might be prone to a social response bias. Managers tend to justify prices in terms of costs in order to leave an impression of a "fair" pricing practice (Pearce 1956; Foxall 1972). For these reasons we developed new multiple-item measures on the concepts of cost-informed, value-informed and competition-informed pricing, that indicate the degree to which different kinds of information are used to arrive at a price decision.

Taking into account these measurement issues and the contribution of cost information to pricing success, the high percentage of firms that indicated that they engage in cost-based pricing in Noble and Gruca's (1999a) research does not seem surprising after all. Their finding may not have to imply that these firms are ignorant of their market, the contrary may be the case: firms evaluate their competitive position for which a clear understanding of their cost positions is a necessary condition for the product to survive on the market. Our findings are in line with Noble and Gruca's (1999a) finding that demand uncertainty antecedes cost-based pricing. In situations of high competitive intensity, the demand for the new product becomes difficult to predict. Under these circumstances firms don't just rely increasingly on cost information, it also helps them to make successful price decisions.

As suggested by Nagle and Holden (1995) and Cressman (1999) our findings indicate that creating customer value, followed by a price decision based on this, is a route to pricing success. However, also the degree to which value can be sustained is an important consideration. In situations in which firms have little competition, or value can be sustained otherwise - for instance through protection by patents - a combination of creating customer value and value-informed pricing will pay off. We find that new products that intend to match the value offered by competitors, are best priced on the basis of competitor information. For example, this seems to be a safe approach for companies following strong market leaders in highly concentrated markets. The finding that the use of cost information has no negative effect on pricing success in situations in which the firm has created superior customer value, and that it even has a positive effect in situations of intense competition, shines a new light on the results of prior studies. For instance, Coe (1990) interpreted an increase of cost-based pricing throughout the 1980s as a consequence of a parallel decrease of innovation strategies. Our results suggest that the increased use of cost information in pricing can also be caused by the growing competition during that decade.

6.1 Limitations

This study has some limitations that present opportunities for future research. First, **our study is limited in the selected industries, in its geographical scope, and in its sample size.** We limited our sample to a subset of industries examined by Noble and Gruca (1999a), the geographical scope is limited to Belgian firms, and our hypotheses are tested on a relatively small sample of 77 observations. Second, our study is theoretically limited to dimensions of relative product advantage and competitive intensity, that moderate the success of pricing practices in new product launch. Following the rationale of R-A theory (Hunt and Morgan 1995), also relative product costs may impact the success of pricing practices. Third, we use a general measure of pricing success. According to chapter 2 pricing affects profit margins and market performance. Finally, we focus on price decisions for new products. Although this is

probably the most important and most complicated price decision (Shapiro and Jackson 1978), future research may examine the effects of pricing practices on the success of permanent or short-term price changes.

Chapter 4:

Issues in New Product Pricing from a Resource-Advantage Perspective¹

'The truth is that pricing is very important.'

Kent B. Monroe, 1993.

1. INTRODUCTION

In this chapter, we investigate three issues in new product pricing from a R-A perspective. First, a major part of the chapter builds on chapter 3 by further examining the success and contingencies to success of pricing practices. Second and third, we investigate two key issues of pricing from a R-A perspective: the relation between market positions and relative prices, and the relative importance of pricing for products with and without a position of competitive advantage.

In chapter 3 we use R-A theory to empirically examine the success of pricing practices in new product price decisions. In markets for industrial capital goods it is shown that the contribution of value-, competition-, and cost-informed pricing to pricing success is contingent on the customer value context: the degree to which a product offers customer value as compared to competitors' products and the degree to which this value is likely to erode as a consequence of competitive intensity on the market. Measures are developed of value-, competition-, and cost-informed pricing that take into account several measurement issues in which existing measures fall short.

Three important limitations of the research in chapter 3 can be distinguished. First, it examined the effects of pricing practices on a general measure of pricing success. In chapter 2 it was explained that pricing affects performance because it affects profit

¹ With Ruud T. Frambach and Theo M.M. Verhallen

margins and because it affects customers' perceptions. It is not examined whether pricing practices may have different effects and contingencies on profit margins and the product's performance in the marketplace. Second, contingencies examined in chapter 3 are limited to the customer value context: relative product advantage and competitive intensity. Relative costs are also key to R-A theory and pricing from a R-A perspective. Together with relative value, relative costs determine the market position of a product (Hunt and Morgan 1995) and its price discretion (chapter 2; Monroe 1990). Third, chapter 3 is limited in its empirical generalizability. Since R-A theory is developing into a general theory of competition (Hunt 2000a), the examination of pricing practices from a R-A perspective is theoretically generalizable. The empirical evidence of pricing from a R-A perspective however is still limited to price decisions for industrial capital goods.

It is the aim of this chapter to deal with these limitations. In particular, we will make three contributions to the literature discussed in chapter 3. First, we will empirically examine the effects of pricing practices on both relative profit margins and new product market performance. Second, we include relative product costs as a moderating variable affecting the success of pricing practices. We will develop hypotheses on the moderating role of this variable in the relationships between pricing practices and relative profit margins. Third, we test our hypotheses on a sample that includes a variety of products from a variety of industries and markets. As compared to chapter 3, we will therefore strongly increase the generalizability of findings on the success and contingencies to success of pricing practices. We will modify the measurement instruments of pricing practices developed in chapter 3 for industrial capital goods, and make them applicable to a variety of markets and products. We provide further evidence on their discriminant validity by comparing them to a variety of measurement instruments including customer and competitor orientations (Narver and Slater 1990), and relative product costs (Gatignon and Xuereb 1997).

In addition, this chapter will deal with two other key issues of pricing from a R-A perspective. First, R-A theory suggests a relation between relative price and market position. Hunt and Morgan (1995) argue that relative prices of products in indeterminate market positions are either lower (position 1 in Figure 1.3) or higher (position 9 in Figure 1.3) than those of competitors. According to chapter 2, the relation between market position and relative price is not limited to indeterminate positions, since the price discretion affects prices of products in all market positions. We will discuss this relation and empirically examine it. Second, we examine the relative importance of pricing for products in a position of competitive advantage and for products that are not in a position of competitive advantage. In chapter 2 it is argued that pricing is a competence, meaning that it enables the firm to deploy resources of various kinds in ways that help the firm achieve its goals. Therefore, pricing contributes to performance in addition to value-, and cost-advantages. We will

argue that this contribution is more important for products that fall short in their market position and we will empirically test this statement.

In the next section we formulate hypotheses on the success and contingencies to success of pricing practices. This is followed by a section that develops a hypothesis on the relationship between market position and relative price, as well as a hypothesis on the relative importance of pricing. Next, we present the methods section, including the data gathering procedure, sample characteristics and measurement. This methods section covers the empirical analyses of chapters 4 and 5. This is followed by a results section and finally a discussion of the results.

2. THE EFFECTS OF PRICING PRACTICES ON NEW PRODUCT PERFORMANCE

According to R-A theory, firms strive for superior financial performance, which is a consequence of the firm's market position (Hunt and Morgan 1995). The market position may be improved by launching new products to the market (Hunt and Morgan 1997). As previously noted in chapter 2: the task of determining objectives of market offerings is to determine what the firm should try to achieve with its individual market offering in order to achieve superior financial performance over the entire product line. Obviously, in order to achieve superior financial performance the firm needs both sales and positive profit margins somewhere in the entire product line (Nagle and Holden 1995; Smith and Nagle 1994). It may launch products with a negative profit margin, for example if the product is expected to become profitable over time as in a skimming strategy, or if the product enables the firm to acquire and retain customers that will also purchase products with high profit margins as in a product line strategy.

As argued in chapter 2, pricing affects performance in both ways. First, it affects performance because it affects profit margins. Second, it affects performance because it affects customers' price and value perceptions and thus their purchase intentions. In line with this idea, literature on pricing objectives suggests that firms generally always set a profit and an output objective when determining prices (Diamantopoulos 1991). In stead of examining the effects of pricing practices on a general measure of pricing success as we did in chapter 3, we will examine the effects of pricing practices on two dependent variables: relative profit margin and new product market performance.

Relative profit margin refers to the profit margin of the product compared to profit margins of competitors' products. As indicated in Part A of Figure 4.1, we expect that the effects of value-, competition-, and cost-informed pricing on the relative profit margin of a product are contingent on relative product advantage and relative product

costs.¹ Relative product advantage refers to the relative value offered by the product (chapter 3) and relative product costs refer to the variable and fixed costs for developing, producing and marketing the product as compared to competitors. These dimensions determine the relative price discretion since they represent the upper and lower boundaries of a relative price (chapter 2; Monroe 1990). The relation between pricing practices and relative profit margin is unlikely to be affected by competitive intensity, since a price decision is generally made before the product is launched. Therefore, by the time the product is launched and its profit margin is established, its relative value has not yet eroded. If firms wish to include the competitive intensity of the market in their price decision, they will do so when they determine the objectives of the market offering (Jobber and Hooley 1987). In a highly competitive environment, it might for example be more crucial to gain market share with the new product in order to achieve superior financial performance in the long run. However, this doesn't affect the relation between pricing practices and relative margin.

Market performance refers to the effectiveness of the product in the market (Homburg and Pflesser 2000), such as the degree to which sales and market share objectives are achieved. As shown in Part B of Figure 4.1, we expect that the success of pricing practices with respect to new product market performance is contingent on the customer value context. Competitive intensity refers to changes in the marketplace as a consequence of competitors' actions. It reflects the degree to which relative value is likely to erode in the market as a consequence of competitive forces (chapter 3). Relative product costs will not affect the relationships between pricing practices and new product market performance, since costs refer to the firm's internal environment and not to how market offerings are perceived by customers.

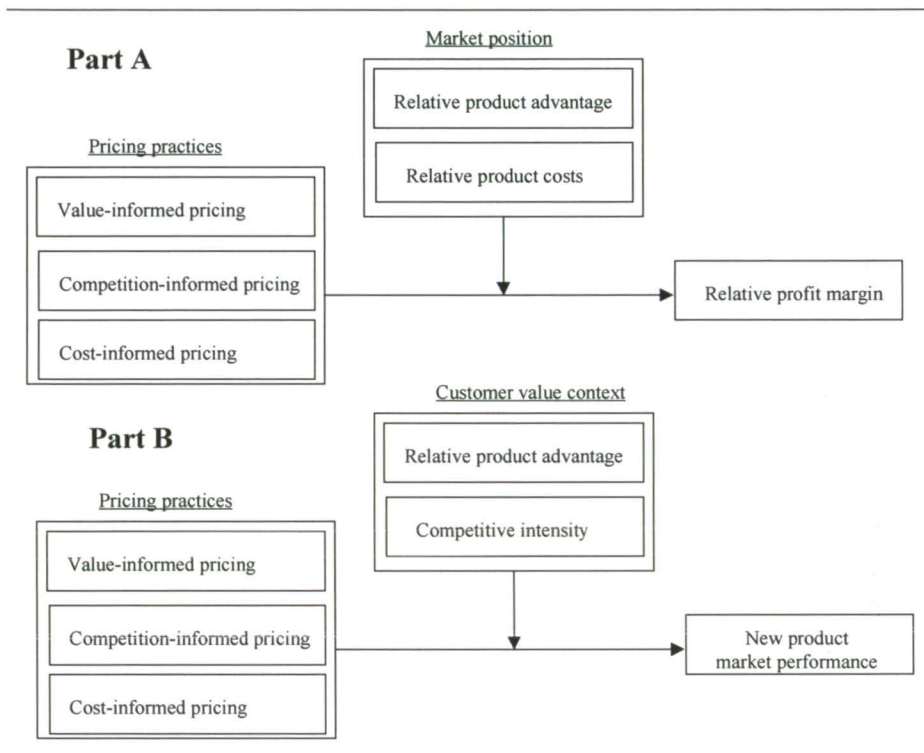
2.1 The Effects of Pricing Practices on Relative Profit Margins

The relative profit margin of a product can be increased as compared to competitors' profit margins (1) by charging a higher relative price for the product, or (2) by bringing down relative costs of the product. A higher relative price can only be charged if the product offers superior customer value, also called proactive innovation (Hunt and Morgan 1997). To increase understanding of the upper-limit of the price discretion of proactive innovations, the firm will need information on customer value. Thus, value-informed pricing will positively affect the relative profit margin under the condition that the product offers higher value than competitors' products. In other words: the higher relative product advantage, the more value-informed pricing contributes to higher relative profit margins¹:

¹ For a conceptualization of the pricing practices value-, competition-, and cost-informed pricing see chapter 3.

H₁: The higher relative product advantage, the stronger the effect of value-informed pricing on the relative profit margin.

FIGURE 4.1
Conceptual Framework



Reactive innovations offer customer value equal to competitors' products (Hunt and Morgan 1997). For these products the upper boundary of the price discretion is already established by competitors. In order to be informed about this upper-boundary, the firm needs information on competitors' prices interpreted in the light of their relative market positions. This however will not automatically lead to higher margins. Since the upper boundary is set, the relative profit margin can only be increased if the firm has a cost advantage (positions 1 and 2 in the market position matrix, Figure 1.3). Thus, competition-informed pricing will only lead to higher margins if the product offers value equal to, or lower than competitors' products, and if the firm has developed, produced, and marketed the product more efficiently than competitors:

¹ Formulation of our hypothesis is in line with what Schoonhoven (1981, p. 352) calls "multiplicative" in her discussion of functional forms in contingency theory: "the greater the value of variable 1 (...), the greater the impact of variable 2 (...) on variable 3 (...)."

H₂: The lower relative product advantage and the lower relative product costs, the stronger the effect of competition-informed pricing on the relative profit margin.

Cost-informed pricing informs the firm about the lower boundary of its price discretion. Although this is not bad practice by definition (chapter 3), it may result in profit margins that are lower than necessary if the product offers superior customer value. Thus, we hypothesize: the higher relative product advantage, the more negative the contribution of cost-informed pricing to establishing relatively higher margins. We should keep in mind, however, that this hypothesis also holds that cost-informed pricing is a good practice for products that offer lower customer value than competitors' products. Firms may for example extend their product line with a product that will not deliver direct financial gains, but will attract new customers and increase profits over the entire product line. In this situation, the product has a negative price discretion and cost-informed pricing will be beneficial in avoiding greater losses than necessary. We hypothesize:

H₃: The higher relative product advantage, the weaker the effect of cost-informed pricing on the relative profit margin.

In summary, we expect that value-informed pricing has a stronger, and cost-informed pricing a weaker effect on relative margins if relative product advantage is higher; and that competition informed pricing has a stronger effect if both relative product advantage and relative product costs are lower.

2.2 The Effects of Pricing Practices on New Product Market Performance

Value-informed pricing informs the firm about the customer's value perception of the product. This is key to achieving market performance, since a price based on the value offered by the product will better fit the customer's perception of the entire market offering consisting of both price and value (Monroe 1990). In chapter 3 we find a significant direct effect of value-informed pricing on pricing success. In line with this finding, we hypothesize simply that value-informed pricing will positively influence new product market performance, regardless of the customer value context:

H₄: The higher value-informed pricing, the higher new product market performance.

In addition, the results of chapter 3 suggest that the effect of value-informed pricing becomes weaker if competitive intensity is higher. Competitive intensity erodes the value created in a product. In other words: in markets with an intense competition, the customer's value perception is obscured by competitors' actions such as advertising

and discounts (Monroe 1990), making it a weaker basis to convince customers to purchase the product. Thus, we hypothesize:

H₅: The higher competitive intensity, the weaker the effect of value-informed pricing on new product market performance.

Reactive innovations are a reaction to one or more competitors' products that offer superior customer value. In this situation, the customer has already established a perception of the value it receives and of the price that should be paid if it decides to purchase the product. If the reactive innovation wants to compete successfully with the referent product, it should be perceived by customers as an alternative. In other words: customers should use the price of the referent product as a reference price (Kalwani, Yim, Rinne, and Sugita 1990; Rajendran and Tellis 1994). The price of the product should therefore be comparable to customers. In order to set a price that is comparable with the referent product to customers, the firm will need competitor information. Competition-informed pricing thus contributes more to new product market performance if relative product advantage is equal to or lower than competitors' products:

H₆: The lower relative product advantage, the stronger the effect of competition-informed pricing on new product market performance.

Cost-informed pricing informs about the lower boundary of the price discretion. In a market with intense competition, a clear understanding of the bottom-line may be important since danger exists that the product will be perceived as one of lower value once competitors launch new products to the market. In this situation, the firm should lower its price in order to obtain a position of competitive advantage. This way, the firm appeals to the customers' price sensitivity, which is high in many markets (Tellis 1986). In markets with a high competitive intensity, cost-informed pricing therefore may positively affect market performance. *Vise versa*, if competitive intensity is low, there is no need to set prices lower than necessary. It can even be harmful since customers might use price as a signal of quality and perceive the product as one of lower value than intended by the firm (Rao and Monroe 1989; Tellis and Wernerfelt 1987). Thus, we hypothesize:

H₇: The higher competitive intensity, the stronger the effect of cost-informed on new product market performance.

In summary, we expect that value-informed pricing has a general effect on new product market performance, regardless of the customer value context; that competition-informed pricing has a positive effect under the condition that the product

offers equal or lower relative value; and that cost-informed pricing has a positive effect in markets with a high competitive intensity.

TABLE 4.1
Summary of Hypotheses in Chapter 4, Compared to Results of Chapter 3

Dependent:	Chapter 4 (hypotheses):		Chapter 3 (results):
	Relative profit margin	Market performance	Pricing success
Value-informed	<ul style="list-style-type: none"> Positive under the condition that the product offers relatively more value (relative product advantage) 	<ul style="list-style-type: none"> Positive in general. Negative under the condition that competitive intensity is high. 	<ul style="list-style-type: none"> Positive effect in general. Positive interaction with relative product advantage Negative interaction with competitive intensity.
Competition-Informed	<ul style="list-style-type: none"> Positive under the condition that the product offers relatively lower value which is produced at relatively lower costs. 	<ul style="list-style-type: none"> Positive under the condition that the product offers relatively lower value. 	<ul style="list-style-type: none"> No effect in general. Negative interaction with relative product advantage. No interaction with competitive intensity.
Cost-Informed	<ul style="list-style-type: none"> Negative under the condition that the product offers relatively more value. 	<ul style="list-style-type: none"> Positive under the condition that the product is launched in a market with high competitive intensity 	<ul style="list-style-type: none"> Relative product advantage is homologizer Positive interaction with competitive intensity

In summary, our hypotheses are more specific than those in chapter 3 since we differentiate the effects of pricing practices on relative profit margins and new product market performance. In chapter 3, we use a general measure of pricing success as the dependent variable. Nevertheless, our hypotheses are in line with those in chapter 3, as indicated in Table 4.1. In chapter 3 we find a general positive effect of value-informed pricing, a positive interaction of value-informed pricing with relative product advantage, and a negative interaction with competitive intensity. Here, we hypothesize a general positive effect of value-informed pricing on new product market performance, a negative interaction with competitive intensity on new product market performance, and a positive interaction with relative product advantage on relative profit margin. In chapter 3 we find a negative interaction of competition-informed pricing with relative product advantage. Here, we hypothesize the same interaction on new product market performance. In addition, we hypothesize that competition-informed pricing contributes more to relative margins if both relative product advantage and relative product costs are lower. In chapter 3 we find a positive interaction of cost-informed pricing with competitive intensity. This interaction with competitive intensity is hypothesized here as an effect on new product market performance. In addition, we hypothesize a negative interaction with relative product

advantage on relative product margin. This effect is found in the results of chapter 3 as a homologizer (Sharma, Durand, and Gur-Arie 1981): cost-informed pricing has a positive effect for products with a low advantage and no effect for products with a high advantage. Our hypothesis in this chapter suggests that the interaction effect should be present if we differentiate between new product market performance and relative profit margin.

The fact that our hypotheses are in line with those in chapter 3 implies that we expect our results to be generalizable over different markets such as consumer and industrial markets, and different types of products such as commodities and durables, and services and physical products. Although some markets may face higher competitive intensity and face difficulties in creating product advantage, these effects will be captured by proposed moderating variables that are based on R-A theory.

3. OTHER ISSUES OF PRICING FROM A R-A PERSPECTIVE

The description of pricing in the process of R-A competition provides many opportunities for empirical research. In addition to the success and contingencies to success of pricing practices, this chapter will deal with two other issues on pricing from a R-A perspective. First, R-A theory suggests a relationship between market position and relative price (Hunt and Morgan 1995). Second, our discussion of pricing from a R-A perspective in chapter 2 suggests that both market position and pricing affect performance. We will examine the relative importance of pricing for products that occupy and don't occupy a position of competitive advantage.

3.1 Market Position and Relative Price Level

R-A theory suggests that relative prices (the price as compared to prices of competitors' offerings) are related to the market position. Specifically, it suggests that products that offer relatively lower value, produced at relatively lower costs (position 1 in the market position matrix, Figure 1.3), should be priced lower than competitors' offerings in order to achieve competitive advantage. It also suggests that products in a position of superior value produced at relatively higher costs (position 9 in the market position matrix, Figure 1.3), should be priced higher than competitors' offerings in order to achieve competitive advantage (Hunt and Morgan 1995). Products in a parity position (position 5 in the market position matrix, Figure 1.3) offer equal value at equal costs, and should thus be equally priced in order to achieve equal advantage/disadvantage as compared to competitors.

From this follows that relative prices increase as indicated by the arrow in Figure 4.2. It suggests that relative prices do not increase because of relative value or relative

costs alone. Instead, it suggests that relative prices increase if both relative value and relative costs increase. Thus, we hypothesize:

H₈: The higher relative product advantage and relative product costs, the higher the relative price.

FIGURE 4.2
Market Position and Relative Price

		Relative Resource-Produced Value		
		Lower	Parity	Higher
Relative Resource Costs	Lower	1 Indeterminate position	2 Competitive Advantage	3 Competitive Advantage
	Parity	4 Competitive Disadvantage	5 Parity position	6 Competitive Advantage
	Higher	7 Competitive Disadvantage	8 Competitive Disadvantage	9 Indeterminate position

Based on Hunt and Morgan (1997)

3.2 Market Position and Relative Importance of Pricing

In chapter 2, price and the pricing competence are integrated in the process of R-A competition. It is argued that pricing is a competence, meaning that it enables the firm to deploy resources of various kinds in ways that help the firm achieve its goals. Therefore, pricing contributes to performance in addition to value-, and cost-advantages. Hunt and Morgan (1995) suggest that products in indeterminate positions (positions 1 and 9 in the market position matrix, Figure 1.3) can achieve competitive advantage if the price is appropriate. This suggests that pricing is more crucial to products in indeterminate market positions than it is to products in other market positions. However, considering that pricing is a competence (see also Dutta, Zbaracki, and Bergen 2001), also products in a position of parity will perform better if **they are priced in a superior way. In other words: if the product has no relative advantage in terms of efficiency and/or effectiveness, it may have an advantage based on pricing.** Similarly, products in a position of competitive disadvantage may compensate their disadvantage in efficiency and/or effectiveness by pricing. These prices are not necessarily higher or lower, but they are superior to prices of competitors' products with respect to price signals, structures, planning, policies, levels and/or deviations (see chapter 2). In other words: the competence that enables the firm to deploy resources in ways that help the firm achieve its goals by taking superior price decisions, becomes more important if competences that make the firm

compete more effectively and/or efficiently are insufficient to launch a product in a position of competitive advantage.

Obviously, price decisions are also important for products in positions of competitive advantage. However, for products that don't have this advantage over competitors' products it is more crucial, since they are doomed to fail if they don't manage to occupy a position of competitive advantage nor to compensate the lack of advantage by superior pricing. Thus, pricing will explain more of the variance of relative profit margins and new product market performance if the product occupies no position of competitive advantage. We hypothesize:

H₉: Pricing explains more variance of (a) relative profit margins, and (b) new product market performance, for products in indeterminate market positions, positions of parity, and positions of competitive disadvantage, than for products in positions of competitive advantage.

4. METHODS

In this section we discuss the data collection procedure, sample, and measurement of variables. These methods are deployed in both chapters 4 and 5.

4.1 Data Collection Procedure and Sample

Procedure. We used commercial lists of companies in The Netherlands to select respondents' addresses. Before taking a random sample from these lists, we used two selection criteria. First, we selected addresses of manufacturing and service companies, since these firms are most likely to regularly introduce new products or services. Retailers, agricultural, and trading firms were among others excluded. Although pricing from a R-A perspective argues to be generalizable over all industries, we excluded these industries for practical reasons: filling out a questionnaire on new product or service pricing is most likely to be difficult to interpret in ways that fit the respondent's practice in these industries. Second, we only selected companies with 20 employees or more. Although this number of employees is somewhat arbitrarily, we want to avoid small companies in which pricing is done by a single entrepreneur. We study pricing practices as they occur in an organizational process in which information is exchanged between multiple business functions. From the firms that match these criteria, we randomly selected 1400 addresses and telephone numbers of informants. Prior studies show that in many firms either the general manager or the marketing manager is responsible for the price decision (Abratt and Pitt 1985; Frambach, Nijssen, and Van Heddegem 1997; Nimer 1976). To increase the likelihood that we target the appropriate respondents we selected target respondents on the basis of firm size. Following the rationale that it is more likely that

price decisions are delegated to marketing managers in larger organizations, we selected the names of general managers in organizations of less than 50 employees and the names of marketing managers in organizations of 50 employees or more (Huber and Power 1985). Respondents were asked to forward the questionnaire to a person responsible for new product/service pricing in their firm in case they were not responsible for this decision themselves.

The questionnaire focussed on the product level which avoids the critique leveled at studies examining firms' general pricing objectives and practices (Diamantopoulos 1991). Informants were asked to focus on the latest new product or service introduced by the respondent's organization, but at least 12 months on the market to make evaluation of performance possible (Moorman 1995). Questions regarding the organization's strategic orientation focussed on the strategic business unit as the unit of analysis (Deshpandé and Webster 1989).

Pricing practices can be considered a sensitive survey topic, which may negatively influence response rates (Harzing 2000). To compensate for the sensitivity of the topic, respondents' anonymity was ensured and they were offered two non-monetary incentives (Diamantopoulos and Schlegelmilch 1996; Harzing 2000). They were promised an industry report with the results of the research as well as free participation in a seminar at which the results were presented and commented upon by experts from business practice and academia. To increase target respondents' interest in the topic (Harzing 2000), a full color brochure of the seminar was included with the questionnaire, in addition to a return envelop, and a cover letter.

A phone call was made within two weeks to personally request for participation. 329 firms agreed to participate (23.5%). These firms received two reminding phone calls. Finally, 145 questionnaires were returned (44%). One questionnaire had too many missing values and was dropped for further analysis. Data were subjected to tests for nonresponse and common method bias. To test for nonresponse bias, all variables included in this study were subjected to t-tests comparing early, middle, and late respondents (Armstrong and Overton 1977). In the total of 42 tests, three significant differences were indicated in the mean responses ($p < .05$), which provides reasonable evidence that nonresponse bias is not a problem in our data.¹ Since we collected data on the independent and dependent variables from the same informant, we use Harman's one factor test for common method bias (Podsakoff and Organ 1986). The principle components factor analysis reveals 14 factors with eigenvalues greater than 1.0 accounting for 72 % of the variance. Since (1) several factors are identified, (2)

¹ Difference scores are not included in these tests. Competition-informed pricing is significantly higher for late respondents than for early respondents. Cost-informed pricing is significantly higher for early respondents than for late respondents. New product market performance is significantly higher for

the first factor accounted only for 15 % of the variance, and (3) there is no general factor in the unrotated factor solution, we conclude that common method bias is not a problem in our study (Podsakoff and Organ 1986).

Sample. The sample contains 28 manufacturers of industrial durables (19%), 26 manufacturers of industrial commodities (18%), 53 providers of industrial services (37%), 17 manufacturers of consumer durables (12%), 10 manufacturers of consumer commodities, and 11 providers of consumer services (8%). As such, this sample has a large variety of products including among others a satellite component, a loaf of bread, a sleeping bag, a new coffee service, software, and labor intermediary services. This variety is especially large when compared to other recent research efforts in organizational pricing that generally focussed on industrial capital goods (chapter 3; Noble and Gruca 1999a). With respect to the size of the firms in our sample, 41% has less than 50 employees, 20% has 50-100 employees, 25% has 100-500 employees, and 14% has more than 500 employees. Questionnaires are filled out by general managers (53%), marketing or sales managers (30%), financial managers (5%), pricing managers (4%), or managers with other functions (8%).

4.2 Measurement

Except for relative price which is measured by a single item and relative profit margin and relative price discretion which are difference scores, all variables included in chapters 4 and 5 are operationalized by multiple-item measures based on extant research (chapter 3; Gatignon and Xuereb 1997; Han, Kim, and Kim 2001; Homburg and Pflesser 2000; Moonman and Miner 1997; Narver and Slater 1990). We used forward and backward translation techniques to translate English items into Dutch. Next, measures were tested on their interpretability and ease to complete in 10 interviews with managers responsible for new product/service pricing from a variety of firms. In particular, the measures on pricing practices, developed in chapter 3 in a context of industrial capital goods, were tested in these interviews for their face validity in the broader empirical context of this study. On the basis of these interviews several items were modified or replaced by new items. All items are measured by 5-point Likert-type scales.¹

For measurement validation we used conventional methods such as coefficient alpha, item-to-total correlations, and exploratory factor analysis (Churchill 1979), to select items that were inputted in confirmatory factor analyses (Bagozzi, Yi, and Philips 1991; Gerbing and Anderson 1988).

middle respondents than for late respondents. We don't consider this an indication for social response bias since there's no significant difference between early and late respondents.

¹ 5-point scales are chosen here over 7-point scales, since several interviewees pointed out to be more familiar with 5-point scales as these are more commonly used in Dutch market research.

The unidimensionality of each measure was assessed in a series of two-factor models in EQS 5.7 (Bentler 1995; Bentler and Wu 1995). All possible combinations of measures are tested. This approach is chosen over the analysis of a single model to satisfy the rule of thumb of a 5-to-1 ratio of sample size to parameter estimates in confirmatory factor analysis (Kline 1998). This approach ensures that each construct is tested in relation to every other relevant construct included in the study. A measure like value-informed pricing is thus included in models with other measures on pricing practices, relative product advantage (Gatignon and Xuereb 1997), customer orientation (Narver and Slater 1990) as well as any other measure included in this study. After eliminating items that had very low loadings or loaded on more than one factor, all loadings were significant ($t > 1.96$) (Byrne 1994).

Next, discriminant validity of the measures is assessed using the procedure advised by Bagozzi and Philips (1982) and Anderson (1987). Pairs of constructs were assessed in a series of two-factor confirmatory factor models in EQS 5.7. Each model was run twice, once constraining the correlation between the two latent variables to 1.0 and once freeing this parameter. A chi-square difference test was then performed and changes in the Comparative Fit Index (CFI) (Bentler 1990) were examined (Byrne 1994). For all models investigated, the chi-square values were significantly lower for the unconstrained models and CFI values dropped considerably. These results suggest that the measures exhibit discriminant validity (see appendix 3 for the test results).

Pricing practices. Value-informed pricing is measured by three items and competition-informed pricing by four items adapted or derived from the original scales used in chapter 3. Both constructs well describe the original domain of the concepts (see chapter 3) and are reliable since their Cronbach's alphas are respectively .78 and .79. Cost-informed pricing is measured by two items, referring to the use of cost information as a basis for a price decision in general. Items referring to the use of more specific information like variable costs, break-even point and investments in the product, were dropped. Apparently, these are less suitable in the broad empirical context of this study. Since the final two-item scale covers the domain of cost-informed pricing and is sufficiently reliable, this is not considered problematic. Items of the three measures on pricing practices are presented in random order in the questionnaire to minimize the risk for social response bias (see chapter 3).

New product characteristics and performance. Measures of relative product advantage and relative product costs are adapted from Gatignon and Xuereb (1997). The relative product advantage scale represents several sources of customer value which are assessed relative to competitors' offerings. Reliability coefficient alpha (.77) of this scale is comparable to the original scale (.74). The relative product costs scale consists of three items measuring the sources of costs relative to competitors' products. These sources include marketing, manufacturing/operations, and R&D/costs of

development. Reliability coefficient alpha (.68) is slightly lower than in the original scale (.73), which is probably caused by excluding one item on overall costs in the purification procedure described above.

We include two scales on new product performance that refer to new product market performance and new product financial performance respectively. Homburg and Pflesser (2000, p. 452) argue that market performance can be distinguished from financial performance. They define market performance as “the effectiveness of an organization’s marketing activities.” Although the two measures strongly correlate (see Table 4.2), they appear to be discriminantly valid (see appendix 3). New product market performance is adapted from Homburg and Pflesser’s (2000) scale for organizational market performance. The new product financial performance scale is adapted from Moonman and Miner (1997). In both scales performance is measured as relative to the stated objective or expectation. This approach removes industry-specific main effects (Gatignon and Xuereb 1997). Reliability coefficients alpha are .83 for new product market performance and .90 for new product financial performance.

Although self-assessment measures may be prone to common method and social response biases, they are widely used to assess performance in marketing strategy research. With respect to common method bias, Harman’s one factor test indicates that such a bias is unlikely in our data. With respect to social response bias, several studies showed the convergent validity of self-assessment performance measures (Dess and Robinson 1984; Doyle, Saunders, and Wright 1989; Venkatraman and Ramanujam 1986). Also, Henard and Szymanski (2001) find in their meta-analysis no significant differences between objective and self-assessed measures of new product performance in their relation with variables included in our study (market orientation and product advantage). In addition, Saunders, Brown, and Laverick (1992, p. 184) note that self-assessed measures may be less problematic than “objective” financial measures, which can also be biased “because of the ulterior motives for which they are produced.”

Strategic orientations and interfunctional coordination. Customer and competitor orientation are measured by scales developed by Narver and Slater (1990, p. 24). Items of the original scales were slightly rephrased to ease completion of the questionnaire (comparable to modifications carried out by Han, Kim, and Srivastava 1998). In the purification process described above, two items from the original customer orientation scale were dropped (“Understand customer needs” and “Measure customer satisfaction”). The latter item is also excluded by Han, Kim, and Srivastava (1998). They argue that measuring customer satisfaction is not applicable to every industry. The first item is removed since it also loaded on new product market performance. Since we excluded two items, coefficient alpha (.78) of our customer

orientation scale is slightly lower than in extant research that finds reliabilities differing between .83 and .88 (Gatignon and Xuereb 1997; Han, Kim and Srivastava 1998; Han, Kim and Kim 2001; Narver and Slater 1990; Slater and Narver 1994). The competitor orientation scale includes all original items and its reliability is comparable to those found in prior research (Gatignon and Xuereb 1997; Han, Kim and Srivastava 1998; Han, Kim and Kim 2001; Narver and Slater 1990; Slater and Narver 1994).

The technological orientation scale consists of three items derived from Gatignon and Xuereb (1997) and Han, Kim, and Kim (2001). The scale represents the original domain of the construct as defined by Gatignon and Xuereb (1997, p. 78): “the ability and will to acquire a substantial technological background and use it in the development of new products.” Considering that our scale includes fewer items than Gatignon and Xuereb’s (1997) and Han, Kim, and Kim’s (2001) scales, coefficient alpha is relatively high (.85).

Interfunctional coordination is measured by four items of Narver and Slater’s (1990) original 5-item scale. The item “interfunctional customer calls” (Narver and Slater 1990, p. 24) was removed since it also loaded on the customer orientation scale. Coefficient alpha (.81) is comparable with reliabilities found in prior research (Gatignon and Xuereb 1997; Han, Kim and Srivastava 1998; Han, Kim and Kim 2001; Narver and Slater 1990; Slater and Narver 1994).

Business environment. The competitive intensity scale is derived from Homburg and Pflesser’s (2000) scale of market dynamism that refers to changes in the market place as a consequence of competitors’ actions. Coefficient alpha is slightly higher (.82) than reported in their study (.76). Demand uncertainty is measured by four items of which one item is derived from Gatignon and Xuereb (1997). Like Gatignon and Xuereb’s (1997) scale, it is concerned with the ability to predict preferences, tastes and demand in the market in which the product is launched.

Relative price. Relative price is measured by a single item asking respondents to indicate the relative price level as compared to comparable offerings of competitors (Chen and MacMillan 1992). Interrater reliability (James, Demaree, and Wolf 1984) over all products is .71.

Relative profit margin and relative price discretion. Relative profit margin is calculated as the difference between relative price and relative product costs. Relative price discretion is calculated as the difference between relative product advantage and relative product costs. This computation is consistent with its conceptualization that price discretion is determined by its upper and lower boundaries that are established by value and costs (chapter 2; Monroe 1990). As Peter, Churchill, and Brown (1993) suggest we included difference scores in our examination of discriminant validity,

report properties and correlations, and calculated reliabilities with the formula that controls for variances of and correlation between the components of the difference score. The results on discriminant validity suggest that both measures are discriminantly valid from their components and other measures (see appendix 3). Reliability of difference scores is generally lower than reliability of its components (Peter, Churchill, and Brown 1993). This is in particular the case with our measure of relative profit margin (.58). The lower reliability of this measure is largely caused by the high correlation between the two components: relative price and relative product costs. In addition, we inspected both measures for variance restriction problems (Peter, Churchill, and Brown 1993). We found no indication that when the value of the difference score increases (higher relative profit margin or relative price discretion) variance systematically increases. Nor did we find strong deviations from a normal distribution. In addition, we note that the alternative to measure relative profit margin and relative price discretion would be to ask managers directly to assess their profit margin and price discretion as compared to competitors' products. Since these questions are very difficult if not impossible to answer for managers, we preferred the use of the difference scores.

The procedure followed here leads to substantial improvement of several original scales. In particular, measures on value-, competition-, and cost-informed pricing are now applicable to a wide range of products and markets and have face validity in these contexts. They are unidimensional and exhibit discriminant validity when compared to each other, and when compared to a number of related constructs, including customer orientation, competitor orientation, relative product advantage and relative product costs. Next, we differentiated between new product market performance and financial performance. It supports the view that market performance can be distinguished from financial performance (e.g. Homburg and Pflesser 2000). We developed difference score measures for constructs that are fairly impossible to measure in an alternative way. In addition, we improved several scales for the benefit of future research, like technological orientation and demand uncertainty. Appendix 2 contains all multiple item measures, as well as their sources and standardized path coefficients. Table 4.2 contains correlations of the purified measures, and Table 4.3 contains their properties.

TABLE 4.2
Correlation Matrix of Measures¹

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Value-informed pricing															
2. Competition-informed pricing	.11														
3. Cost-informed pricing	-.31	-.02													
4. Relative product advantage	.23	.04	-.05												
5. Relative product costs	.15	.12	.13	-.05											
6. Customer orientation	.21	.04	-.08	.28	.02										
7. Competitor orientation	.16	.24	.05	.02	.18	.35									
8. Technological orientation	.24	.14	.04	.27	.14	.26	.30								
9. Interfunctional coordination	.03	-.00	.04	.26	.09	.48	.23	.14							
10. Competitive intensity	.16	.20	.04	.14	.05	.21	.19	.19	.13						
11. Demand uncertainty	.02	-.01	-.02	.04	.05	.07	.02	.13	.19	.09					
12. New product market performance	.37	-.06	-.01	.37	.04	.19	.22	.28	.06	.16	-.06				
13. New product financial performance	.24	-.02	-.13	.19	-.15	.14	.14	.16	-.05	.20	-.08	.63			
14. Relative price	.10	-.12	-.07	-.14	.28	-.02	.06	-.06	-.11	.04	.05	.02	-.11		
15. Relative profit margin	-.04	-.20	-.16	-.08	-.58	-.07	-.19	-.23	-.13	-.07	.00	-.02	.02	.62	
16. Relative price discretion	.03	-.06	-.13	.66	-.78	.05	-.07	.10	-.05	.05	-.01	.21	.23	-.30	.39

¹ Correlations above .17 are significant at $p < .05$

TABLE 4.3
Properties of Purified Measures

		Number of items	Range ¹	Mean	Standard Deviation	Reliability ²
1.	Value-informed pricing	3	1-5	3.39	.89	.78
2.	Competition-informed pricing	4	1-5	3.32	.85	.79
3.	Cost-informed pricing	2	1-5	3.43	.98	.71
4.	Relative product advantage	4	1-5	4.00	.61	.77
5.	Relative product costs	3	1-4.33	2.83	.73	.68
6.	Customer orientation	4	1.5-5	3.79	.77	.78
7.	Competitor orientation	4	1-5	3.48	.85	.79
8.	Technological orientation	3	1-5	3.40	1.02	.85
9.	Interfunctional coordination	4	1-5	3.56	.72	.81
10.	Competitive intensity	3	1-5	2.90	.93	.82
11.	Demand uncertainty	4	1-4.75	2.86	.81	.73
12.	New product market performance	5	1.4-5	3.38	.71	.83
13.	New product financial performance	3	1-5	3.08	.82	.90
14.	Relative price	1	2-5	3.15	.77	.71
15.	Relative profit margin (Difference score)		-2-4	.31	.90	.58
16.	Relative price discretion (Difference score)		-2.67-3.64	1.17	.98	.73

¹ The possible range for relative profit margin and relative price discretion was -4 - 4, for all other measures it was 1-5.

² Reliability for multiple item scales is Cronbach's Alpha. For the single item scale of relative price interrater reliability was calculated over all products with the formula for within-group interrater reliability for a single-item estimator (James, Demaree, and Wolf 1984). Reliability for difference scores is calculated with the formula for reliability of a difference score (Peter, Churchill, and Brown 1993).

5. RESULTS

5.1 The Effects of Pricing Practices on New Product Performance

We test our hypotheses using moderating regression analyses. Following Irwin and McClelland (2001), each regression equation contains all simple and lower order-order interaction effects. For example, regression equations that include three-way effects, also include all two-way interactions and simple effects. Significant interaction terms suggest the existence of pure moderators (Sharma, Durand, and Gur-Arie 1981), which implies that the moderator variable (relative product advantage, relative product costs, competitive intensity) modifies the form of the relationship between the independent variable (e.g. value-, competition, or cost-informed pricing) and the dependent variable (relative profit margin, new product market performance, new product financial performance). To avoid problems of multicollinearity we use deviations from the mean. Interactions are calculated by multiplying mean-centered variables. Variance inflation factors associated with independent variables are all well below 10, suggesting that multicollinearity is not problematic in our analyses (Hair, Anderson, Tatham, and Black 1995).

Relative profit margin. Table 4.4 reports the results with respect to relative profit margin. Hypothesis 1 predicts that the stronger relative product advantage, the stronger the positive effect of value-informed pricing on relative profit margins. The predicted interaction of value-informed pricing and relative product advantage is significant, which supports hypothesis 1. Hypothesis 2 predicts that competition-informed pricing has a more positive effect if relative product advantage is lower and if relative product costs is lower. Since the three-way interaction effect of competition-informed pricing times relative product advantage times relative product costs, is negative and significant, hypothesis 2 is supported. Hypothesis 3 predicts that the effect of cost-informed pricing on relative profit margin is more negative, if relative product advantage is higher. The coefficient of the interaction of cost-informed pricing and relative product advantage is negative, but only indicative significant ($p < .1$). We find therefore only indicative evidence for hypothesis 3.

In addition, we find two significant effects of competition-informed pricing that were not predicted by our hypotheses. Competition-informed pricing has a simple negative effect on relative profit margin, which suggests that competitor information generally contributes to smaller profit margins. Competition-informed pricing times relative product advantage however has a significant positive effect on relative profit margin. This suggests that under the condition that the product offers superior customer value, competitor information results in higher margins. In other words: although information on competitors' prices and market positions generally tends to decrease relative profit margins, it increases profit margins of products that are set apart

from competitors. If a firm develops a product that offers superior value, it will need information on the competitor's offering in order to understand how much higher the price and thus the profit margin of the product may be.

TABLE 4.4
Results of Moderating Regression Analyses (Standardized Coefficients)
Dependent Variable: Relative Profit Margin

<u>Simple effects:</u>	
Value-informed pricing	.02
Competition-informed pricing	-.16*
Cost-informed pricing	-.07
Relative product advantage	-.09
Relative product costs	-.59***
<u>Interaction effects of relative product advantage with :</u>	
Value-informed pricing	.16*
Competition-informed pricing	.26**
Cost-informed pricing	-.12
<u>Interaction effects of relative product costs with :</u>	
Value-informed pricing	.04
Competition-informed pricing	-.11
Cost-informed pricing	.04
Relative product advantage * relative product costs	.04
<u>Interaction effects of relative product advantage * relative product costs with :</u>	
Value-informed pricing	.01
Competition-informed pricing	-.15*
Cost-informed pricing	-.02
Market (business-to-business – consumer)	.11
Df	16, 127
F	7.20***
Adjusted R ²	.41

***: $p < .001$

**: $p < .01$

*: $p < .05$

Relative product costs has a strong negative effect on relative profit margin. This is not surprising considering that relative product costs is a component of the difference score on relative profit margin. The regression contains one dummy variable on the type of market (business-to-business market or consumer market). Although it is not significant, this variable controls for the fact that margins may be generally higher in business-to-business markets than in consumer markets. We examined models with several other control variables as well as their two-way and three-way interactions with pricing practices, such as competitive intensity, demand uncertainty, the degree to which the price is influenced by legislation, and a dummy variable on durable or commodity type of products. No significant contributions to the model were found. We examined the generalizability of our results, using Chow-tests for parameter

stability (Stewart 1991). Tests in which we compared subsamples by splitting our sample in two groups (business-to-business versus consumer markets, $F_{(df = 15, 114)} = 1.17$; durable versus commodity markets, $F_{(df = 15, 114)} = 1.03$; physical products versus services, $F_{(df = 15, 114)} = 1.48$) or three groups (business-to-business durables, business-to-business commodities, consumer markets, $F_{(df = 30, 99)} = 1.11$; business-to-business services, business-to-business physical products, consumer markets, $F_{(df = 30, 99)} = 1.59$) are not significant which provides reasonable evidence that our results are generalizable over different products and markets.¹

TABLE 4.5
Results of Moderating Regression Analyses (Standardized Coefficients)
Dependent Variable: New Product Market Performance

<u>Simple effects:</u>			
Value-informed pricing	.27**	.32***	.25**
Competition-informed pricing	-.10	-.12	-.05
Cost-informed pricing	.09	.09	.04
Relative product advantage	.31***	.31***	.38***
Competitive intensity	.10	.06	.11
<u>Interaction effects of relative product advantage with :</u>			
Value-informed pricing	-.07		.10
Competition-informed pricing	.12		-.02
Cost-informed pricing	-.01		.07
<u>Interaction effects of competitive intensity with :</u>			
Value-informed pricing		-.10	.05
Competition-informed pricing		-.00	-.03
Cost-informed pricing		.03	.05
Product advantage * competitive intensity			-.10
<u>Interaction effects of relative product advantage * competitive intensity with :</u>			
Value-informed pricing			-.04
Competition-informed pricing			-.43***
Cost-informed pricing			.25*
Df	8.135	8.135	15, 128
F	6.43***	6.08***	5.80***
Adjusted R ²	.23	.22	.34

***: $p < .001$

**: $p < .01$

*: $p < .05$

New product market performance. Table 4.5 reports the results with respect to new product market performance. The column on the left reports the results of a regression that includes only simple effects and two-way interactions of pricing practices and relative product advantage. The column in the middle reports the results of a regression that includes simple effects, and two-way interactions of pricing practices

¹ The dummy variable business-to-business or consumer market is not included in the regression analyses that are compared in the Chow tests.

with competitive intensity. The column on the right includes the results of a regression that includes all simple effects, all two-way interactions and three-way interactions of pricing practices times relative product advantage times competitive intensity.

Hypothesis 4 predicts a positive effect of value-informed pricing on new product market performance, regardless of the customer value context. In all three models we find a significant positive simple effect of value-informed pricing, and we find no significant interactions of value-informed pricing with relative product advantage and/or competitive intensity. These findings support hypothesis 4. Hypothesis 5 predicts a negative effect of value-informed pricing if competitive intensity is high. The two-way interaction of value-informed pricing and competitive intensity is negative, but not significant. Thus, hypothesis 5 is not supported. Hypothesis 6 predicts a negative effect of competition-informed pricing if relative product advantage is higher. The two-way interaction of competition-informed pricing and relative product advantage however is not significant, which doesn't support hypothesis 6. Hypothesis 7 predicts that cost-informed pricing has a positive effect on new product market performance if competitive intensity is high. The interaction of cost-informed pricing and competitive intensity is not significant, which doesn't support hypothesis 7.

Examining the three-way interactions of competition- and cost-informed pricing with relative product advantage and competitive intensity however reveals that the contribution of these pricing practices is contingent on both dimensions. The negative three-way interaction of competition-informed pricing suggests that competition-informed pricing positively influences new product market performance under the condition that either relative product advantage is low and competitive intensity is high, or that relative product advantage is high and competitive intensity low. This supports hypothesis 6 under the condition that the product is launched in a market with high competitive intensity. The positive three-way interaction of cost-informed pricing suggests that cost-informed pricing positively influences new product market performance if either competitive intensity is high and relative product advantage is high, or competitive intensity is low and relative product advantage is low. This supports hypothesis 7 under the condition that the product has an advantage over competitors' products. We return to these findings in our discussion section.

We examined several models with control variables as well as their two-way and three-way interactions with pricing practices, such as relative product costs, relative price, demand uncertainty and dummy variables on business-to-business or consumer market, and durable or commodity type of products. In particular, we examined whether the negative interaction effect of value-informed pricing and competitive intensity hypothesized in hypothesis 5 and found in chapter 3, is present for industrial

durables like in chapter 3. No significant contributions to the model were found. We examined the generalizability of our results, using Chow-tests for parameter stability (Stewart 1991). Tests in which we compared subsamples by splitting our sample in two groups (business-to-business versus consumer markets, $F_{(df = 15, 114)} = 1.21$; durable versus commodity markets, $F_{(df = 15, 114)} = 1.07$; physical products versus services, $F_{(df = 15, 114)} = 1.15$) or three groups (business-to-business durables, business-to-business commodities, consumer markets, $F_{(df = 30, 99)} = 1.15$; business-to-business services, business-to-business physical products, consumer markets, $F_{(df = 30, 99)} = 1.19$) are not significant which provides reasonable evidence that our results are generalizable over different products and markets.

New product financial performance. In addition, we examined whether relative margins and market performance indeed contribute to new product financial performance. Results with respect to new product financial performance are reported in Table 4.6. Since the interaction of relative profit margin times new product market performance times relative price discretion is positive and significant, we find that firms should achieve both higher margins and market performance in order to achieve financial performance with the product. This is however contingent on the price discretion: if firms launch products that have no positive price discretion the product is unlikely to result in financial performance. In addition, we also find a strong simple effect of new product market performance on new product financial performance. This effect might be caused by the fact that both variables are measured relative to the stated objective or expectation and thus are likely to correlate strongly. It can also point at an effect of market performance beyond direct sales, such as cross-selling or financial benefits from customer loyalty.

TABLE 4.6
Results of Moderating Regression Analyses (Standardized Coefficients)
Dependent Variable: New Product Financial Performance

<u>Simple effects:</u>	
New product market performance	.56***
Relative price discretion	.10
Relative profit margin	-.02
<u>Interaction effects:</u>	
New product market performance * relative price discretion	.07
New product market performance * relative profit margin	.04
Relative price discretion * relative profit margin	.08
New product market performance * relative price discretion * relative profit margin	.18*
Df	7, 136
F	14.56***
Adjusted R ²	.40

***: $p < .001$

**: $p < .01$

*: $p < .05$

No significant contributions to the model were found from a variety of control variables.¹ We examined the generalizability of our results on the regression without competitive intensity, using Chow-tests for parameter stability (Stewart 1991). Tests in which we compared subsamples by splitting our sample in two groups (business-to-business versus consumer markets, $F_{(df = 7, 130)} = 1.12$; durable versus commodity markets, $F_{(df = 7, 130)} = .99$; physical products versus services, $F_{(df = 7, 130)} = .65$) or three groups (business-to-business durables, business-to-business commodities, consumer markets, $F_{(df = 14, 123)} = 1.50$; business-to-business services, business-to-business physical products, consumer markets, $F_{(df = 14, 123)} = .84$) are not significant which provides reasonable evidence that our results are generalizable over different products and markets.

5.2 Market Position and Relative Price Level

Next, we examine the effect of market position on relative price level. We test hypothesis 8 predicting that relative price increases if both relative product costs and relative value increase. Results are reported in the left column of Table 4.7.

The hypothesis is not supported since the interaction of relative product advantage and relative product costs is not significant. The only significant effect is the positive effect of relative product costs. This is remarkable, since it suggests that firms don't charge higher prices if they create more value, but only if they have higher costs, regardless of the value created. To illustrate this finding, we use the dimensions of relative product advantage and relative product costs to determine the market position of each product in our sample. Results are portrayed in Figure 4.3. As becomes clear the majority of products occupies a position of competitive advantage, which supports the idea that firms launch new products to improve their market positions (Hunt and Morgan 1997). In Figure 4.4 the average relative prices are shown for products in different market positions.

Hypothesis 8 builds on the idea that products in position 1 have prices lower than competitors, products in position 5 have prices equal to competitors, and in position 9 higher than competitors. A one-sample t-test testing the mean relative price in position 5 against the value of 3, suggests that relative prices of the 8 products in this position are not significantly higher or lower than competitors ($t = 1.43$). The same procedure on the products in position 9 shows that the average price level of products in this position is indeed higher than competitors ($t = 3.83$, $p < .001$). Strictly, this

¹ Since we found no interaction effect of competitive intensity and value-informed pricing on market performance, we examined the possibility that the effect found in chapter 3 is caused because the positive effect of profit margins erodes in markets with a high competitive intensity. We examined a model with a four-way interaction of relative profit margin times new product market performance times relative price discretion times competitive intensity, also including all two-way and three-way interactions and simple effects. As none of the interactions with competitive intensity were significant,

confirms that prices are determined for products in positions 5 and 9 as predicted by R-A theory.

TABLE 4.7
Results of Moderating Regression Analyses (Standardized Coefficients)
Dependent Variable: Relative Price

Relative product advantage	-.14	-.10
Relative product costs	.28**	.26**
Relative product advantage * Relative product costs	.05	.05
Value-informed pricing		.02
Competition-informed pricing		-.19*
Cost-informed pricing		-.09
<u>Interaction effects of relative product advantage with :</u>		
Value-informed pricing		.19*
Competition-informed pricing		.31**
Cost-informed pricing		-.14
<u>Interaction effects of relative product costs with :</u>		
Value-informed pricing		.05
Competition-informed pricing		-.13
Cost-informed pricing		.05
<u>Interaction effects of relative product advantage * relative product costs with :</u>		
Value-informed pricing		.01
Competition-informed pricing		-.17*
Cost-informed pricing		-.03
Market (business-to-business – consumer)		.13
Df	3, 140	16, 127
F	4.91**	2.93***
Adjusted R ²	.08	.18

***: p < .001

**: p < .01

*: p < .05

The fact that our hypothesis is not supported is essentially caused by the products in positions of competitive advantage that are often priced lower than or equal to competitors. This raises the question whether these firms don't want to charge price premiums or whether they are simply not capable of doing so? In the regression analysis in the right column of Table 4.7, we included pricing practices and two-way and 3-way interaction terms of pricing practices with relative product advantage and relative product costs. The independent variables in this model are similar to our model of relative margin. It shows that the effect of relative product advantage on relative price is contingent on pricing practices as discussed before with our results on relative profit margin.

we find no evidence in our data that competitive intensity erodes the effect of relative profit margins on new product financial performance.

FIGURE 4.3
Market Positions of Products

		Relative Product Advantage		
		0 Lower	1.67 Parity	3.33 Higher 5
Relative Product Costs	Lower	1 Indeterminate position n = 0 (0.00 %)	2 Competitive Advantage n = 3 (2.08 %)	3 Competitive Advantage n = 6 (4.16 %)
	1.67 Parity	4 Competitive Disadvantage n = 0 (0.00 %)	5 Parity position n = 8 (5.56 %)	6 Competitive Advantage n = 82 (56.94 %)
	3.33 Higher	7 Competitive Disadvantage n = 1 (0.69 %)	8 Competitive Disadvantage n = 6 (4.16 %)	9 Indeterminate position n = 38 (26.39 %)
	5			

FIGURE 4.4
Average Relative Prices by Market Position (Standard Deviation)

		Relative Product Advantage		
		0 Lower	1.67 Parity	3.33 Higher 5
Relative Product Costs	Lower	1 Indeterminate position (n = 0)	2 Competitive Advantage 3 (1.75) (n = 3)	3 Competitive Advantage 2.83 (.75) (n = 6)
	1.67 Parity	4 Competitive Disadvantage (n = 0)	5 Parity position 3.38 (.74) (n = 8)	6 Competitive Advantage 2.98 (.70) (n = 82)
	3.33 Higher	7 Competitive Disadvantage 4 (n = 1)	8 Competitive Disadvantage 3.33 (.52) (n = 6)	9 Indeterminate position 3.47 (.76) (n = 38)
	5			

In summary, relative price levels are not simply explained by relative costs and relative advantage as suggested in hypothesis 8. Our results suggest that if relative costs are higher, relative prices are higher. This suggests that firms set higher prices if their costs position forces them to do so. Relative product advantage on the other hand doesn't force firms to set higher prices. Instead, it allows them to set higher prices if they prefer to do so, and if they are capable of value- and competition-informed pricing.

5.3 Market Position and Importance of Pricing

Hypothesis 9 predicts that pricing explains more variance of (a) relative profit margins, and (b) new product market performance, for products in indeterminate market positions, positions of competitive disadvantage, and positions of parity, than

for products in positions of competitive advantage. To test this hypothesis we split our sample in two groups. The first group consists of all products that occupy a position of competitive advantage (market positions 2, 3, and 6 in Figure 4.3). The second group consists of all products in indeterminate positions and positions of parity or disadvantage (market positions 5, 7, 8, and 9 in Figure 4.3). We compare the two groups on the fit of a regression model with the three pricing practices as independent variables. If pricing explains more variance of relative profit margin and new product market performance of products without a position of competitive advantage, our hypothesis is supported.¹ Results are reported in Table 4.8.

The results in Table 4.8 support hypothesis 9, since the adjusted R^2 in the group of products without competitive advantage are higher than in the group of products with competitive advantage. Pricing practices explain more variance of relative profit margin if the product has no competitive advantage. Relative margins are lower for products that don't occupy a position of competitive advantage ($t = -3.83$, $p < .001$), which is logically explained by the fact that products in a position of competitive advantage have larger pricing discretions. Considering that products that occupy no position of competitive advantage have smaller pricing discretions, pricing explains better whether they make a loss and how much they lose than for products in a safe position of competitive advantage. New product market performance is not significantly different between the two groups ($t = .26$) and it is better explained by pricing practices for products that don't occupy a position of competitive advantage. These results support the idea that pricing is relatively more important for firms that fail to develop products that compete more effectively and/or efficiently.

TABLE 4.8
Results of Regression Analyses (Standardized Coefficients)
Comparison of Products with and without Competitive Advantage

	Relative profit margin		New product market performance	
	Competitive advantage	No competitive advantage	Competitive advantage	No competitive advantage
N	91	53	91	53
Value-informed	-.06	-.11	.33**	.49***
Competition-informed	-.09	-.36**	-.06	-.12
Cost-informed	-.18	-.16	.08	.15
Df	3, 87	3, 49	3, 87	3, 49
F	1.10	3.05*	2.76*	5.66**
Adjusted R^2	.00	.11	.06	.21

***: $p < .001$

**: $p < .01$

*: $p < .05$

¹ Since our hypothesis typically suggests that the same regression model explains more variance of the dependent variable in one group compared to another, the hypothesis can't be tested using moderating

6. DISCUSSION

6.1 The Effects of Pricing Practices on New Product Performance

In this chapter we examine the success and contingencies to success of the pricing practices value-informed, competition-informed, and cost-informed pricing. With respect to pricing success, we differentiate between relative profit margin and new product market performance. We find that both relative profit margin and new product market performance contribute to the financial performance of the product under the condition that the product has a positive price discretion. We find different contingencies and different effects of pricing practices on these dependent variables. With respect to relative profit margin we find pricing practices to be contingent on relative product advantage and relative product costs, whereas relative product advantage and competitive intensity moderate the relationships between pricing practices and new product market performance. From this we may conclude that the introduction of relative product costs as a moderating variable, and the differentiation between relative profit margin and new product market performance, are valuable contributions to a more precise understanding of pricing best practices. The findings are summarized in Table 4.9.

The pricing practices that should be used by the firm depend on the objectives the firm wants to achieve with the market offering: increasing the profit margin or achieving market performance such as sales and market share. Some products have a negative price discretion: their relative costs are higher than the relative value they offer. For these products, a high profit margin shouldn't be an objective, but they can contribute to financial performance by achieving market performance and increase profits over the entire product line and/or over time.

Increasing relative profit margins. Value-informed pricing informs the firm about the customers' perceptions of the sum total of all benefits they receive if they decide to purchase the product. This information provides a basis to estimate the maximum price the customer is willing to pay. If the product offers superior customer value as compared to competitors' market offerings, the maximum price the customer is willing to pay is likely to be higher than those of competitors' offerings. Value-informed pricing is best practice to increase profit margins in this situation. If the product offers equal or lower value as compared to competitors' offerings, the upper-boundary of the price discretion is determined by competitors' offerings. In this situation, value-informed pricing can be considered bad practice.

Competition-informed pricing informs the firm about the prices of competitors' market offerings in the light of their market positions. In order to increase profit

regression analysis, a R^2 difference test or a Chow-test.

margins competition-informed pricing is generally bad practice. In general, it informs about prices of competitors' offerings and not about the maximum price that the customer is willing to pay for the product to be launched. There are however two exceptions. First, if the product offers value equal to, or lower than competitors, competition-informed pricing informs about the maximum price that the customer will pay for the product.¹ This information contributes to higher relative profit margins if the product is developed, produced and marketed at lower relative costs. Second, if the product offers superior customer value, the firm is enabled to set higher prices as compared to competitors' products. In this situation, competition-informed pricing informs the firm with respect to the question: Higher than what? In other words: it informs the firm about the value offered by competitors' products and the prices they charge for it. This provides a basis to set prices higher than competitors. With respect to the question: How much higher?, the firm will need information on the customer's value perception. Thus, to increase profit margins for products that offer higher customer value, a combination of competition- and value-informed pricing will be best practice.

TABLE 4.9
Pricing "Best" and "Bad" Practices

Pricing practice:	Relative profit margin		Market performance	
	Best practice	Bad practice	Best practice	Bad practice
Value-informed	If relative product advantage is high	If relative product advantage is low	Under all conditions	Never
Competition-informed	If relative product advantage and relative product costs are low	In general	If relative product advantage is low and competitive intensity is high	If relative product advantage is low and competitive intensity is low
	If relative product advantage is high		If relative product advantage is high and competitive intensity is low	If relative product advantage is high and competitive intensity is high
Cost-informed	Somewhat good if relative product advantage is low	Somewhat bad if relative product advantage is high	If relative product advantage is high and competitive intensity is high	If relative product advantage is high and competitive intensity is low
			If relative product advantage is low and competitive intensity is low	If relative product advantage is low and competitive intensity is high

¹ In addition the three-way interaction of competition-informed pricing, relative product advantage, and relative product costs suggests that competition-informed pricing is (1) best practice if both relative product advantage and relative product costs are high, (2) bad practice if relative product costs are low and relative product advantage is high, and (3) bad practice if relative product costs are high and

Cost-informed pricing informs the firm about the lower-boundary of the products’ price discretion. The rationale of our hypothesis was that, if the product offers superior value, thereby enabling the firm to ask premium prices, a focus on the lower boundary of the price discretion will lead to prices lower than necessary and thus decrease profit margins. Vice versa, for products that offer customer value lower than, or equal to competitors’ products, information on the lower-boundary of the price discretion would be more important, since it informs the firm about the minimum price level at which the product still has a positive margin. We found however only indicative evidence for such a relationship. Thus, we conclude that cost-informed pricing is a “somewhat” bad practice to increase profit margins if relative product advantage is high and that it’s a “somewhat” best practice if relative product advantage is low.

In summary, value-informed pricing is best practice to increase profit margins if the product offers superior customer value; competition-informed pricing is generally bad practice, but it is best practice if the product offers superior value or if the product offers equal or lower relative value at lower costs; and cost-informed pricing is somewhat bad practice if the product offers superior value. Pricing best practices to increase profit margins are summarized in Figure 4.5.

FIGURE 4.5
Pricing Best Practices to Increase New Product Profit Margins¹

		Relative Resource-Produced Value		
		Lower	Parity	Higher
Relative Resource Costs	Lower	Competition-inf. (Cost-informed)	Competition-inf. (Cost-informed)	Value-informed Competition-inf.
	Parity	(Cost-informed)	(Cost-informed)	Value-informed Competition-inf.
	Higher	(Cost-informed)	(Cost-informed)	Value-informed Competition-inf.

¹ Cost-informed pricing is in parentheses since the evidence here is indicative.

New product market performance. In order to achieve new product market performance, value-informed pricing is always best practice. We find no interactions with relative product advantage and/or competitive intensity. Value-informed pricing informs the firm on how the customer perceives the product which enables the firm to

relative product advantage is low. These implications are captured by our discussion of the two-way interaction and the simple effect of competition-informed pricing.

set prices that match the customer's value perception. This increases the likelihood that the customer will decide to purchase the product and contributes to market performance in all situations.

With respect to competition-informed pricing, we find a negative three-way interaction of competition-informed pricing, relative product advantage and competitive intensity. This finding suggests that hypothesis 6 is contingent on competitive intensity. Interpreting this effect leads to four implications.

- If relative product advantage is low and competitive intensity high, competition-informed pricing is best practice. Launching a “me-too” product in a market with fierce competition, is typically intended to compete directly with one or more existing alternatives on the market, for example to retain customers that otherwise would leave. In this situation, the offering should be as similar as possible to the existing alternatives, and the price should thus be based on competition information. The message to the customer is: you'll get here whatever they offer you elsewhere.
- If a product with low relative advantage is launched in market with little competitive intensity, competition-informed pricing is bad practice. In order to convince customers to purchase a product in a stable market, it should differentiate in its price since the value it offers to customers is equal. A price should therefore not be based on competition-information: there's more to gain if the product can be based on customer value information. Firms may differentiate their offering for example by price structure, price policies, or in conditions of payment. The message to the customer is: overall you'll be better off if you accept our offer.
- If a product with high relative product advantage is launched in a market with low competitive intensity, competition-informed pricing is again best practice. In a stable market, superior value is unlikely to erode rapidly. The relative advantage of the product is therefore sustainable. Sales will increase if a product is launched that offers relatively more value at a price comparable to the existing inferior alternatives on the market. This price is not necessarily lower competitors' prices, but it is necessarily comparable. In fact, the price may be higher to signal superior value. The message to the customer is: here you'll get more value for money than elsewhere.
- If a product with high relative product advantage is launched in a market with high competitive intensity, competition-informed pricing is again bad practice. In a market with high competition, superior value is less likely to be sustainable. Any comparison with competition should be avoided in order to increase sales and market share. The message to the customer is: what you'll get here, you won't find anywhere else.

With respect to cost-informed pricing, we find a significant positive three-way interaction effect with competitive intensity and relative product advantage. This effect has four implications.

- If relative product advantage is high and competitive intensity is high, cost-informed pricing can be considered best practice to increase sales and market share. In this situation, an increased understanding of the bottom-line may for example anticipate future price drops to safeguard market share, or it may charge strategic sharp prices: distribute costs over the product line enabling the firm to charge low prices for offerings that customers use as cues in their purchase decisions (Monroe 1990).
- On the other hand: if a product with high relative advantage is launched in a market with low competitive intensity, cost-informed pricing is bad practice. In this situation, there is no direct need to anticipate future price competition. A price that is lower than necessary may confuse customers about the value that is offered. They might perceive it as an offering of lower value than intended by the firm.
- If a product with low relative advantage is launched in a market with low intensity of competition, cost-informed pricing is best practice. In this situation, there is little competition on the market, but the firm decides to develop a product that competes directly with an existing product on the market. Thus, the firm chooses not to compete on value, but on price. An increased understanding of the lower-boundary of the price discretion will result in strategic sharp prices that will pull away customers from competitors.
- Finally, if a product with low relative advantage is launched in a market with intense competition, cost-informed pricing is bad practice. If competition is intense, and the firm decides to charge strategic sharp prices, two reactions are possible: either competitors will launch products of superior value and degrade the innovation to a position of lower value, or competitors react with price drops, which might result in a price war (Heil and Helsen 2001).

TABLE 4.10
Pricing Best Practices to Achieve New Product Market Performance

		Relative Product Advantage	
		Low	High
Competitive Intensity	Low	Value-informed Cost-Informed	Value-Informed Competition-Informed
	High	Value-Informed Competition-Informed	Value-informed Cost-Informed

In summary, value-informed pricing is best practice to achieve new product market performance under all conditions; competition-informed pricing is only best practice if there are strategic reasons to focus the customer's attention on a direct comparison between the product and alternatives offered by competitors; and cost-informed pricing is best practice only if there are strategic reasons to compete on the basis of lower prices. These findings are summarized in Table 4.10.

Generalizability. The concepts used in this study are based on R-A theory, which claims to be developing into a general theory of competition (Hunt 2000a). We found no evidence that our analyses are contingent on specific conditions with respect to product or market types. As such, R-A theory provides a basis for a general understanding of the successful use of pricing practices. Considering that our data cover a much larger variety of products and markets than chapter 3, the findings in both chapters are comparable. The only exception is that we found in chapter 3 a moderating effect of competitive intensity on the relationship between value-informed pricing and pricing success. This effect is not found in this chapter, not even under the contingency that the product is a business-to-business durable product. The results of chapter 3 however are based on a sample that covers only a small portion of business-to-business durable products: industrial capital goods. Industrial capital goods are typically purchased once by a customer in a process of negotiations with a seller in which the customer puts a lot of effort in information search. During these negotiations it may confront a seller with competitors' offerings. This may decrease the effect of value-informed pricing in a market with intense competition. This situation however seems relatively unique to markets for industrial capital goods. In other situations customers may use different choice strategies to deal with situations in which information is more scarce (Tellis and Gaeth 1990).

In this chapter, we modified measures of pricing practices developed in chapter 3 for industrial capital goods. These measures are now valid in and applicable to a variety of products and markets. They can be used in future research on pricing practices as well as in studies focussing on different topics in the domains of marketing strategy and product innovation. These measures are also applicable as a diagnostic tool for business practice.

6.2 Other Issues of Pricing From a R-A Perspective

In addition to the finding that R-A theory provides a basis for a general understanding of the success of pricing practices, our findings make R-A theory more complete. First, they provide a basis to understand the relation between market positions of products and relative prices. As suggested by R-A theory, we find that products offering relatively equal value produced at relatively equal costs, have relatively equal prices. In the same way, we find that products offering superior value, produced at higher costs have relatively higher prices. These results however are not generalizable over all market positions: we find no support for the hypothesis predicting that relative product advantage times relative product costs explains relative prices. Instead, we find that higher relative costs lead to higher relative prices, and that higher product advantage does so only under the condition that the price of the product is based on value- and/or competitor information. In other words: higher relative costs enforce firms to charge premium prices if they want the product to be profitable.

Considering that customers are willing to pay a higher price for higher quality, as is shown by Tellis and Wernerfelt (1987) in a consumer context, firms are enabled to set higher prices than competitors if they offer higher relative value. However, if the condition of superior relative value is satisfied, firms will only charge price premiums if they want to, and if they are capable of doing so. Firms may not want to charge premium prices because customers are more sensitive to lower prices than they are to higher value, as is shown by Anderson, Thomson, and Wynstra (2000) for purchasers of industrial capital goods. In addition, meta-analyses show that price sensitivity plays an important role in many markets (Tellis 1986). Our results also suggest that firms are simply not capable of charging higher prices because the firm is insufficiently informed about customers' value perceptions and competitors' offerings. This finding is in line with Urbany's (2001) argument that managers' natural tendency to make decisions that can be justified objectively may lead to lower prices. It suggests that the process of R-A competition, doesn't necessarily lead to price differentials as argued by Hunt and Arnett (2001). It only does if the firm is sufficiently competent of pricing.

Second, the results suggest that firms can be superior in pricing like they can be superiorly effective and/or efficient in the process of R-A competition. The contingencies on the successful use of pricing practices suggest that the role of pricing in competition is a clever game. If a price is based on inappropriate information, consequences with respect to profit margins and market performance may hit hard on the firm. Since pricing explains more variance of relative profit margins and market performance for products without a position of competitive advantage, a good pricing job may compensate for weaknesses in terms of efficiency and effectiveness. This suggests that underestimating the importance of pricing may be a crucial mistake in business practice as is argued by Monroe (1993). Assuming that pricing practices are rooted in an organization's resources, these findings suggest that pricing is a competence (Dutta, Bergen, and Zbaracki 2001), that although it is related to market position, may contribute to an organizations performance in addition to competences that make the firm compete more effective and/or efficient.

6.3 Limitations and Future Research

Our study is limited in several ways that provide opportunities for future research. First, although we found no evidence that our measures are prone to single method or social response biases, future research may collect data from different sources to strengthen internal validity and test the effects of the independent variables on dependent variables when collected from different sources and/or at different points in time. Second, future research may also improve the difference score measures on relative profit margin and relative price discretion used in this study. These measurement instruments offer an interesting contribution since they can't be measured otherwise. Such research efforts should focus on the improvement of the

reliability of these scales, in particular of the measure on relative profit margin. Reliability of the difference score measures can be improved by improving reliability of the components. The scale of relative product costs can be improved by adding new items, since we dropped one item in the scale purification procedure. Relative price is measured in this study by a single item. Future research may develop a multiple item scale on this construct by exploring its domain of monetary amount and conditions of payment. Third, our study doesn't include pricing strategies (Noble and Gruca 1999a; Tellis 1988) or pricing policies (chapter 2). Pricing strategies may reveal new insights in the reasons underlying the finding that products offering superior value often have prices equal to or lower than competitors' offerings. Is it because they consciously decided not to charge a price premium because they follow for example a penetration strategy, or do firms simply lack the ability to base a price on customer value and/or competitor information? Pricing policies such as negotiations might explain why we found a negative effect of value-informed pricing on pricing success in markets with intense competition in chapter 3, whereas this effect is absent in the broader sample used in this chapter. Fourth, our sample is limited to firms in The Netherlands and to industries where firms may improve market positions by launching new products or services. Future research may examine cross cultural differences in pricing behavior and the application of R-A theory to pricing behavior of retailers and in industries not covered by our sample such as trading and agriculture. In addition, future research may focus on price change decisions as opposed to price settings for new products. This is in particular interesting with respect to products that end up in positions of competitive disadvantage: can firms breath new life in these products by innovative price changes?

Chapter 5:

Leveraging Customer and Competitor Orientations for Value Creation and Value Extraction¹

'We see a market offering as having two elemental characteristics: its value and its price.'

James C. Anderson and James A. Narus, 1998.

1. INTRODUCTION

In this chapter value-informed pricing will be integrated in a framework of market orientation and new product performance. Market orientation refers to organizational behaviors with respect to the generation, dissemination and use of market information on current and potential customers and competitors (Jaworski and Kohli 1996; Narver and Slater 1990), that are rooted in an organizational culture (Deshpandé, Farley, and Webster 1993; Deshpandé and Webster 1989; Homburg and Pflesser 2000). Market orientation literature suggests a positive relation between the degree of market orientation and business performance (Kohli and Jaworski 1990; Narver and Slater 1990). The rationale for this relation is that a market orientation results in the creation of superior customer value, leading to superior business performance (Day 1994; Slater 1997). This view is consistent with R-A theory that views market orientation as a higher-order resource, i.e. a competence that enables an organization to leverage its resources in such a way that they result in the creation of superior customer value (Hunt and Morgan 1995). The view of market orientation as a competence is valid since a market orientation is relatively rare, difficult to develop, and focussing on the creation of customer value (Hunt and Morgan 1995).

Consistently, many studies report a positive relationship between the degree of market orientation and business performance (e.g. Homburg and Pflesser 2000; Jaworski and

¹ With Ruud T. Frambach and Theo M.M. Verhallen. The authors thank Marcel Croon for his helpful comments on the analyses presented in this chapter.

Kohli 1993; Matsuno and Mentzer 2000; Narver and Slater 1990; Ruekert 1992; Slater and Narver 1994). Despite this evidence, some “equivocality” remains in the relationship between market orientation and performance (Matsuno and Mentzer 2000, p. 1). Several studies report no or mixed effects of strategic or market orientation on performance (Atuahene-Gima 1996; Han, Kim, and Srivastava 1998; Jaworski and Kohli 1993; Pelham and Wilson 1995; Voss and Giraud Voss 2000).

Examining the literature on the market orientation-performance relationship, three reasons for this equivocality can be distinguished. First, although market orientation is often measured as the average of its components it can be questioned whether the components all have the same effects on performance. Han, Kim, and Srivastava (1998) find different strengths of the market orientation components in their relationship with innovation, and Gatignon and Xuereb (1997) find different strategic orientations to be successful under different market circumstances. Second, there is some equivocality with respect to the question whether market orientation leads to performance directly, or whether this relationship is mediated by other variables. Several studies find evidence for the existence of mediating variables that refer to the creation of customer value, including innovation (Han, Kim, and Srivastava 1998), technological orientation (Han, Kim, and Kim 2001), and new product characteristics, like product advantage (Atuahene-Gima 1995; Gatignon and Xuereb 1997). Homburg and Pflesser (2000) show that market orientation leads to market performance en route to financial performance. Third, several studies examine whether market orientation-performance relationship is moderated by environmental characteristics (e.g. Gatignon and Xuereb 1997; Jaworski and Kohli 1993; Slater and Narver 1994). These studies however provide mixed or even contradictory results on this moderating effect.

A shortcoming that applies to the whole body of literature on the market orientation-performance relationship, is that these studies overlook the possibility that a market orientation doesn't contribute to value creation alone, but that it also contributes to value extraction. Value extraction can be seen as the process by which the firm enables its pricing competence (Dutta, Zbaracki, and Bergen 2001). A pricing competence enables a firm to turn a market position into financial performance by extracting value from the customer (chapter 2). The importance of customer value information in pricing is common knowledge in marketing (e.g. Cressman 1999; Monroe 1990; Nagle and Holden 1995). Strategic marketing literature however paid scant attention to the role of pricing in achieving and sustaining competitive advantage.

It is the purpose of this chapter to reduce the equivocality surrounding the strategic orientation-performance relationship. Specifically, its contributions are four-fold. First, we review the market orientation literature to develop a framework that incorporates the mediating variables as identified in the literature (technological orientation and relative product advantage) in the relationships between both customer and competitor orientation with market performance en route to financial performance. Second, we introduce value-informed pricing as a mediating variable thereby including routes of value extraction along the routes of value creation in our framework. Third, we explore whether these routes of value creation and value extraction are stable across different business environments. This may increase our insights in the moderating role of the business environment in the market orientation-performance relationship. Fourth, we will empirically test our framework in the context of new product development and launch. Innovations are key to creating and sustaining positions of competitive advantage (Hunt and Morgan 1997) and strategic orientations play an important role in producing the organizational behaviors that lead to successful innovations (Gatignon and Xuereb 1997).

We approach the market orientation-performance relationship as one of leveraging competences, in which we see customer and competitor orientations as different competences that may enhance value creation and value extraction. We follow the competence-based view of the firm, which is in line with the R-A perspective taken in this thesis (Hunt 2000a; Hunt and Lambe 2000). To this respect we follow the terminology of Sanchez, Heene, and Thomas (1996, p. 7-8) in which a competence is an ability to sustain the coordinated deployment of assets in a way that help the firm achieve its goals. According to Hunt and Morgan (1995), the ultimate goal of a business is superior financial performance. We see customer and competitor orientations as competences (Hunt and Morgan 1995) that can be leveraged for value creation and value extraction which both will lead to performance. Leveraging competences refers to the application of a firm's existing competences to current or new market opportunities in ways that do not require qualitative changes in the firm's assets or competencies (Sanchez, Heene, and Thomas 1996). Similarly, it is argued in chapter 2 that a pricing competence deploys resources such as customer and competitor orientations in ways that help the firm achieve its goals.

In the next section we will discuss the evidence on the market orientation-performance relationship in some more detail. Next, we develop our conceptual framework and hypotheses. Section 3 describes the methods, section 4 the results, followed by a discussion section.

2. BACKGROUND

Results of studies examining the presence of a direct effect between market orientation and a variety of performance measures is mixed. Positive relations are found between market orientation and managers' perceptions of overall firm performance (Jaworski and Kohli 1993), managers' perceptions of financial performance (Pelham and Wilson 1995; Siguaw, Simpson and Baker 1998; Slater and Narver 1994), managers' perceptions of sales growth (Slater and Narver 1994) and managers' perceptions of new product performance (Atuahene-Gima 1995; 1996; Pelham and Wilson 1995; Slater and Narver 1994). On the other hand, a number of analyses don't show a direct positive effect between market orientation and business performance. Market orientation has not been found to relate to a firm's actual market share (Jaworski and Kohli 1993) or actual net income growth (Han, Kim, and Srivastava 1998). Atuahene-Gima (1996) reports no direct effect for market orientation on perceived new product performance; Pelham and Wilson (1995) report no direct effect for market orientation on perceived market share or perceived growth in market share.

Explanations for the mixed results on the market orientation-performance relationship may be (1) that different components of a market orientation lead to performance in different ways; (2) that market orientation may not be related to performance directly but that the relationship is mediated by other variables; (3) that the relationship may not be robust across all possible contexts; and (4) that the strength of the relationship depends on the performance measures used.

First, marketing literature tends to conceptualize market orientation as an average of its components. These are either generation and dissemination of information on customers and competitors as well as responsiveness to this information (Homburg and Pflesser 2000; Jaworski and Kohli 1993; Matsuno and Mentzer 2000; Moorman and Rust 1999); or strategic orientations towards customers *and* competitors (Han, Kim, and Kim 2001; Pelham and Wilson 1995); or strategic orientations towards customers and competitors, also including interfunctional coordination (Greenley 1995; Moorman and Rust 1999; Narver and Slater 1990; Slater and Narver 1994); or behavioral and strategic components of an orientation to both customers and competitors (Atuahene-Gima 1995; 1996; Ruekert 1992). Han, Kim, and Srivastava (1998) study the effects of customer orientation, competitor orientation, and interfunctional coordination as separate constructs and find different strengths of their effects on innovativeness. Gatignon and Xuereb (1997) also distinguish between customer and competitor orientation and introduce technology as a third strategic orientation (see also Voss and Giraud Voss 2000). They conclude that market circumstances determine which strategic orientations

lead to performance. In their view, interfunctional coordination is not a component of strategic orientation. Instead it facilitates the implementation of a strategic orientation, thus strengthening the effects of strategic orientations on outcomes (see also Hunt and Morgan 1995).

Second, it has been suggested that a market orientation leads to innovation and market performance en route to financial performance (Deshpandé, Farley, and Webster 1993; Han, Kim, and Srivastava 1998; Homburg and Pflesser 2000; Hurley and Hult 1998). Homburg and Pflesser (2000) find support for a relationship between market-oriented behavior, followed by market performance, finally leading to financial performance. Han, Kim, and Srivastava (1998) find positive effects of market orientation on objectively measured technical and administrative innovation in a retail banking industry sample. Subsequently they find that innovation is related to performance. Han, Kim, and Kim (2001) find technological orientation, followed by innovativeness of the product line, to be mediators of the market orientation-performance relationship in a variety of consumer industries. On the product level Gatignon and Xuereb (1997) find mediating effects of product characteristics like relative product advantage and relative product costs. In addition, Atuahene-Gima (1995) finds a positive effect of market orientation on several product characteristics and new product development activities.

Third, a number of studies examined whether the market orientation-performance relationship is robust across different contexts, including regional differences, industry differences and market differences. In a regional context, the market orientation-performance relationship seems fairly robust in developed market economies. Selness, Jaworski, and Kohli (1997) and Deshpandé and Farley (1998) compare European with U.S. companies and find that the regional context has no significant effect on either market orientation or performance. Across different industry contexts, Narver and Slater (1990) find a difference in the relationship between market orientation and perceived return on assets, between commodity and noncommodity business units. Deshpandé and Farley (1998) study effects of industry characteristics - using a total of seven categories of consumer, industrial and service industries - but find that these have little or no effect on performance or market orientation. Voss and Giraud-Voss (2000) examine the relationship in a context that is likely to minimize the positive impact of a market orientation on performance: the non-profit professional theater industry. Their results are mixed, which they explain by the high rates of artistic innovation and largely unpredictable customer preferences.

These findings suggest that the market orientation-performance relationship, is more likely to be contingent on characteristics of the business environment than on specific

industry-related conditions. The empirical evidence for moderating effects of the business environment however is mixed and sometimes contradictory. Several studies report effects that are not significant. Jaworski and Kohli (1993) find that market turbulence, technological turbulence and competitive intensity do not affect the market orientation-performance relationship. Slater and Narver (1994) examine a variety of environmental characteristics. Although they find mixed results they conclude that the market orientation-performance relationship is fairly robust across different business environments. Similarly, Pelham, and Wilson (1995) find no or little effects for market dynamism or competitive intensity, and Han, Kim, and Srivastava (1998) find no effect of market turbulence. Others find stronger effects of market orientation on performance in dynamic markets. Atuahene-Gima (1995) finds a stronger relation between market orientation and performance in situations of high rather than low competitive intensity and hostility. Homburg and Pflesser (2000) find a stronger effect of market-oriented behaviors on performance in situations of high market dynamism than in situations of low market dynamism. Han, Kim, and Srivastava (1998) report a positive moderating effect of technological turbulence. These findings are contradictory with some of Slater and Narver's (1994) findings, and those reported by Greenley (1995). Greenley (1995, p. 1) concludes that "market orientation may not be advantageous in highly turbulent markets, and in conditions of low customer power and high technological change." Gatignon and Xuereb (1997) find that a customer orientation is more favorable in situations of high uncertainty, whereas a competitor orientation is more favorable in situations of low uncertainty. Although most studies offer explanations for their findings, the literature is lacking a general explanation covering all findings.

Fourth, the market orientation-performance relationship, as well as the moderating effects of environmental characteristics within this relationship depend on the performance measure used. Matsuno and Mentzer (2000) argue that market orientation leads to different types of performance for different strategy types. They examine the moderating effect of Miles and Snow's (1978) strategic types on the market orientation performance relationship, differentiating between performance measures that organizations of a specific strategic type are likely to aim for (efficiency for defenders, and sales growth for prospectors, while analyzers take a position in between them). In a subsample analysis the proposed effects are confirmed, suggesting that market orientation-performance relationship is strategy type specific.

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

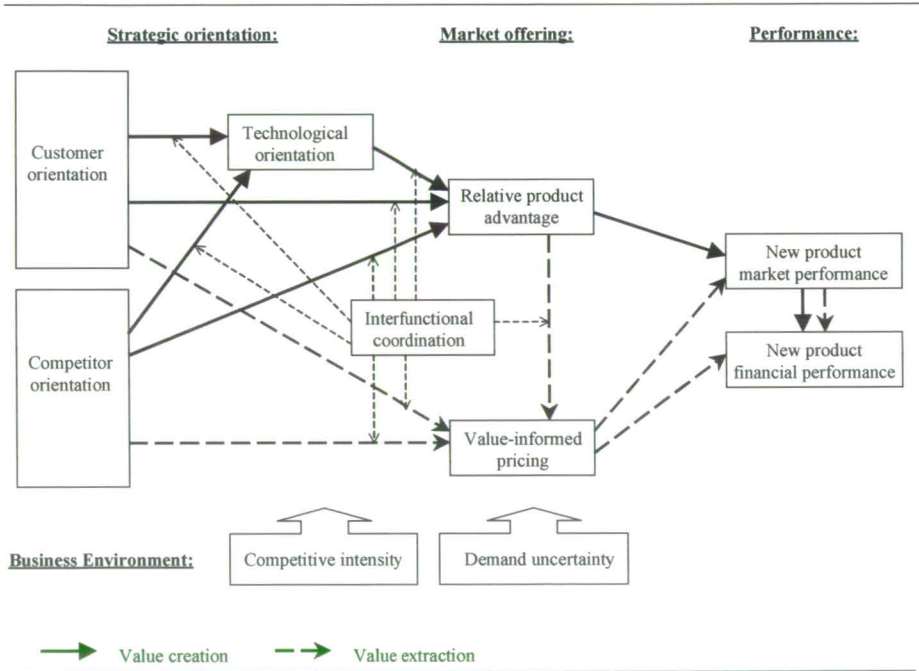
The conceptual framework is presented in Figure 5.1. In this framework, customer and competitor orientation (Narver and Slater 1990) are the basic competences that can be leveraged for value creation and value extraction (the latter indicated with dashed arrows). Value creation represents the leveraging of customer and competitor orientations, in order to achieve superior financial performance through the creation of customer value. Since our framework is defined on the new product level, customer value is represented by relative product advantage: the sumtotal of all benefits customers perceive to obtain if they accept the market offering, as compared to competitors' offerings (see chapter 3). Relative product advantage is a consequence of the three strategic orientations: customer, competitor and technological orientation. A strategic orientation "reflects the strategic directions implemented by a firm to create the proper behaviors for the continuous superior performance of the business." (Gatignon and Xuereb 1997, p. 78). In the framework, technological orientation is an antecedent to relative product advantage like customer and competitor orientations are (similar to frameworks of Gatignon and Xuereb 1997 and Voss and Giraud Voss 2000), as well as a mediator in the relation between customer or competitor orientation and relative product advantage (similar to the framework of Han, Kim, and Kim 2001). Narver and Slater (1990) also include interfunctional coordination -referring to collaboration and information exchange between different business functions- as a component of market orientation. Following Hunt and Morgan (1995) as well as Gatignon and Xuereb (1997), we see interfunctional coordination as a facilitator of the implementation of a strategic orientation rather than as a component of a strategic orientation.

The final goal of a firm is superior financial performance. Financial performance is a consequence of a market position that is build by market offerings (Hunt and Morgan 1995). We measure performance on the level of the market offering: new product performance. We distinguish between new product market performance, which refers to the effectiveness of a firm's activities on the market (Homburg and Pflesser 2000), and new product financial performance (Moorman and Miner 1997). Specifically, we define new product performance as the degree to which a new product achieves its objectives. This way we avoid the effects of strategy type on the relationship between strategic orientation and performance due to variation of strategic objectives (Matsuno and Mentzer 2000).

Value extraction refers to the leveraging of customer and competitor orientations to determine a price that the customer will pay in return for receiving value if it accepts the market offering. Customer and competitor orientation both antecede value-informed

pricing, which is defined as the degree to which the price is based on the sum of total benefits customers perceive they will receive if they accept the market offering (chapter 3). As compared to other pricing practices such as competitor-informed and cost-informed pricing, value-informed pricing typically relates to value extraction for products that aim to deliver superior customer value (see chapters 3 and 4). Since market orientation literature is built on the idea that a market orientation enables a firm to create superior value (Day 1994; Slater 1997), value-informed pricing is typically the pricing practice that should be included in the market orientation-performance relationship.

FIGURE 5.1
Conceptual Framework



We include two characteristics of the market environment: competitive intensity and demand uncertainty. Competitive intensity refers to changes in the marketplace as a consequence of competitors' actions. It reflects the velocity of the process of R-A competition. This dimension typically erodes the value created and is thus seen as the most important dimension affecting the market orientation-performance relationship (Homburg and Pflesser 2000). In addition, we include demand uncertainty, which is proposed in the pricing literature to be a characteristic of the business environment that

affects pricing practice (Noble and Gruca 1999). Demand uncertainty refers to the degree to which preferences, tastes, and demand can be predicted in the market (Gatignon and Xuereb 1997). Thus, together competitive intensity and demand uncertainty represent key characteristics of the business environment that refer to the predictability and sustainability of the value created in new products.

3.1 Value Creation

Whereas several studies see a technological orientation as a supplement or alternative for a market orientation (Gatignon and Xuereb 1997; Voss and Giraud Voss 2000), several others provided clear rationales for a causal relationship between market and technological orientations (Han, Kim, and Kim 2001; Han, Kim, and Srivastava 1998). In line with the idea that organizations learn from the process of competition (Hunt and Morgan 1997), a customer and competitor orientation provide the organization with a cultural basis to continuously question the current success and work on the improvement of market positions through innovation (Han, Kim, and Kim 2001). Firms with a strong customer orientation are likely to consider new technology in the development of innovations that meet customer needs, while a strong competitor orientation promotes a focus on competitive technologies or even a proactive role in developing one (Han, Kim, and Kim 2001). In the retail banking industry, Han, Kim and Srivastava (1998) show a positive effect of customer and competitor orientation on innovativeness. Han, Kim and Kim (2001) further generalize this finding by showing that customer and competitor orientations stimulate incumbents' technological orientations. Thus, we hypothesize that customer and competitor orientations stimulate a technological orientation:

H₁: Technological orientation is positively influenced by (a) customer orientation, and (b) competitor orientation.

Relative product advantage represents the relative value of a market offering. As such it results from the leverage of the firm's resources as its strategic orientation. Customers, competitors and innovation provide the three basic elements in the external and internal environments of a firm on the basis of which firms can create value (Gatignon and Xuereb 1997; Voss and Giraud Voss 2000). Thus a customer, competitor and technological orientation are all likely to positively affect relative product advantage. Han, Kim, and Kim (2001) show that firms pursuing a strong technological orientation have product portfolio's that also include more discontinuous innovations, thus offering unique advantages to the customer. In addition to technological orientation, we hypothesize direct effects of customer and competitor orientations since the creation of customer value (which is essentially a customer's perception compared to competitors) will need direct input of information on customers and competitors. Atuahene-Gima

(1995) reports a positive effect of market orientation on product advantage, while Gatignon and Xuereb (1997) report a mediating effect of product advantage on the relationship between the three strategic orientations and new product performance. Thus, we hypothesize:

H₂: (a) Customer orientation, (b) competitor orientation, and (c) technological orientation have a positive influence on relative product advantage.

Interfunctional coordination is increasingly seen as a facilitator of the implementation of a strategic orientation (Gatignon and Xuereb 1997; Hunt and Morgan 1995; Voss and Giraud Voss 2000), rather than as a component of market orientation (Narver and Slater 1990). Gatignon and Xuereb (1997) and Voss and Giraud Voss (2000) find a moderating effect of interfunctional coordination on relationships between strategic orientations and outcomes such as relative product advantage and performance. As interfunctional coordination facilitates the leverage of customer and competitor orientations for value creation, it may affect all paths in our model that lead from customer and competitor orientation to relative product advantage, both directly and via technological orientation. Thus, we hypothesize:

H₃: The relations between (a) customer orientation and technological orientation, (b) competitor orientation and technological orientation, (c) customer orientation and relative product advantage, (d) competitor orientation and relative product advantage, and (e) technological orientation and relative product advantage, are stronger for firms with a high interfunctional coordination than for firms with a low interfunctional coordination.

Relative product advantage suggests that a product offers superior customer value. In their meta-analysis of antecedents to new product performance, Henard and Szymanski (2001) find product advantage to be a major driver of new product performance. It is however unlikely that product advantage directly results in financial performance. Creating customer value is likely to yield higher customer satisfaction, loyalty, attract new customers and increase sales at current customers. Thus, creating customer value enhances performance in the marketplace, which in turn results in financial performance. The relation between market performance and financial performance is found by Homburg and Pflesser (2000) and motivated by the financial performance implications of customer satisfaction, loyalty and market share. In line with these results, we hypothesize:

- H₄: Relative product advantage has a positive influence on new product market performance.
- H₅: New product market performance has a positive influence on new product financial performance.

3.2 Value Extraction

In order to base a price on the perceived benefits of a market offering compared to competitors' market offerings (i.e. value-informed pricing), a firm needs information on the customers' perceptions of the market offering, as well as on that of the competitors' offerings. Information on competitors' offerings is required since a firm will not be able to estimate the relative value it delivers to customers, when it has no information on the offerings of competitors targeting the same market or market segment. Customer and competitor information is typically processed to a larger degree by firms that have stronger customer and competitor orientations (Day and Nedungadi 1994). Thus, we hypothesize:

- H₆: Value-informed pricing is positively influenced by (a) customer orientation, and (b) competitor orientation.

Value extraction and value creation are not unrelated. We expect a positive effect of relative product advantage on value-informed pricing for two reasons. First, the relative value offered by a market offering determines the ceiling of the price discretion, thus making customer value a more effective basis for a price setting when the market offering offers more or higher relative benefits (see chapters 3 and 4). Second, as described in chapter 2, value-contributing processes such as new product development, and pricing processes such as a new product price setting process are strongly related. In fact, it is suggested that each process on value creation has its counterpart on value extraction. Thus, an information flow from a new product development process to a pricing process is likely to occur. If the new product development process is injected with information on how benefits can be created to the customer, this information is likely to be reused when a price for the product is determined thus resulting in value-informed pricing. For these reasons we hypothesize a positive effect of relative product advantage on value-informed pricing:

- H₇: Relative product advantage has a positive influence on value-informed pricing.

Gatignon and Xuereb (1997) find that interfunctional coordination strengthens the impact of strategic orientations on new product development. In the same way we expect that it strengthens the relationship between strategic orientations and value-informed pricing.

Like new product development, pricing is typically a business process that cuts across business functions (Day 1994; see also chapter 2). In order to base a price on the ambiguous information of customers' perceptions, a pricing process will benefit from close collaboration and a free flow of information between different business functions. Since processes of value creation are strongly connected with processes on value extraction, we also hypothesize that the effect of relative product advantage on value-informed pricing is stronger for interfunctionally coordinated firms:

H₈: The influence of (a) customer orientation, (b) competitor orientation, and (c) relative product advantage, on value-informed pricing is stronger for firms with a strong interfunctional coordination, than for firms with a weak interfunctional coordination.

As indicated in chapter 2, price affects performance in two ways. First, there is substantial evidence that customers in industrial contexts (Anderson, Thomson, and Wynstra 2000) as well as consumer contexts (Monroe 1990) create their own perceptions of both price and value in purchase decisions. This suggests that customers may turn their backs on firms that create superior value, but set inappropriate price levels. As such, value-informed pricing affects new product market performance. New product market performance in turn results in new product financial performance as hypothesized in hypothesis 5. Second, price incorporates a certain profit margin that directly affects financial performance. Customer value information informs the organization about the upper-limit of the price discretion. Value-informed pricing thus enables organizations to set prices not lower than necessary, thereby increasing the profit margin¹.

H₉: Value-Informed pricing has a positive influence on (a) new product market performance, and (b) new product financial performance.

3.3 The Business Environment

As discussed previously, the collective evidence of prior studies on the moderating role of the business environment is ambiguous in the sense that some studies find a positive moderating effect, some a negative effect and some no effect of competitive intensity, demand uncertainty or related dimensions of the business environment. These studies however didn't include all mediating effects in value creation and value extraction that are included in our model. Noble and Gruca (1999a) find demand uncertainty as an antecedent of cost-based pricing following the rationale that in an uncertain environment the firm has less accurate information about the ceiling of the price discretion and thus

¹ Hypothesis 9b should be viewed in disregard of the results of chapter 4, which is a distinct project.

focuses more on the floor of the price discretion that is determined by costs. Following these rationales we would expect that demand uncertainty has a direct negative effect on value-informed pricing. However, these findings are not controlled for strategic orientation and value creation. Competence-based theory typically sees business environmental conditions as exogenous, in the sense that leveraging certain competences may be contingent on the business environment. This typically differentiates a competence-based view from an industrial economics view in which business behavior is determined by the conditions of a certain industry (Hunt and Lambe 2000). Following this competence-based view, we hypothesize generally that the strategic orientation-new product performance relationship is different in situations of high and low demand uncertainty and different in situations of high and low competitive intensity. If the hypotheses are supported, we explore which paths in our model account for these differences.

- H₁₀: The market orientation-new product financial performance relationship is different in markets with a high competitive intensity as compared to markets with a low competitive intensity.
- H₁₁: The strategic orientation-new product financial performance relationship is different in markets with a high demand uncertainty as compared to markets with a low demand uncertainty.

4. METHODS

The data collection procedure and operationalization of this study are presented in chapter 4.

4.1 Model and Hypotheses Testing Approach

We test the hypotheses in a structural equation model using EQS 5.7 (Bentler 1995; Bentler and Wu 1995). The model to be tested is depicted in Figure 5.2. In the hypothesized model, we include direct effects of the three strategic orientations on new product market performance in the model to control for effects of these orientations that are not captured by the mediating variables in our study (Gatignon and Xuereb 1997). Demand uncertainty is included in the model to estimate its direct effect on value-informed pricing as suggested by Noble and Gruca (1999a).

However, this model suggests 76 parameters to be estimated simultaneously (16 path coefficients, 22 factor loadings, 3 variances of independent latent variables, 30 variances

of error terms, and 5 variances of disturbance terms in prediction of unobserved factors)¹. Since our sample size is too small to obtain the advised 5-1 data-parameter ratio (Kline 1998), we use predicted latent scores in the structural model. Recently, Skrondal and Laake (2001) as well as Croon (2002) presented evidence that this approach is a reliable solution for a problematic data-parameter ratio in testing structural models. Specifically, this method suggests to (1) calculate latent scores using Bartlett's method in series of independent factor analyses, (2) compute a covariance matrix in which the variances are restricted to 1.00 (the diagonal in the covariance matrix), and (3) to run the structural model from the covariance matrix (Skrondal and Laake 2001). Following this approach, the number of parameters estimated simultaneously reduces to 24 (16 path coefficients, 3 variances associated with independent variables, and 5 error terms). The covariance matrix obtained from predicted scores is shown in Table 5.1.

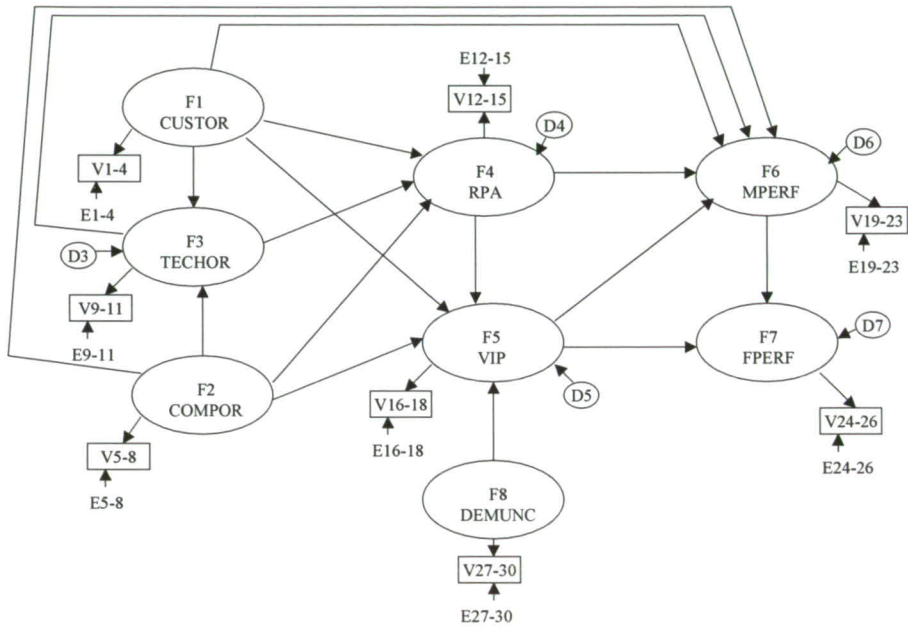
After discussing the results of the proposed model, we test for the mediating effect of the proposed mediating variables in the model using Baron and Kenny's (1986) test for identification of mediating variables. Next, we will test hypotheses 3 and 8 on the moderating effects of interfunctional coordination using EQS multigroup analysis (Byrne 1994). On the basis of a median split we divide our sample in two groups representing firms with high and low interfunctional coordination.² First, we test our model constraining all paths to be equal in both groups. Next, we release the hypothesized path and estimate it separately in the group representing high interfunctional coordination and the group representing low interfunctional coordination (Kline 1998). The hypothesis is supported if (1) there is a significant improvement of overall model fit measured by a chi-square difference test, and (2) the separate estimates suggest the hypothesized direction. This likelihood ratio difference test is the conventional approach for adding parameters to a model (Chou and Bentler 1990).

Hypotheses 10 and 11 on the moderating effects of competitive intensity and demand uncertainty don't hypothesize on specific paths, but suggest a significant difference of the model in general leaving the paths that cause this difference to be explored afterwards. These hypotheses therefore can't be tested using a likelihood ratio difference test. In **stead, we use a Lagrange Multiplier (LM) test** for adding parameters (Chou and Bentler 1990). The LM test can be applied to EQS multigroup analysis for **releasing constraints** (Byrne 1994). Specifically, we use the LM-incremental method (Green, Thompson, and Poirier 1999). It shows whether the model is significantly different between the two groups and indicates the paths that are responsible for this difference.

¹ The number of estimated factor loadings doesn't equal the number of observed variables since in EQS each latent factor has one observed variable fixed at 1 (Byrne 1994).

² Cases tied at the median will be ascribed to the group of high values.

FIGURE 5.2
Hypothesized Model



In which:

- CUSTOR = Customer orientation
- COMPOR = Competitor orientation
- TECHOR = Technological orientation
- RPA = Relative product advantage
- VIP = Value-informed pricing
- MPERF = Market performance
- FPERF = Financial performance
- DEMUNC = Demand uncertainty
- F = Unobserved (latent) factor
- V = Observed variable
- D = Residual error (disturbance) in prediction of unobserved factor
- E = Measurement error associated with observed variable

TABLE 5.1
Covariance Matrix

	CUSTOR	COMPOR	TECHOR	RPA	VIP	MPERF	FPERF	DEMUNC
CUSTOR	1.000							
COMPOR	.356	1.000						
TECHOR	.264	.312	1.000					
RPA	.276	.020	.268	1.000				
VIP	.212	.162	.248	.239	1.000			
MPERF	.188	.218	.276	.376	.369	1.000		
FPERF	.146	.154	.154	.193	.342	.630	1.000	
DEMUNC	.069	.008	.124	.041	.023	-.059	-.080	1.000

5. RESULTS

5.1 The Hypothesized Model

Results of the model are presented in Table 5.2. The Comparative Fit Index (CFI) is recommended as a measure of structural equation model fit (Bentler 1990). The overall fit of the hypothesized model is satisfying since it is above the threshold of CFI > .90 (Bentler 1992). Hypothesis 1 is supported since customer and competitor orientation both have a significant positive effect on technological orientation. In line with hypotheses 2a and 2c customer orientation and technological orientation have a positive effect on relative product advantage. Competitor orientation surprisingly has a negative effect on relative product advantage, which is contrary to hypothesis 2b. In support of hypothesis 4 relative product advantage positively affects new product market performance, which itself has a strong positive effect on new product financial performance supporting hypothesis 5.

TABLE 5.2
Model Estimates for the Hypothesized Model

Hypothesis	Path	Standardized estimate	Z
1 (a)	CUSTOR → TECHOR	.178	2.24*
1 (b)	COMPOR → TECHOR	.254	3.19***
2 (a)	CUSTOR → RPA	.262	3.35***
2 (b)	COMPOR → RPA	-.149	-1.87*
2 (c)	TECHOR → RPA	.239	2.95**
4	RPA → MPERF	.300	3.72***
5	MPERF → FPERF	.622	8.93***
6 (a)	CUSTOR → VIP	.115	1.36
6 (b)	COMPOR → VIP	.118	1.47
7	RPA → VIP	.208	2.46**
9 (a)	VIP → MPERF	.258	3.40***
9 (b)	VIP → FPERF	.011	.15
	DEMUNC → VIP	.006	.08
	CUSTOR → MPERF	.028	-.36
	COMPOR → MPERF	.151	1.97*
	TECHOR → MPERF	.093	1.19
Goodness of fit:			
CFI		.904	
Chi-square (df)		28.19** (12)	

*: $p < .05$

** : $p < .01$

***: $p < .001$

Hypothesis 6a predicting a positive effect of customer orientation, and hypothesis 6b predicting a positive effect of competitor orientation on value-informed pricing, are only indicative ($p < .1$). Hypothesis 7 predicting a positive effect of relative product advantage on value-informed pricing is supported. In line with hypothesis 9a value-informed pricing has a direct positive effect on new product market performance. Hypothesis 9b predicting

a direct positive effect of value-informed on new product financial performance is rejected. Of the three paths from strategic orientations directly to new product market performance, only competitor orientation is significant. The path from demand uncertainty to value-informed pricing is not significant, which supports the view that demand uncertainty has no direct effect on pricing behavior.¹

If demand uncertainty is not included, the hypothesized model suggests 17 mediating effects. These are tested, using Baron and Kenny's (1986) test for mediation (B-K). Results are reported in Table 5.3. According to test 1, technological orientation is a significant mediator within the relationships between customer orientation and relative product advantage. A similar effect is found for competitor orientation (test 2). The negative direct effect of competitor orientation on relative product advantage, found in Table 5.2, doesn't strongly effect the relationship between relative product advantage and new product market performance since it is only indicative (test 4, $p < .1$). Relative product advantage mediates the relationships from customer orientation, as well technological orientation to market performance (tests 3 and 5), and market performance mediates the relationship between relative product advantage and financial performance (test 15). This results in three significant routes of value creation from strategic orientations to financial new product performance (Cohen and Cohen 1983).² The first, starting at customer orientation, leading to new product financial performance via relative product advantage and new product market performance. The other starting at competitor and customer orientation, affecting technological orientation, followed by relative product advantage, and via new product market performance finally leading to new product financial performance.

With respect to value extraction, customer orientation doesn't lead to new product market performance (test 6), nor to new product financial performance (test 7) via value-informed pricing. Value-informed pricing is no mediator in the relationship between competitor orientation and new product financial performance either (test 9), while the mediating effect with new product market performance is only indicative ($p < .1$). In fact,

¹ LM test results for adding parameters to the hypothesized model were examined (Chou and Bentler 1990). These results suggest a significant increase of model fit if customer and competitor orientation are allowed to covary. A covariance between these variables would theoretically be justified since both are key components of market orientation (Jaworski and Kohli 1996; Narver and Slater 1990). Including this covariance results in a chi-square of 8.78 ($df = 11$) and thus to a chi-square/df ratio below 2. On the basis of CFI it however leads to an overfitted model ($CFI = 1.00$). Therefore we decide not to include this covariance. A check of the parameter estimates reveals that this decision has a minor impact on the parameter estimates of the two options. In addition, the results suggest no significant increase of model fit when paths are added to the model that could be theoretically relevant, like direct effects of strategic orientations to new product financial performance.

² Specifically, Cohen and Cohen (1983) suggest that complex indirect effects that include four or more variables, can be taken as significant if all of its component path coefficients are significant.

value-extraction, appears to be primarily rooted in value-creation, since the effect of relative product advantage on new product market performance mediated by value-informed pricing, is significant (test 13). Customer orientation (test 10) and technological orientation (test 12) both have a positive effect on value-informed pricing via relative product advantage. The negative effect of competitor orientation on value-informed pricing via relative product advantage is only indicative (test 11, $p < .1$). These routes lead to financial performance only indirectly via new product market performance (test 16) and not directly to financial performance (test 14). In summary, we find that value extraction is primarily rooted in value creation. We find no evidence that customer orientation leads to performance via value-informed pricing, while the effect of competitor orientation is only indicative. Value-informed pricing and its effects on performance, is essentially a consequence of the creation of relative product advantage, which is itself anteceded by customer orientation, and customer and competitor orientations via technological orientation. The evidence that the negative direct effect of competitor orientation on relative product advantage decreases the degree of value-informed pricing is weak. The merits of value-informed pricing focus on its effects on new product market performance since we find no routes of value extraction that affect

TABLE 5.3
Mediation Test Results

	Mediation (A → B → C)	Unstandardized coefficient	Unstandardized coefficient	B-K
		(standard error)	(standard error)	
		A → B	B → C	
1.	CUSTOR → TECHOR → RPA	.175 (.078)	.245 (.083)	1.72*
2.	COMPOR → TECHOR → RPA	.250 (.078)	.245 (.083)	2.12*
3.	CUSTOR → RPA → MPERF	.265 (.079)	.294 (.097)	2.20*
4.	COMPOR → RPA → MPERF	-.151 (.080)	.294 (.097)	-1.54
5.	TECHOR → RPA → MPERF	.245 (.083)	.294 (.097)	2.08*
6.	CUSTOR → VIP → MPERF	.114 (.084)	.257 (.076)	1.21
7.	CUSTOR → VIP → FPERF	.114 (.084)	.011 (.070)	.13
8.	COMPOR → VIP → MPERF	.117 (.080)	.257 (.076)	1.30
9.	COMPOR → VIP → FPERF	.117 (.080)	.011 (.070)	.13
10.	CUSTOR → RPA → VIP	.265 (.079)	.205 (.083)	1.93*
11.	COMPOR → RPA → VIP	-.151 (.080)	.205 (.083)	1.43
12.	TECHOR → RPA → VIP	.245 (.083)	.205 (.083)	1.83*
13.	RPA → VIP → MPERF	.205 (.083)	.257 (.076)	2.44**
14.	RPA → VIP → FPERF	.205 (.083)	.011 (.070)	.15
15.	RPA → MPERF → FPERF	.294 (.097)	.626 (.070)	2.85**
16.	VIP → MPERF → FPERF	.257 (.076)	.626 (.070)	3.15***
17.	CUSTOR → MPERF → FPERF	-.027 (.077)	.626 (.070)	-.35
18.	COMPOR → MPERF → FPERF	.150 (.076)	.626 (.070)	1.92*
19.	TECHOR → MPERF → FPERF	.094 (.079)	.626 (.070)	.85

*: $p < .05$

** : $p < .01$

***: $p < .001$

financial performance directly. In addition to these routes of value creation and value extraction, also the route from competitor orientation via new product market performance to new product financial performance is significant (test 17).

In summary, we find strong evidence for most of our hypotheses on value creation and mixed evidence for our hypotheses on value extraction. Hypotheses 2a, 2c, 4, and 5 on the effects of customer orientation and technological orientation in routes of value creation are supported. Competitor orientation has a positive effect in value creation via technological orientation supporting hypothesis 1b, as well as a negative direct effect on relative product advantage contrary to our prediction in hypothesis 2b. This negative effect of competitor orientation in value creation however has only weak consequences in the connections with market performance and value-informed pricing. In addition, we find a direct positive effect of competitor orientation on performance beyond the hypothesized routes of value creation and value extraction. We come back to these findings in the discussion section. Two important findings with respect to value extraction don't support our hypotheses. First, we find no direct effect of value-informed pricing on new product financial performance (hypothesis 9b). The hypothesized positive effect of value-informed pricing on new product market performance is however supported (hypothesis 9a). This suggests that financial performance is generated in the market through value extraction. Second, the effects of customer and competitor orientation on value-informed pricing are only indicative (hypotheses 6a and 6b). The route of competitor orientation on new product market performance via value-informed pricing is indicative, while the route of customer orientation is absent. In support of hypothesis 7, we find a positive effect of relative product advantage on value-informed pricing, which suggests that value extraction is predominantly rooted in value creation. Thus, we find that there's no easy way to gain financial performance: first value should be created and the price should be set in accordance with this value in the customers' perceptions in order to achieve market performance which will lead to financial performance.

5.2 Interfunctional Coordination

Hypothesis 3 predicts moderating effects of interfunctional coordination on the relationships between customer and competitor orientation with technological orientation and relative product advantage, as well as on the relationship between technological orientation with relative product advantage. Hypothesis 8 predicts moderating effects of interfunctional coordination on the relationships of customer orientation, competitor orientation, and relative product advantage with value-informed pricing. As described before, we test these hypotheses with a likelihood ratio difference test (Kline 1998).

Results are reported in Table 5.4.¹ Except for hypothesis 8c, predicting the relationship between relative product advantage and value-informed pricing, none of the chi-square increments is significant. Estimated separately, relative product advantage has a very strong significant effect on value-informed pricing for firms with a strong interfunctional coordination, whereas it has a slightly negative, nonsignificant effect for firms with a weak interfunctional coordination. Thus hypothesis 8c is supported, while hypothesis 8a, 8b, and hypothesis 3 are rejected. In addition, no significant effects are found in the control paths leading from strategic orientation to new product market performance.

TABLE 5.4
Likelihood Ratio Difference Test Results on Interfunctional Coordination

Hypothesis	Path	Chi-square difference (1 df)	Standardized coefficients	
			High	Low
3a	CUSTOR → TECHOR	.56		
3b	COMPOR → TECHOR	.35		
3c	CUSTOR → RPA	-.45		
3d	COMPOR → RPA	-.41		
3e	TECHOR → RPA	.41		
8a	CUSTOR → VIP	.15		
8b	COMPOR → VIP	.00		
8c	RPA → VIP	6.50*	.385***	-.036
	CUSTOR → MPERF	.28		
	COMPOR → MPERF	.03		
	TECHOR → MPERF	.50		

*: $p < .05$

**: $p < .01$

***: $p < .001$

This is an important finding on the role that interfunctional coordination plays in a market-oriented organization, since our results suggests that its role comes down to the connection between value creation and value extraction. This finding suggests that the relationship between relative product advantage and value-informed pricing is not a consequence of the fact that organizations that create more value can ask higher prices and thus increase their margins, but that this relationship should be interpreted as an organizational process. In this process, information is exchanged between those who participate in new product development and those who participate in new product pricing. This finding is in line with the finding that value-informed pricing doesn't lead directly to financial performance. Interfunctional coordination connects value creation and value extraction, resulting in a coherent market offering.

¹ In the multiple group analyses, the variable demand uncertainty is not included in the model.

5.3 Business Environment

We use an LM test to test hypotheses 10 and 11 predicting that our model is different in situations of high and low competitive intensity and high and low demand uncertainty. The results with respect to hypothesis 10 are reported in Table 5.5. The second column reports the paths in order of sequence as they are suggested to be released by the LM-incremental method. The third column shows univariate increments in chi-square of each of these paths and the fourth column cumulative chi-square increments. Each path to be released would result in separate estimations of the parameter in groups of high and low competitive intensity, thus increasing the degrees of freedom as indicated in the fifth column. The sixth column shows the probability related to the cumulative chi-square increment. For example, step 2 suggests that releasing the paths CUSTOR → MPERF and TECHOR → RPA, would lead to a chi-square increment of 5.68 with 2 degrees of freedom, which is not significant (probability = .058). Since none of the steps suggests a chi-square increment with a probability below .05, the LM-incremental method suggests none of the paths to be released (Green, Thompson, and Poirier 1999). In other words: hypothesis 10 can be rejected since our model fits the data equally well in markets with a high competitive intensity and markets with a low competitive intensity.

TABLE 5.5
LM Test Results on Competitive Intensity

Step	Path (Hypothesis)	Chi-square increments		Df	Probability
		Univariate	Cumulative multivariate		
1.	CUSTOR → MPERF	3.37	3.37	1	.066
2.	TECHOR → RPA	2.31	5.68	2	.058
3.	RPA → VIP	1.51	7.19	3	.066
4.	CUSTOR → TECHOR	1.48	8.67	4	.070
5.	VIP → FPERF	1.26	9.93	5	.077
6.	COMPOR → VIP	1.12	11.04	6	.087
7.	COMPOR → TECHOR	1.08	12.12	7	.097
8.	CUSTOR → RPA	1.07	13.19	8	.106
9.	COMPOR → RPA	.87	14.05	9	.120
10.	VIP → MPERF	.55	14.60	10	.147
11.	TECHOR → MPERF	.36	14.96	11	.184
12.	CUSTOR → VIP	.28	15.23	12	.229
13.	RPA → MPERF	.14	15.37	13	.285
14.	COMPOR → MPERF	.17	15.54	14	.342
15.	MPERF → FPERF	.10	15.64	15	.406

The results with respect to hypothesis 11 on demand uncertainty are reported in Table 5.6. The LM test results show a significant increase of model fit in the first 11 steps. As such, there appears to be a significant difference in our model in situations of high demand uncertainty as compared to low demand uncertainty, supporting hypothesis 11. Next, we will explore the paths that cause this difference as well as the direction of the

effects. Using a probability level of .05, we release the paths indicated in the first 11 steps and estimate these parameters separately in the groups of high and low demand uncertainty (Green, Thompson, and Poirier 1999).¹ Separate estimation of the path COMPOR → MPERF shows that the positive effect of competitor orientation on new product market performance, beyond routes of value creation and value extraction, is only present in markets with a low demand uncertainty (step 1). In the same situation technological orientation has a positive direct effect on new product market performance, beyond routes of value creation and value extraction (step 4). Markets of low demand uncertainty also show a positive effect of technological orientation on relative product advantage which is absent in markets of high demand uncertainty (step 8). Remarkably, value-informed pricing has a direct negative effect on new product financial performance in markets of low demand uncertainty, which is contrary to our initial hypothesis 9b (step 2). The negative effect of competitor orientation on relative product advantage appears to be present only in markets with a high demand uncertainty (step 3), whereas the positive effect of customer orientation on relative product advantage appears to be much stronger

TABLE 5.6
LM Test Results on Demand Uncertainty

Step	Path (Hypothesis)	Chi-square increments			Df	Probability	Standardized Coefficients	
		Univariate	Cumulative	multivariate			High	Low
1.	COMPOR → MPERF	5.87*	5.87		1	.015	.033	.344***
2.	VIP → FPERF	3.32	9.19		2	.010	.119	-.185*
3.	COMPOR → RPA	1.76	10.94		3	.012	-.254**	-.013
4.	TECHOR → MPERF	1.59	12.53		4	.014	.027	.255**
5.	CUSTOR → VIP	1.56	14.09		5	.015	.243*	-.035
6.	RPA → VIP	2.50	16.59		6	.011	.094	.351**
7.	CUSTOR → RPA	1.11	17.70		7	.013	.387***	.107
8.	TECHOR → RPA	1.31	19.01		8	.015	.156	.354**
9.	MPERF → FPERF	.83	19.84		9	.019	.586***	.716***
10.	RPA → MPERF	.38	20.21		10	.027	.330**	.189*
11.	CUSTOR → MPERF	.42	20.64		11	.037	.007	-.020
12.	COMPOR → VIP	.09	20.73		12	.054		
13.	CUSTOR → TECHOR	.07	20.80		13	.077		
14.	VIP → MPERF	.04	20.83		14	.106		
15.	COMPOR → TECHOR	.02	20.85		15	.142		

*: $p < .05$

** : $p < .01$

***: $p < .001$

¹ Chou and Bentler (1990) as well as Green, Thompson, and Poirier (1999) advise a process of model modification that includes the use of the LM test as a first step, followed by a Wald test for dropping parameters. We don't include this second step in our analyses since EQS provides no Wald test in multigroup analyses. Thus, we have to bear in mind that releasing 11 paths might not lead to an optimal fit (Green, Thompson, and Poirier 1999). However, our aim here is not to optimize the fit of the model but to interpret differences in the model when applied to situations of high and low demand uncertainty.

in this situation (step 7). In markets with a high demand uncertainty, the positive effect of relative product advantage on value-informed pricing disappears (step 6), while a positive effect of customer orientation on value-informed pricing appears as was initially predicted in hypothesis 6a (step 5).

Differences in the last three steps are less sharp: the effect of new product market performance on new product financial performance is somewhat stronger in markets of low demand uncertainty (step 9), while the effect of relative product advantage on new product market performance is somewhat stronger in markets with a high demand uncertainty (step 10). The direct effect of customer orientation on new product market performance is absent in both situations (step 11). Thus, demand uncertainty affects the strategic orientation-new product financial performance relationship in many ways. We return to these comprehensive findings in the discussion section.

6. DISCUSSION

The objective of this study is to address the equivocality in the market orientation-performance relationship by developing and testing a conceptual model of customer and competitor orientations that lead via paths of value creation and value extraction to new product financial performance. We first discuss our results with respect to value creation, followed by value extraction. Next, we discuss our results pertaining to the role of the business environment in these relationships. Finally we summarize the roles of strategic orientations and interfunctional coordination in the market orientation-performance relationship. To ease interpretation of the results, the final model is presented in Figure 5.3.

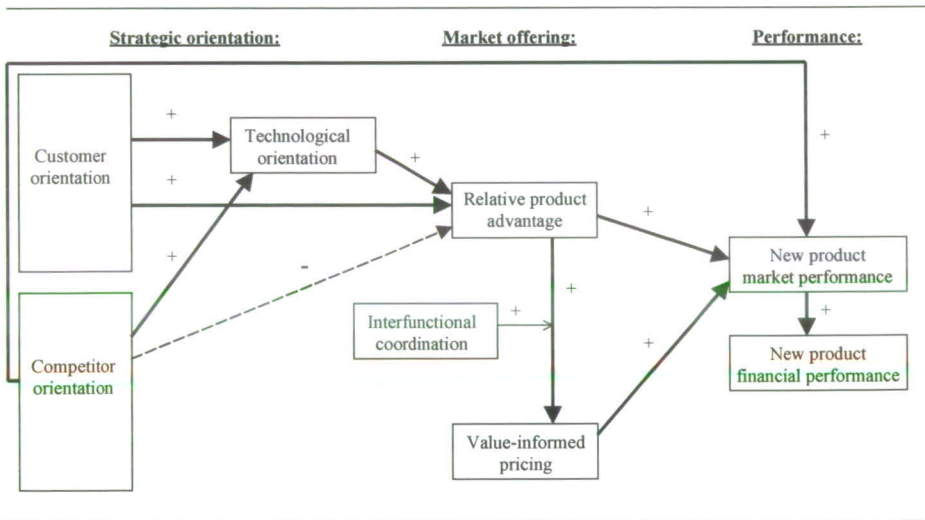
6.1 Value Creation

The rationale behind the market orientation-performance relationship is that a market orientation creates the appropriate behaviors to create value and in turn satisfy, attract and retain customers (Day 1994; Slater 1997). Our findings indicate that customer and competitor orientations both contribute to the creation of customer value. These effects however are mediated, leading to several paths of leveraging customer and competitor orientations to create customer value and achieve superior financial performance. All paths are mediated by new product market performance, before financial performance is achieved. This confirms the results of Homburg and Pflesser (2000) who found a mediating effect of market performance between market oriented behaviors and financial performance. New product market performance is anteceded by the value-created: in our study on the product level represented by relative product advantage. Consistent with

prior work (Henard and Szymanski 2001), relative product advantage is found to be an important factor influencing new product market performance. These results confirm the rationale of the market orientation-performance relationship: value is created to satisfy customers and thus perform in the market, which will lead to superior financial performance.

Our study provides new insights to how customer and competitor orientations should be leveraged to create superior customer value. Customer and competitor orientations both have significant routes to financial performance, via technological orientation, relative product advantage and new product market performance. This confirms the view obtained by Han, Kim, and Kim (2001) who position technological orientation as a mediating variable in the market orientation-performance relationship. It suggests that scanning competitors' actions and obtaining insights in customers' wants and needs can guide the use of technology in creating customer value. We also find direct effects of customer and competitor orientations on relative product advantage. These findings are in line with Gatignon and Xuereb's (1997) as well as Voss and Giraud Voss' (2000) studies who position technological orientation as an alternative strategic orientation on the same level as customer and competitor orientations.

FIGURE 5.3
Resulting Model of Value Creation and Value Extraction



Customer orientation has a positive effect on new product financial performance, via relative product advantage and new product market performance. This suggests that aside

the effect of customer orientation on the use of technology to create customer value, a customer orientation also directly influences relative product advantage. Competitor orientation is found to have a negative direct effect on relative product advantage. Since this effect has no strong “lasting” effect in routes of value creation and value extraction, it suggests that creating superior customer value by leveraging a competitor orientation, should focus technology. A focus on competitors’ use of technology will lead to the creation of superior value, whereas a direct focus on competitors’ actions in the market is more likely to result in the creation of value equal to, or lower than competitors’ offerings. Similarly, Frambach, Prabhu and Verhallen (1998) find no direct effect of competitor orientation on new product activity. Competitor orientation has a direct effect on new product market performance, which suggests a successful strategy of copying value offered in competitors’ products (positions 1 and 2 in Figure 1.3), or -more general- a better positioning of the product compared to competitors’ offerings.

6.2 Value Extraction

Value extraction is rooted in value creation. We find a strong effect of relative product advantage on value-informed pricing. Since this relationship is only present in firms with a strong interfunctional coordination, it suggests that this effect is not simply caused by the fact that products with a higher value can be priced more accordingly on value information. It rather suggests that organizational processes of value creation and value extraction are linked. This finding supports the view presented in chapter 2 on the relationship between what were called value-contributing processes and pricing processes. In addition to this connection between value creation and value extraction, we find indicative effects of customer and competitor orientations on value-informed pricing. Although these effects are not strong, it is interesting that the effect of competitor orientation is about equally strong as that of customer orientation. It gives some support to the underlying argument of hypothesis 6 that value-informed pricing requires a dual focus on customers and competitors to assess the customer’s value perception as compared to competitors’ offerings.

Though value-informed pricing has a strong effect on market performance, it doesn’t directly affect financial performance. This suggests that there is no possible way in which customer and competitor orientations can be leveraged leading directly to financial performance, without creating value and performing in the marketplace first. Our findings suggest that market performance is affected by value extraction about equally strong as value creation. This argument is in line with Anderson and Narus’ (1998) arguments for industrial markets that a successful market offering consists of a successful value proposition and a successful price setting. Firms that embrace the marketing concept

(Drucker 1954) and create superior customer value, are not by definition successful if they fail the challenge of value extraction.

6.3 The Business Environment

As discussed in section 2, prior studies find no or contradictory evidence for the moderating effects of several characteristics of the business environment. We examined our model in situations of high and low competitive intensity and in situations of high and low demand uncertainty. Competitive intensity is a key characteristic that could play a moderating role in a model of value creation and value extraction since it typically erodes the value created. Our model, which differentiates the effects of customer and competitor orientations and incorporates mediating variables of value creation and value extraction, is not significantly different in situations of high and low competitive intensity. To this respect it justifies Slater and Narver's (1994, p. 53) conclusion that "a market-oriented business should be prepared to achieve and sustain competitive advantage in any environmental situation."

Our results suggest that a market orientation is a successful competence in both certain and uncertain markets. Whether its various components should be leveraged and how they should be leveraged is however different in the two situations. We summarize our results for both situations in Figures 5.4. and 5.5.

High demand uncertainty. In markets with a high demand uncertainty, we find that a customer orientation can be leveraged for the creation of superior customer value. This finding is comparable to Gatignon and Xuereb's (1997) result, suggesting that gathering information on the customer reduces the otherwise overwhelming levels of uncertainty in the market. In markets with a high demand uncertainty, competitor orientation has no longer a direct effect on new product market performance. This effect is similar to Gatignon and Xuereb's (1997) finding and can be explained by the fact that copying competitors' products or positioning products relative to competitors' offerings, is not a successful strategy in uncertain markets since competitors struggle with the same degree of uncertainty in the market. Competitor orientation has a negative effect on relative product advantage and thus is better not be leveraged at all in uncertain markets. In uncertain markets customer and competitor orientations both enhance technological orientation. Technological orientation however has no longer a significant effect on relative product advantage. In uncertain markets, a technological orientation doesn't overcome the major problem, which is an understanding of what customers really want. It rather offers new technical features that are not necessarily perceived by customers as benefits that make a product more valuable than alternatives. In other words: a strong technological orientation might result in a myopic view on the market (Levitt 1960) if

FIGURE 5.4
Resulting Model in Markets with a High Demand Uncertainty

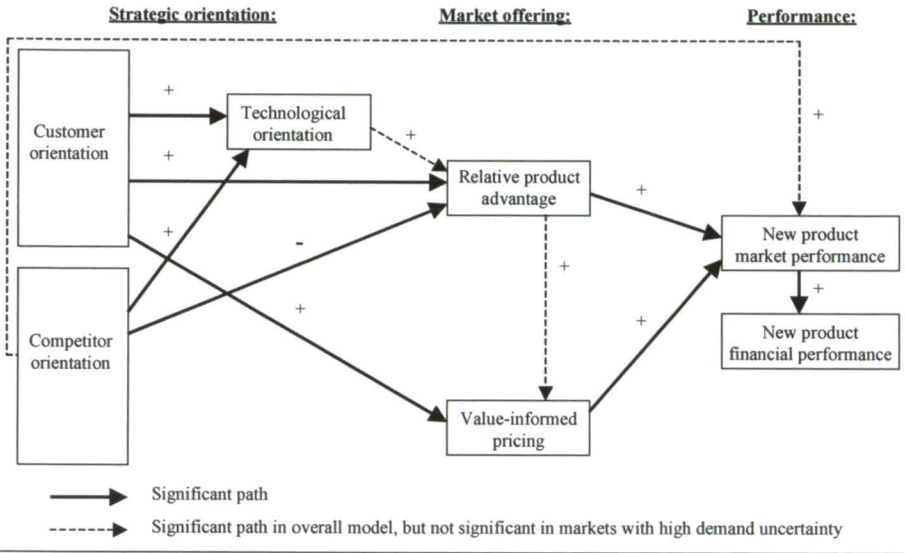
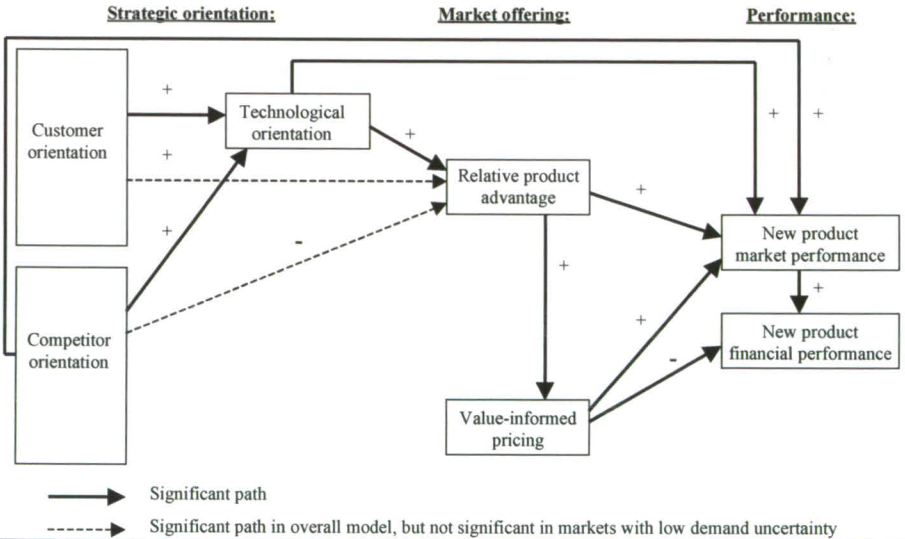


FIGURE 5.5
Resulting Model in Markets with a Low Demand Uncertainty



demand uncertainty is high. An example of a firm that successfully leveraged its customer orientation to create value in an uncertain market is Bang & Olufsen. Their design strategy in the market for consumer electronics contrasted sharply with competitors' strategies that focussed on technological benefits (Hartmann-Olesen 1999).

Another remarkable feature for markets with a high demand uncertainty is that value-informed pricing is directly anteceded by customer orientation. Noble and Gruca (1999a) find a direct effect of demand uncertainty on cost-informed pricing, which they explain on the basis of the difficulty of understanding customers' value perceptions in this environment. We however find no direct effect of demand uncertainty on value-informed pricing in our model that controls for value creation and strategic orientation. Instead, we find that in situations of high demand uncertainty, firms may leverage a customer orientation that reduces the uncertainty of the customer's price and value perception thereby enhancing value-informed pricing. Thus, a strong customer orientation is the best remedy for the difficulties of value-informed pricing in environments in which the customer's perception is difficult to understand.

In uncertain markets value extraction is a route to new product market and financial performance, independent from value creation. In situations of high demand uncertainty it is difficult to set prices in accordance with the customer's perception. As such, those firms with a distinctive pricing competence have a comparative advantage in their resources. These firms are likely to take superior decisions with respect to price signals, portfolio's, strategies, policies, levels and deviations (see chapter 2). Imagine a software producer that in contrast to its competitors sets no monetary price but asks a certain percentage of the customer's annual savings in return. This could be a sound pricing policy to overcome uncertainty, and it requires a strong understanding of the customers' perception, independent from the benefits produced in the offering.

In summary, a customer orientation is a distinctive competence in markets with a high demand uncertainty that can be leveraged independently for value creation and value extraction in order to achieve market performance and in turn financial performance.

Low demand uncertainty. In markets characterized by a low demand uncertainty, superior customer value is created on the basis of a technological orientation. Direct effects of customer and competitor orientations on relative product advantage are absent in this situation. In markets with a low demand uncertainty, customer information is well available to all competitors and a customer orientation therefore will not result in the creation of superior value directly (Gatignon and Xuereb 1997). The creation of superior customer value can be achieved by leveraging customer and competitor orientations to

enhance a technological orientation. Apparently, in markets in which the customer's value perception is easily understood, a firm requires a technology push in order to set it apart from competitors. Value extraction is in this type of markets rooted in value creation. First, superior value should be created in order to set a price in accordance with the superior value offered. Both value creation and value extraction affect new product market performance in a positive way. We find however also a negative direct effect of value-informed pricing on new product financial performance. Launching innovations based on new technologies and representing superior value in easily predictable markets, requires a firm to convince its customers that the value of the new alternative should be perceived differently than the existing alternatives. In this situation customers are likely to have a low reservation price, and the firm is likely to follow a penetration strategy (Tellis 1986). This will go at the expense of short-term financial performance since prices are initially set lower.

In addition to creating superior customer value, leveraging a competitor orientation to launch products with equal or lower value than competitors may be a sound strategy in markets with a low uncertainty. More general, competitor orientation may enhance the positioning of the product in the market as compared to competitors' products (Gatignon and Xuereb 1997). In this situation, we also find a direct effect of technological orientation on new product market performance. In markets with a high certainty, a technological orientation can be used to optimize processes like service delivery and production. This may effect new product market performance, because it increases general processes additional to the market offering, and may provide a basis to make the organization more efficient and compete at lower prices.

With respect to customer and competitor orientations, our results are similar to those found by Gatignon and Xuereb (1997). With respect to technological orientation, our results contradict their findings, which suggest a more positive effect of technological orientation in uncertain markets. We offer two possible explanations for this difference. First, the difference may be caused by a geographic, or rather cultural difference between US markets in Gatignon and Xuereb's (1997) sample, and European, or in particular Dutch markets in our sample. Demand uncertainty may be related to relatively new markets, i.e. product categories in early stages of their life cycles. A possible explanation may be found in the cross-cultural difference in innovativeness between US and Dutch markets. Steenkamp, Ter Hofstede and Wedel (1998) show for example that consumer innovativeness is partly explained by cultural differences.

Second, it's possible that overall demand uncertainty has increased, i.e. what was perceived as high demand uncertainty five years ago, is now perceived as relatively

certain. High demand uncertainty typically relates to technology-intensive markets (John, Weiss, and Dutta 1999). A possible explanation is that many technology-intensive markets have become saturated with respect to the technology push in creating customer value over the last years. Technological orientation might have been a distinctive competence in many markets five years ago, now competitive advantage increasingly requires a superior understanding of customers' wants and needs. Nokia for example successfully leveraged its customer orientation in the mobile phone market, when it launched a mobile phone with replaceable fronts in different colors instead of new technical features.

6.4 The Market Orientation-Performance Relationship

The market orientation-performance relationship can't correctly be understood without differentiating its components and including multiple paths of value creation and value extraction. Different strategic orientations affect performance in different ways. We discuss the effects of customer orientation, competitor orientation, technological orientation and interfunctional coordination in subsequent order.

A customer orientation can be leveraged for the creation of customer value: it results directly in relative product advantage, which affects new product market performance and finally new product financial performance. It also affects technological orientation, which suggests that it injects new product development processes with customer information, resulting in technological innovations that satisfy customers. In markets with a high demand uncertainty, a customer orientation is the only strategic orientation that provides a strong basis for value creation. Since value extraction is rooted in value creation, the strongest effects of customer orientation in value creation is via relative product advantage. In situations of high demand uncertainty, a customer orientation can be leveraged for successful value extraction independent from value creation. In addition to its role in value creation and value extraction the contribution of customer orientation is nonexistent. This suggests, that a customer orientation has no positive effect on performance beyond its roles in creating and extracting value. Overall, these findings confirm the argument that a customer orientation is the core of a market-oriented organization (e.g. Slater 1997).

Competitor orientation also contributes to value creation via technological orientation: it stimulates the focus on competitor's use of technology, which might result in superior products. It has a negative effect on the creation of product advantage, meaning that by its nature of a focus on competitors it doesn't result directly in outperforming competitors. This negative direct effect in value creation has no lasting effect for performance or value extraction. The direct effect of competitor orientation on value-informed pricing is weak,

but it suggests that value-informed pricing requires a dual focus on customers and competitors. In addition, we found a direct effect of competitor orientation on new product market performance, which is stronger in markets that have a relatively certain demand. This suggests that a competitor orientation may strengthen strategies of creating equal or lower relative value at lower relative costs (Day and Nedungadi 1994; Frambach, Prabhu and Verhallen 1998). Overall, our findings suggest that a competitor orientation provides a firm with several virtues beyond those obtained by a customer orientation. This confirms the argument that a market-oriented firm is more than a firm with a strong customer orientation only (Slater and Narver 1998).

Technological orientation is enhanced by customer and competitor orientations. It contributes to the creation of value, especially in markets with a high degree of certainty. In addition, it may contribute to strategies of creating equal and lower value at lower costs in predictable markets. Technological orientation has a mediating effect between customer and competitor orientation and value extraction. As such, it fulfills a role in processing market information to develop new product based on technology. Rooted in a market-oriented culture, this process is inputted with market information. This information may be transferred to value extraction and result finally in prices based on customer value information.

The role of *interfunctional coordination* comes down to connecting the firm's efforts in value creation and value extraction. Thus it suggests that value creation and value extraction are strongly connected organizational processes (see chapter 2). This finding suggests that interfunctional coordination is especially crucial in the connection of value creation and value extraction, than that it is in facilitating the effect of strategic orientations on outcomes (Gatignon and Xuereb 1997; Voss and Giraud Voss 2000). In markets with a high demand uncertainty, its role becomes less important since value-extraction should rely here on a direct connection with a customer orientation.

6.5 Limitations and Future Research

First, our study is limited with respect to the use of single respondents. Although we found no evidence for a common method bias, future research may collect data from multiple respondents. Second, our study is not generalizable over trade and retail firms that were not included in the population. Also, our sample is limited to firms in The Netherlands. Future research may examine cross-national and cross-cultural differences in pricing behavior, as well as in the strategic orientation-performance relationship with respect to the role of technological orientation in value creation. Third, our study didn't include any variables that capture firms' strategies that focus on equal or lower value at lower costs. Future research may examine the mediating effect of relative costs, as well

as different pricing practices such as competition- and cost-informed pricing. In addition, our study examined the moderating effects of only two variables with respect to the business environment. However, many other variables may play a role (Slater and Narver 1994). Finally, our study clearly shows the interfunctional nature of a pricing process. Future research may examine these processes and their connections with value contributing processes more closely.

Chapter 6:

Money for Value: Conclusions and Implications

'Pricing is the moment of truth. All of marketing comes to focus in the pricing decision.'

E. Raymond Corey, 1962.

1. INTRODUCTION

This thesis deals with the question how organizations successfully can determine the price that they ask in return for the customer value they offer? The review of relevant literatures on pricing and creating customer value in chapter 1, recognizes that these literatures lack a theoretical perspective that (1) pays respect to the complexity of pricing as it occurs in organizational practice; (2) provides links with other streams of pricing research in stead of excluding them; (3) offers a way to develop normative statements about the success of pricing practices; and (4) relates pricing to the creation of customer value. It is argued that R-A theory provides a solid basis to develop such a perspective. Chapter 2 integrates price and pricing in R-A theory. It unravels the pricing competence in 10 different organizational processes and six decision areas. The role of price and pricing in the process are explicated: their relations with financial performance, market positions, resources, and learning. This description provides the basis for the subsequent chapters in which hypotheses are developed and empirically tested in the context of new product pricing. Chapters 3 and 4 focus on the relation between market positions and pricing. They examine the success and contingencies to success of three pricing practices that inform the firm on the market position and price discretion: value-, competition-, and cost-informed pricing. In addition, chapter 4 examines the effect of market positions on relative prices and the relative importance of pricing for products that occupy a position of competitive advantage, compared to products that don't occupy a position of competitive advantage. Chapter 5 relates pricing to resources. It focuses on the role of value-informed pricing in the market orientation-performance relationship. It

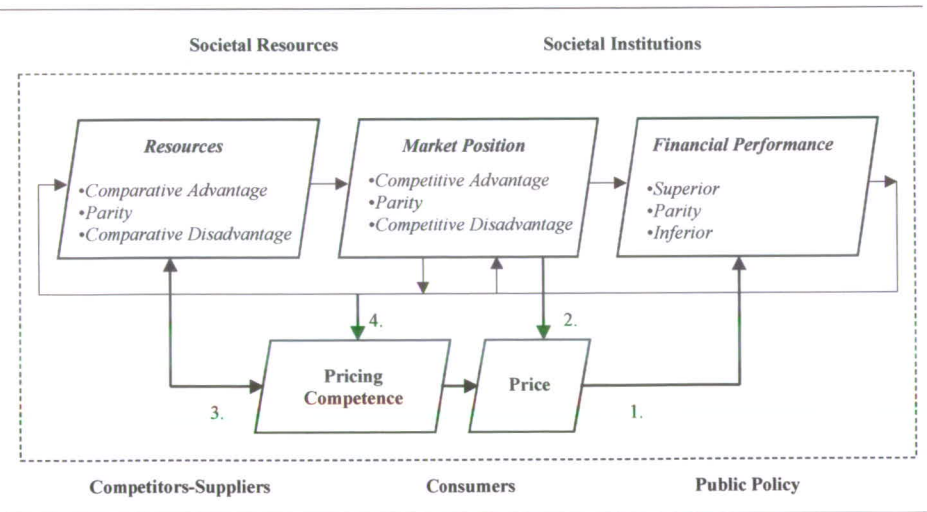
differentiates routes in which customer and competitor orientations are leveraged for value creation and value extraction.

This chapter draws conclusions from the previous chapters and subsequently it summarizes the contributions, and discusses implications for theory, business practice, teaching, public policy, and future research.

2. CONCLUSIONS

In a R-A perspective on pricing, pricing is a competence that enables a firm to turn its market position into financial performance by extracting value from the customer. Price is the monetary amount that a customer pays for obtaining the value offered by the firm, as well as the conditions of payment. Integrating these components in the process of R-A competition leads to Figure 6.1 (similar to Figure 2.1). This figure is essential in pricing from a R-A perspective. It is central to the descriptive theoretical outline in chapter 2 and provides a basis for the normative statements developed in chapters 3, 4, and 5.

FIGURE 6.1
Pricing in the Process of R-A Competition



In the process of competition the organization learns about its market position (Hunt and Morgan 1997). The information that becomes available can be used to assess the price discretion (arrow 4 in Figure 6.1). The relationship between these pricing practices

(value-, competition, and cost-informed pricing) and the success of price decisions is examined in chapters 3 and 4. Chapter 4 also examines the effect of market position on relative price (arrow 2) and the impact of pricing on performance (arrow 1) for products with and without positions of competitive advantage. In line with the process of R-A competition, chapter 5 studies the effect of customer, competitor and technological orientations as resources on relative product advantage, new product market performance and new product financial performance. It integrates value informed pricing in this framework, by examining its relationship with these resources (arrow 3) and with performance (arrow 1).

2.1 Price and Performance

Price affects financial performance because it affects profit margins and market performance. The latter is caused by the fact that customers make perceptions of both price and value. This affects their purchase intentions and subsequently the degree to which the firm performs in the market place. In chapter 4, evidence is found that market performance and profit margins affect the level of financial performance of new products. However, since we examine pricing on the new product level in stead of the firm level, this contribution is contingent on the price discretion of the product. Firms may launch products with a negative price discretion that are for example intended to increase sales of more profitable products in the product line, or that are intended to become profitable at later stages of the product lifecycle. In order to achieve financial performance the firm will need products in its product line that perform in the market place and have positive profit margins. Determining objectives of individual market offerings is therefore an important task in order to achieve financial performance.

No evidence is found for an “easy way” of achieving financial performance without achieving performance in the market place. No simple direct relationship between value-informed pricing and new product financial performance is found in chapter 5. Instead, this relationship is found to be mediated by new product market performance. However, if the product is launched in a market with a high degree of certainty, achieving market performance may go at the expense of short-term financial performance. In this situation, the firm needs to establish a foothold in the market first and only once a certain portion of the target market has adopted the innovation, the firm may raise its prices.

The view that creating superior customer value and subsequently base a price decision on the customer value created is a road to superior financial performance (e.g. Cressman 1999), is supported by the results in this thesis. Price is not the only element affecting the firm’s financial performance. Competition in R-A theory is essentially a process of non-price competition. Performance is therefore a consequence of the firm’s market position

determined by its relative resource-produced value and its relative resource costs. Chapter 5 finds effects of relative product advantage and value-informed pricing on new product market performance that are about equally strong. Chapter 4 finds that pricing practices have more explanatory power of market performance and relative margins for products that occupy no position of competitive advantage. In other words: firms that fail to compete more efficient and/or effective than competitors do, are more dependent on pricing to achieve financial performance than firms that are safe in positions of competitive advantage. This finding supports the argument that the process of R-A competition can't be fully understood without pricing.

2.2 Market Position and Price

Relative prices are constrained by relative value and relative costs. Value and costs establish respectively the upper- and lower-boundary of the price discretion. The relative price discretion thus constrains firms to charge prices higher or lower than competitors. Firms are however often not capable of understanding the upper-boundary of their price discretion. Relative costs are found to have a direct effect on relative prices: the higher relative costs, the higher relative prices should be if the firm wants the product to be profitable. Relative value, or relative product advantage, has no explanatory power of relative prices by itself. It only explains relative prices under the condition that the price is based on customer value information or competitor information. The process of R-A competition therefore only results in price differentials if the firm is sufficiently competent of pricing.

Pricing from a R-A perspective offers a sound explanation for the question why prices don't change the way predicted by neoclassical economics (Blinder, Canetti, Lebow, and Rudd 1998). If market positions change in the dynamic process of R-A competition, price discretions change. If prices are no longer within the price discretion, the firm is often enforced to change the price, or launch an innovation to strengthen its market position.

The findings support the view that the “general theory of competition” (Hunt 2000a) provides a basis for a generalizable perspective on pricing. Whereas chapter 3 provides evidence on the success and contingencies to success of pricing practices of markets for new industrial capital goods, chapter 4 makes an important contribution to the empirical generalizability. Results are found to be generalizable over industrial and consumer markets, physical products and services, as well as commodities and durables.

The concept of the price discretion gave rise to the conceptualization of pricing practices value-informed, competition-informed and cost-informed pricing in chapter 3. These pricing practices inform the firm respectively about the upper-boundary (value-

informed), the lower boundary of the price discretion (cost-informed), and prices of its referents in their relative market position (competition-informed). Understanding the ambiguous boundaries of the price discretion is of crucial importance to successful decision making in pricing. The success of pricing practices is contingent on the market position of the product. Specifically, the contribution of pricing practices to relative profit margins is contingent on the relative value offered by the product and the relative product costs. The contribution of pricing practices to new product market performance is contingent on the customer value context: the relative value offered by the product and the degree to which relative value is likely to erode in the market as a consequence of competitive intensity. A more elaborate discussion of the success and contingencies to success of these pricing practices can be found in chapter 4.

2.3 The Pricing Competence

Pricing is a competence. A pricing competence enables a firm to deploy resources of various kinds in ways that it (1) understands its price discretion, and (2) enabled with this knowledge can take price decisions that help the firm achieve its goals. Resources deployed by a pricing competence may take many forms. Pricing is as deeply engraved in the organization's processes as value creation is. In chapter 2 it is explained that each process in which an organization deploys resources to contribute to value creation at the expense of resource costs, has its counterpart in a pricing process. Pricing competences may be enhanced by the learning process that is given by the process of R-A competition (indicated by arrow 4 in Figure 6.1).

Pricing processes occur "in the shadow" of processes that contribute to value creation and that are directly related to them in the sense that they benefit from an open exchange of information. In general the results of chapter 5 suggest that customer and competitor orientations are leveraged to create value. They affect relative product advantage via technological orientation and in the case of customer orientation also directly, to enhance new product market performance and finally new product financial performance. Value extraction is rooted in value creation. The connection between the two is particularly strong if the firm has a strong interfunctional coordination.

In markets with a high demand uncertainty, value extraction is no longer rooted in value creation. Instead it is rooted directly in a customer orientation. Consistent with competence-based theory the results of chapter 5 suggest that the successful leverage of customer and competitor orientations for value creation and value extraction depend on certain characteristics of the business environment. Whereas the model is found to be stable across situations of high and low competitive intensity, it takes different forms depending on the degree of demand uncertainty. Both pricing and creating value are

particularly difficult in markets where demand and customers' perceptions are difficult to assess. Leveraging a customer orientation independently for value creation and value extraction helps to overcome these difficulties.

Firms with a strong pricing competence however are not only able to collect, disseminate and interpret information that provides them with a superior understanding of the price discretion, they also know what information should be used in the price decision regarding the product and market circumstances. The results of chapters 3 and 4 suggest that the success of value-, competition-, and cost-informed pricing depend on the market position of a product and the competitive intensity of the market. Chapter 4 shows that if an organization is incapable of value- and competition-informed pricing, it may charge prices that are too low.

Decision-making in pricing comprises a lot more than a decision on price level only. As outlined in chapter 2, decisions on price signals, portfolio, and planning bring the organization from the initial to the final price discretion, whereas decisions on price policy, price, and possibly deviations from that price bring it from the final price discretion to the monetary amount and conditions of payment charged by the firm for the value offered. In the empirical studies in this thesis price decisions are not explicitly included. It is important to keep in mind that the results refer not necessarily to decisions on price levels only. Firms with a superior understanding of the customer's value perception may for example anticipate future changes in the customer's perception in a price planning decision, bundle products and services in ways that increase perceived value, or take innovative price policy decisions such as charging a certain percentage of the customers' savings instead of using list and net prices. Similarly, firms with a superior understanding of their costs position may be enabled to take explicit decisions with respect to learning curve strategies that bring down costs over time, distribute fixed costs over the product line, or take price policy decisions that are considered highly risky by their competitors who are less able to make accurate costs assessments.

3. CONTRIBUTIONS

3.1 Contributions of the Empirical Studies

Chapter 3 is the first empirical study to examine the success of three pricing practices: value-, competition-, and cost-informed pricing. These pricing practices are conceptualized taking into account the nature in which they occur, i.e. in the context of an organizational process, and it is explained how they are different from pricing objectives and pricing strategies. The measurement of these pricing practices is a matter of concern.

Multiple item measures are developed that better fit the concepts and that are less vulnerable to social response biases than measures used in prior surveys. Using data from price decisions for new industrial capital goods, it shows that the success of these practices is contingent on the customer value context: relative product advantage and competitive intensity.

Chapter 4 further investigates the success and contingencies to success of pricing practices. It differentiates between the effects on new product market performance and relative profit margins and it introduces relative product costs as a moderating variable. It shows that the effects of pricing practices on new product market performance are except for value-informed pricing, contingent on relative product advantage and competitive intensity, whereas the effects on relative profit margins are contingent on relative product advantage and relative product costs. As compared to chapter 3, the generalizability of findings is strongly increased by testing the hypotheses on a sample that includes a variety of products from a variety of industries and markets. Measures of pricing practices are modified to become applicable to this broad context. In addition, chapter 4 contributes to our insights on two key issues of pricing from a R-A perspective. First, it examines the effect of market position on relative prices. Second, it examines the relative importance of pricing for products that occupy a position of competitive advantage and products that occupy no position of competitive advantage.

Chapter 5 studies the deployment of customer and competitor orientations to enhance value-informed pricing. The chapter contributes to a more precise understanding of the market orientation-performance relationship. This relationship is studied in many prior research efforts but this body of knowledge had not produced unequivocal results. The chapter reviews this body of literature and develops a framework that incorporates the mediating variables as identified in these studies (technological orientation and relative product advantage) in the relationship between both customer and competitor orientation with market performance en route to financial performance. Second, it introduces value-informed pricing as a mediating variable, thereby including routes of value extraction along the routes of value creation in the framework. Third it explores whether these routes of value creation and value extraction are stable across situations of high and low competitive intensity and high and low demand uncertainty. The model is tested on the data presented in chapter 4.

3.2 Contributions to Pricing Literature

R-A theory provides a basis for a perspective on pricing that (1) pays respect to the complexity of pricing as it occurs in organizational practice; (2) provides links with other streams of pricing research in stead of excluding them; (3) offers a way to develop

normative statements about the success of pricing practices; and (4) relates pricing to the creation of customer value.

- First, it explains the complexity of pricing in organizational practice since (1) a competence is complex by definition, (2) the boundaries of the price discretion are ambiguous and therefore difficult to assess, (3) price discretions are not stable over time but change when market positions change in the process of R-A competition, and (4) a pricing competence constitutes 10 different organizational processes and six decision areas of varying strategic levels.
- Second, pricing from a R-A perspectives offers an integration with pricing literature from different perspectives since these literatures can be relatively easy categorized according to the six decision areas in the pricing competence. As such, pricing from a R-A perspective claims to fill the gap between academic pricing research and pricing as it occurs in organizational practice that is often indicated by critical reviewers of pricing literature (Cressman 1999; Diamantopoulos 1991; Gijbrecchts 1993; Hall and Hitch 1939; Monroe and Della Bitta 1978; Monroe and Mazumdar 1988; Noble and Gruca 1999b; Oxenfeldt 1973; Rao 1984). Many contributions to pricing research focus on a single decision area, which explains why managers sometimes argue that their pricing job is more complex than the topics examined in academic literature. The conceptualization offered here could help managers in finding appropriate literatures as helpful tools for specific aspects of pricing as faced in organizational practice. Vice versa, it may help researchers to indicate the situations that require further research.
- Third, as shown in chapters 3, 4, and 5 pricing from a R-A perspective offers a basis to develop normative statements on pricing practices.
- Fourth, the R-A perspective on pricing brings both price and pricing in relation with the creation of customer value, because (1) it relates price to market position which is determined by the value created by the firm relative to its competitors and by the relative costs that the creation of value brings about, and (2) it relates pricing to the creation of customer value, in that the pricing competence is constituted of organizational processes that are directly related to processes through which the organization creates value.

3.3 Contributions to R-A Theory and Marketing Strategy

The R-A perspective on pricing brings R-A theory a step further in its development towards a general theory of competition. Integrating pricing in the process of R-A competition requires a modification of the structure of R-A theory as in Figure 6.1. Pricing occurs in the shadow of the process of R-A competition in which firms deploy resources to capture a position of competitive advantage. Despite the evidence found in chapter 4 that pricing can compensate weak market positions for individual products, it is

not hard to imagine that firms coping with a structural position of competitive disadvantage based on a comparative disadvantage in their resources, will in the long run not benefit from a strong pricing competence unless they manage to improve their market position. The deployment of resources for pricing can't replace the deployment of resources to create customer value.

However, positions of competitive advantage will not result in superior financial performance without a pricing competence. Pricing is the competence that enables firms to turn their market positions into financial performance. Long-run price differentials (Hunt and Arnett 2001) will not result from the process of R-A competition, unless the pricing competences are sufficiently developed. Firms with positions of competitive advantage and weak pricing competences are unlikely to take the full reward for their market position. As a consequence, they will have less capital to invest in resources, making it more difficult to sustain their market positions in the long run. On an aggregated level, this suggests that weak pricing competences are likely to diminish productivity and economic growth. The process of R-A competition therefore can't be fully understood without understanding the role of pricing.

This thesis integrates pricing not only in R-A theory; more in general it also integrates it in marketing strategy. The creation of customer value is essential in marketing strategy. The underlying rationale of market orientation-performance relationship is for example that market-oriented firms create more value than other firms do. Chapter 5 shows that this is not the full story. Below the surface of value creation for the customer, value is extracted from the customer. Market-oriented firms create more value and subsequently manage to base a price on customer value information. The role of interfunctional coordination comes down to the connection between the two. In uncertain environments a customer orientation can even be leveraged for value-informed pricing independent from value creation. Pricing is therefore an integrated part of marketing strategy that is perhaps even more difficult to understand than the creation of value. The effects of relative product advantage and value-informed pricing on new product market performance are about equally strong. In other words: creating customer value is only half of the job, charging money for value is the other half.

4. IMPLICATIONS

4.1 Implications for Theory

Our results from chapter 5 have several theoretical implications for market orientation literature that should be mentioned here, in addition to the theoretical contributions discussed previously.

First, our study implies that the underlying rationale of the market orientation-performance is not limited to value creation. Market-oriented organizations perform better, not only because they create more value (Day 1994; Slater 1997), but also because they manage to base a price on customer value information.

Second, our findings imply that the market orientation-performance relationship should be stable across different types of business environments, but whether and how its different components are leveraged may depend on environmental circumstances. Our model on market orientation that includes several paths of value creation and value extraction, is found stable over markets with high and low competitive intensity. To this respect our findings provide further evidence that a market orientation leads to superior performance in any type of environment in the same way. However, our model takes different forms in markets with high and low demand uncertainty. Whether strategic orientations lead to the superior value creation and/or value extraction may depend on the type of environment.

Third, our study implies that a market orientation should not be seen as the average of its components. Our study clearly shows that customer and competitor orientations play different roles in order to finally result in performance. Moreover, these roles may be different across different types of business environments. In particular, the role of interfunctional coordination requires some rethinking. Our study suggests that its role comes down to the connection of value creation and value extraction.

4.2 Implications for Business Practice

Several implications for business practice can be drawn. First, like they take their efforts in creating customer value and/or cost reductions serious, firms should **take pricing serious**. Pricing is the reward for all investments in enhancing market positions by competing more efficient and/or effective. Pricing is a competence. It requires investments in time, effort, and capital to develop. It should not be an incidental or periodical process, but a continuous process. The development of a superior pricing competence starts with the understanding that each effort in creating value or increasing

efficiency affects pricing. Not just “all of marketing” comes to focus in pricing (Corey 1962); rather all of business comes to focus in it.

Second, pricing should be an integrated element of the firm’s strategy in general and marketing strategy in particular. Pricing from a R-A perspective recognizes the importance of Segmenting-Targeting-Positioning which is key to marketing strategy in business practice. Cressman (1999) already questioned why pricing in academic literature is not related to this framework. Firms should first segment the market and chose a target market. Likewise, R-A theory recognizes that firms compete on a market or market segment and not necessarily within their industry. Without a clear understanding of a target market, firms are unable to assess the size of their market and thus to make accurate assessments of their costs position with respect to fixed costs. Next, firms should position themselves. This enables them to understand how they are different from competitors and thus to increase the understanding of their market position and price discretion.

Third, also in the way pricing is organized, close links should be established with processes in which value is created. All relevant business functions should be integrated in these processes. Formal and informal information exchange should be stimulated between those who are responsible for developing products and those who are responsible for making price decisions. In situations of high demand uncertainty it may be less easy to develop a clearly positioned market offering in which value and price are integrated from the start. In this situation, firms should rely on their basic sources of customer information as created by a strong customer orientation. Firms may build more directly on their knowledge about the customer and consult members in the organization who know them best.

Fourth, all types of information may be gathered and distributed in the organization, but not everything should be used in the price decision. Filtering information is crucial and compromises when participants in the pricing process disagree on the importance of different types of information may be a bad thing. Our results don’t only reveal that value-, competition-, and cost-informed pricing are best practices in certain situations, they also reveal that they may be bad practice. Which pricing practices the firm should engage in is explained in the discussion section of chapter 4. Related to this, firms may use the measurement scales of pricing practices as a diagnostic tool to increase their understanding of the information on which the price decision is actually based. In a similar way, measurement instruments of market orientation are proposed as a diagnostic tool for business practice (Van Bruggen and Smidts 1995).

Fifth, explicit decisions should be taken in all decision areas before a price is charged to a customer: price signal, portfolio, planning, policy, price, and deviation. Explicit decisions in the strategic areas are likely to ease the decision making process in more tactical areas. Firms should be aware that price varies in many more ways than just its price level. If the firm should set a price that is not comparable to prices charged by competitors, this doesn't necessarily mean that the price should be higher or lower. One can for example also decide to negotiate prices where competitors use list prices. Explicitly discussing all decision areas in a pricing process may stimulate the search for creative, but appropriate, solutions to pricing problems.

Sixth, firms should continuously monitor market positions to keep track of the price discretion. Prices should always be reconsidered when market positions change or when new insights in the assessment of market positions have developed. Reconsidering prices however doesn't imply that prices should be changed all the time. Rather, it helps to anticipate the moment that a price change or new product launch will be necessary because the price threatens to drop out the price discretion.

Seventh, firms should learn from the process of competition to learn about their market position and make more accurate assessments of the ambiguous boundaries of the price discretion. Running away for ambiguity should be avoided at all times. Rather firms should find ways to deal with this ambiguity in superior ways. A strong market orientation provides a solid basis for this learning process. In the end pricing is rooted in the organizational culture and the strength of the pricing competence will partly depend on the degree to which the organizational culture is focussed on the market.

4.3 Implications for Teaching

Well-developed pricing education provides a basis for the development of pricing competences in firms. Students that are educated to become business managers generally come across pricing in several ways during their studies. They will follow an introductory marketing course in which they become aware of several approaches to pricing and pricing strategies (e.g. Kotler, Armstrong, Saunders, and Wong 1999). They might attend an introductory course in economics including several economic price principles, such as the price mechanism, demand curves, and price elasticity. In accounting courses they will learn many aspects of cost price calculations. Finally, in a wide range of more advanced courses they come across the topic again, like pricing market research in market research classes, advertising prices in marketing communication classes, price perceptions in consumer behavior classes, etc. The results from this thesis have several implications for how business students should be educated in pricing.

First, considering the depth of pricing in organizations, the width of its decision areas, and its general importance to business practice, pricing should be more prominent in business education. Pricing from a R-A perspective provides an integrative approach to virtually all aspects of pricing. This should preferably be scheduled in the initial stages of a curriculum in an independent pricing course, or otherwise as a prominent component of a general introductory business administration course. This will provide students with an integrative basic understanding of pricing on which more advanced courses in marketing, consumer behavior, market research, accounting and economics could build.

Second, a more prominent position of pricing in the curriculums of business administration education requires changes in teaching materials. The process of R-A competition and the decision areas in a pricing competence provide a fundamental basis for pricing education. These concepts could contribute to textbooks in for example business administration, marketing, accounting, and pricing itself. The width and variety of pricing topics makes it difficult to structure in pricing courses and textbooks. For example, Lusch and Jaworski (1988, p. 133) criticize Nagle's (1987) pricing textbook for "unclear chapter titles, the chapter sequencing, and the lack of a concluding chapter." The integration of price and pricing competence in the process of R-A competition and the different decision areas provide an opportunity to clearly structure pricing courses and textbooks.

Third, pricing should be more integrated with and become a component of courses on (marketing) strategy and marketing management. In courses such as (marketing) strategy and marketing management, students generally learn how organizations create value to the customer. These courses would be more complete if students learn that pricing can't be disconnected from the creation of customer value, that the relationship between creating value and performance can't be understood without pricing, and that pricing is a competence that requires resources, organizational learning, and input from several business functions.

Fourth, rather than teaching students that price decisions might be right or wrong, students should be trained to handle the ambiguity in pricing. Dealing with ambiguous information is a major challenge to organizations in their pricing jobs. Many curriculums in business education seem to pay no substantial attention to, or train students in how to deal with ambiguous information in price decisions.

Fifth, to train students in their roles as managers participating in pricing processes, pricing courses could include group assignments in which each member plays a different role related to a business function. Such assignments will prepare them for the

interfunctional process in which important price decisions should be made once they start their careers as business managers and perceive the complexity and interfunctional nature of pricing in practice.

4.4 Implications for Public Policy

The topic of public policy and legislation in pricing is already well documented in marketing literature (e.g. Grewal and Compeau 1999; Nagle and Holden 1995; Tellis 1986). Legislation constrains pricing strategies and actions of firms in the marketplace to favor public welfare (Grewal and Compeau 1999). The focus of this thesis is essentially on pricing as it occurs within the boundaries of the organization and not on pricing strategies as they are visible on the market. It has therefore no direct implications with respect to legislation. Nevertheless, some considerations can be derived from the fact that integrating pricing in the process of R-A competition contributes to a deeper understanding of this process. R-A theory has proven to be a valuable basis for key insights in important public policy issues, such as antitrust legislation (Hunt and Arnett 2001). According to Hunt and Arnett (2001, p. 23) public policy should favor R-A competition “to the extent that the goals of public policy are wealth creation, productivity (i.e. efficiency and effectiveness), and economic growth.” Therefore, public policy should favor strong pricing competences. A pricing competence strengthens the link between market positions and financial performance. If the pricing competence is strong, market positions of competitive advantage will yield superior financial performance. Financial performance may flow to the firm’s owners, employees, and can be reinvested in the firm’s resources. If pricing competences are weak, the degree to which firms are rewarded for their struggle for comparative advantages in resources that yield market positions of competitive advantage will be much smaller.

This suggests that public policy-makers concerned with economic growth should be concerned with the fact that economic growth doesn’t just require investments in resources that create value and costs advantages, but also require investments in resources **that enable a pricing competence**. It is not impossible that economic growth of a country is somehow thwarted if the country lacks resources that enable a pricing competence. This seems in particular reasonable for economies that strongly depend on natural resources and crops, and that have **little influence on the prices they receive in return**. Efforts to enhance the creation of customer value in these countries are more likely to succeed if these efforts are accompanied with efforts to enhance pricing competences.

It also suggests that public policy makers should be careful not to intervene in the process of non-price competition by establishing restrictions for price competition. Marketing literature tends to see price competition as “the core element of a free-market economy”

(Grewal and Compeau 1999, p. 3). From a R-A perspective, price is not the core element. Rather, the core element is non-price competition of which price is the reward. Since both are related, restrictions for price competition may have unintended consequences for the process of non-price competition. For example, if maximum prices are established in a market, the deployment of resources to create superior value will no longer result in larger price discretions. It will disable firms to charge higher relative prices and it thus limits the incentive to create superior value. On the other hand, intervening in the process of competition might be favorable if the goals of public policy are different from economic growth and productivity. Legislation, taxation, and other measures may be effective tools to change the nature of resources sought by firms to create a comparative advantage. For example, certain technologies could be favored over others, like environment friendly sources of energy over conventional sources of energy.

4.5 Implications for Future Research

The empirical studies in this thesis share several limitations that provide opportunities for future research. These are discussed in chapters 3, 4, and 5. In short, it is argued that future research may focus on cross-national or cross-cultural differences in pricing practices; focus on pricing processes other than new product pricing, such as price changing; gather data from multiple respondents to increase internal validity; explicitly include price decisions such as price strategies; and focus on industries that are not examined here like retailing, trading, and agriculture. In addition to these opportunities for future research, this section will focus on the research agenda that emerges from the R-A perspective on pricing, and that is not dealt with in this thesis.

First, there is a need for more qualitative research on the pricing competence. A start with this type of research is made by Dutta, Zbaracki, and Bergen (2001). Descriptive case studies that pay respect to the depth and width of pricing however are still absent in pricing literature. These studies may be guided by the conceptualization of the pricing competence in chapter 2 and they may inductively examine fundamental questions like: How do firms develop pricing competences?, Which resources are deployed by a pricing competence?, How do pricing processes precisely relate to each other and to value-contributing processes?, Which pricing practices can be conceptualized other than value-, competition-, and cost-informed pricing?, etc.

Second, future research may take an organizational learning perspective to pricing. Such a perspective would not be new to marketing literature (e.g. Day 1991; Sinkula 1994; Slater and Narver 1995), but it would tell us more on how pricing competences are developed and contribute to an integration of pricing and marketing strategy literatures. Such studies may examine for example the impact of organizational memory level and

organizational memory dispersion (Moorman and Miner 1997) on the firm's pricing activities, or apply different types of learning processes such as single-loupe and double-loop learning in a pricing process (Slater and Narver 1995) and examine the conditions under which these are most appropriate.

Third, future research may focus on the pricing process in more detail. Interfunctional coordination plays an important role in the connection between value creation and value extraction. Future research may therefore examine the role of different business functions in a pricing process. This type of studies would fit into a stream of research that focuses on the role of the marketing function (e.g. Homburg, Workman and Krohmer 1999; Moorman and Rust 1999; Workman 1993; Workman, Homburg, and Gruner 1998). Related to this type of studies, future research may examine how the participants arrive at a price decision. Literature generally favors a planning approach to organize a pricing process (e.g. Nagle and Holden 1995; Monroe 1990; Oxenfeldt 1973; Rao 1984). Recently, strategic marketing literature however questions the general success of a planning process (Moorman and Miner 1998). Pricing offers an interesting context for future research on improvisation.

Fourth, future research may examine pricing from a network perspective. So far, the studies in this thesis and the fields of future research indicated, focus on pricing activities as they occur within the boundaries of the firm. A perspective on pricing from a perspective of network competition would be interesting since it provides insights in pricing activities in the context of the firm's horizontal and vertical contacts. R-A theory acknowledges the importance of relationships with suppliers, intermediaries, customers and competitors as resources of a relational nature (Hunt and Morgan 1995). This perspective opens a wide array of opportunities for future research in the fields of pricing in marketing channels and network competition, such as strategic alliances. This type of studies would contribute to literature on marketing channels (e.g. Geyskens, Steenkamp, and Kumar 1999; Morgan and Hunt 1994; Siguaw, Simpson, and Baker 1998) or to the **emerging literature in marketing** on embeddedness (e.g. Murry and Heide 1998; Rindfleisch and Moorman 2001).

Fifth, the implications of a R-A perspective on pricing for teaching and public policy deserve further attention. A process in which firms constantly struggle for a comparative advantage in resources that yields market positions of competitive advantage that through pricing competences yield superior performance, is in theory in everybody's interest. In practice, it sometimes isn't. Further developing insights and tools to teach students, managers, and public policy-makers how firms can compete and price successfully, contributes to a better functioning of the process of competition in practice. Furthermore:

including pricing in R-A theory makes R-A theory more complete but not finished. “In short, there is a lot of work to be done—*a lot* of work.” (Hunt 2000a, p. 259).

Appendix 1:

SCALE ITEMS AND RESULTS OF FACTOR ANALYSIS CHAPTER 3

Pricing Practices

To what degree were the following factors included in the price setting process of the new product? In other words: to what extent did you take into account the following elements while determining the price of the new product?

Value-Informed Pricing (Alpha = .81) (Eigen value = 3.05)	Factor loading
The advantages of the product compared to competitors' products	.83
The customer's perceived value of the product	.63
The advantages the new product offers to the customer	.72
The balance between advantages of the product and price	.64
The advantages of the product compared to substitutes	.77
Competition-Informed Pricing (Alpha = .91) (Eigen value = 6.52)	Factor loading
The price of competitors' products	.78
The competitor's current price strategy	.90
The estimation of competitor's strength to react	.81
The market structure (number and strength of competitors)	.87
The degree of competition on the market	.79
The competitive advantages of competitors on the market	.76
Cost-Informed Pricing (Alpha = .75) (Eigen value = 2.41)	Factor loading
The variable costs of the product	.82
The price necessary for break-even	.66
The investments in the new product	.75
The share of fixed costs in the cost price	.75
Relative Product Advantage (Alpha = .74) (Eigen value = 1.61)	Factor loading
Please indicate to what degree the following statements are typical for the new product:	
The product offered higher quality than competing products (Atuahene-Gima 1995)	.83
The product solved problems customers have with competing products (Atuahene-Gima 1995)	.64
The product was very innovative and substituted an inferior alternative (Atuahene-Gima 1995)	.78

Competitive Intensity (Alpha = .73) (Eigen value = 1.49)	Factor loading
Please indicate to what degree the following statements are typical for the market in which the new product is launched:	
Intense price competition (Atuahene-Gima 1995)	.88
Strong competitor sales, promotion and distribution systems (Atuahene-Gima 1995)	.63
Strong and good quality competing products or services (Atuahene-Gima 1995)	.55

Pricing Success (Alpha = .89)	Factor loading
(Eigen value = 5.16)	
To what extent were the following <u>price objectives</u> effectively achieved with the new product:	
Achieving a certain market share	.68
Maximizing market share	.74
Maximizing profits	.73
Achieving a certain pay back period	.77
Achieving a predetermined ROI	.82
Realize a certain growth in profits	.83
Maximize the profitability of the product over the entire life cycle	.69

Results of factor analysis are reported after a varimax rotation.

Appendix 2:

SCALE ITEMS, SOURCES, RELIABILITIES, AND STANDARDIZED PATH COEFFICIENTS OF MEASUREMENT INSTRUMENTS IN CHAPTERS 4 AND 5

This appendix provides information on the measurement scales used in chapters 4 and 5. Specifically, it presents the items of each scale, sources of original scale items, scale reliability measured by Cronbach’s Alpha, and results of the confirmatory factor models. Since every scale is compared in two-factor models with every other scale included in these chapters, a total of 78 confirmatory factor models are tested. For reasons of space, the results of only one model are presented here for each scale: model fit measured by the Comparative Fit Index (CFI) (Bentler 1990; Byrne 1994), as well as standardized path coefficients and t-values of each item. However, factor loadings of all items in every model are significant, and CFIs of all models are above the threshold of .90, indicating a good fit (Bentler 1990) In the estimation of these models, every first item for every construct is fixed (Byrne 1994). Therefore no z-values are available for these items. In none of the models covariances were allowed between errors of items within scales or between different scales.

Pricing Practices

Items of value-informed, competition-informed and cost-informed pricing are presented in random order in the questionnaire.

To what degree were the following factors included in the price setting process of the new product/service? In other words: to what extent did you take into account the following elements while determining the price of the new product/service?

	Standardized path coefficient	z-value
Value-Informed Pricing (Alpha = .78)		
1. The advantages the new product/service offers to the customer	.726	N/A
2. The balance between advantages of the product/service and the possible price (price-quality comparison)	.634	6.58
3. The advantages the product/service offers as compared to competitors' products/services	.846	6.73
• All items adapted from Chapter 3		
• Two-factor model fit with competition-informed pricing scale: CFI = .94		

	Standardized path coefficient	z-value
Competition-Informed Pricing (Alpha = .79)		
1. The price of competitors' products/services	.807	N/A
2. The degree of competition on the market	.729	7.70
3. The competitor's current price strategy	.681	7.33
4. The market structure (number and strength of competitors)	.577	6.29
<ul style="list-style-type: none"> • First item adapted from Chapter 3, others directly derived from Chapter 3. • Two-factor model fit with value-informed pricing scale: CFI = .94 		

	Standardized path coefficient	z-value
Cost-Informed Pricing (Alpha = .71)		
1. The share of fixed costs in the cost price	.773	N/A
2. The cost price of the product/service	.714	3.50
<ul style="list-style-type: none"> • First item derived from Chapter 3, second item is new. • Two-factor model fit with value-informed pricing scale: CFI = .99 		

New Product Characteristics and Performance

Relative Product Advantage

How do you estimate the relative advantages of this product/service as compared to competitors' products/services, for...

	Standardized path coefficient	z-value
(Alpha = .77)		
1. Reliability of the product/service	.800	N/A
2. Expressing trustworthiness and expertise	.581	6.21
3. Product/service quality	.717	7.38
4. Overall advantage of the product/service	.647	6.85
<ul style="list-style-type: none"> • First two items are new, others adapted from Gatignon and Xuereb (1997) • Two-factor model fit with value-informed pricing scale: CFI = .97 		

Relative Product Costs

How do you estimate the relative costs of this product/service as compared to competitors' products/services, for...

	Standardized path coefficient	z-value
(Alpha = .68)		
1. Marketing costs	.498	N/A
2. Manufacturing/operations costs	.555	4.61
3. R&D-/costs of development	.880	3.98

- Item 1 is directly derived, others are adapted from Gatignon and Xuereb (1997).
- Two-factor model fit with new product financial performance: CFI = 1.00

New Product Market Performance

Rate the extent to which the product/service has achieved the following outcomes (compared to their predetermined or expected objectives) during the first 12 months after the launch of the product/service...

(Alpha = .83)	Standardized path coefficient	z-value
1. The degree to which the product provides in a customer want or need as compared to the objective or expectation	.580	N/A
2. Sales at current customers as compared to the objective or expectation	.730	6.49
3. Sales at new customers as compared to the objective or expectation	.784	6.77
4. Market share as compared to the objective or expectation	.768	6.69
5. Degree to which the product offers a competitive advantage as compared to the objective or expectation	.684	6.23

- Items adapted from Homburg and Pflesser (2000).
- Two-factor model fit with new product financial performance scale: CFI = .99

New Product Financial Performance

Rate the extent to which the product/service has achieved the following outcomes (compared to their predetermined or expected objectives) during the first 12 months after the launch of the product/service...

(Alpha = .90)	Standardized path coefficient	z-value
1. The profit margin as compared to the objective or expectation	.793	N/A
2. Return on investment as compared to the objective or expectation	.939	12.86
3. Return on assets (profitability) as compared to the objective or expectation	.887	12.23

- All items adapted from Moorman and Miner (1997).
- Two-factor model fit with new product market performance scale: CFI = .99

Business Environment

Demand Uncertainty

Rate the extent to which you agree or disagree with the following statements about the market on which the product/service is launched...

(Alpha = .73)

	Standardized path coefficient	z-value
1. The demand is fairly easy to forecast in this market.	.564	N/A
2. The sales market is difficult to predict	.740	5.41
3. The demand and preferences of customers are almost unforeseeable	.696	5.35
4. The demand is influenced by so many factors that no one really knows which way it is going	.571	4.83

- First item is reversed.
- First item derived from Gatignon and Xuereb (1997), other items are new.
- Two-factor model fit with market dynamism scale: CFI = .98

Competitive Intensity

Rate the extent to which the following changes occur in the market on which you launched the product/service...

(Alpha = .82)

	Standardized path coefficient	z-value
1. Changes in products offered by your competitors	.674	N/A
2. Changes in sales strategies by your competitors	.936	7.69
3. Changes in sales promotion/advertising strategies of your competitors	.741	7.90

- All items derived from Homburg and Pflesser (2000).
- Two-factor model fit with demand uncertainty scale: CFI = .98

Strategic Orientation

Technological Orientation

Rate the extent to which you agree or disagree with the following statements on how your organization generally deals with technology.

(Alpha = .85)

	Standardized path coefficient	z-value
1. We use the latest technologies in new product/service development	.767	N/A
2. We strive for technological breakthroughs	.887	9.79
3. We systematically scan for new technologies inside and outside the industry	.795	9.43

- Item 2 is derived from Gatignon and Xuereb (1997), other items are adapted from Han, Kim, and Kim (2001).
- Two-factor model fit with customer orientation scale: CFI = .99

Customer Orientation

Rate the extent to which you agree or disagree with the following statements on how your organization generally deals with customers.

(Alpha = .78)	Standardized	
	path coefficient	z-value
1. We determine our objectives on the basis of customer satisfaction	.589	N/A
2. After-sales service occupies an important position in our organization	.752	6.39
3. The creation of customer value may be seen as a daily activity	.827	6.56
4. We are strongly committed to the customer	.587	5.46

- All items are adapted from Narver and Slater (1990).
- Two-factor model fit with competitor orientation scale: CFI = .96

Competitor Orientation

Rate the extent to which you agree or disagree with the following statements on how your organization generally deals with competitors.

(Alpha = .79)	Standardized	
	path coefficient	z-value
1. Salespeople continuously share competitor information	.593	N/A
2. We respond rapidly to competition	.770	6.45
3. Our top managers discuss competitors' strategies	.702	6.15
4. We target potential competitive advantages	.759	6.41

- All items are adapted from Narver and Slater (1990).
- Two-factor model fit with customer orientation scale: CFI = .96

Interfunctional Coordination

Rate the extent to which you agree or disagree with the following statements on how your organization generally deals with collaboration between business functions.

(Alpha = .81)	Standardized	
	path coefficient	z-value
1. Business functions continuously share information	.749	N/A
2. Business functions tightly fit corporate strategy	.769	8.15
3. All business functions contribute customer value	.676	7.32
4. Resources are shared with other departments	.684	7.41

- All items are adapted from Narver and Slater (1990).
- Two-factor model fit with customer orientation scale: CFI = .95

Appendix 3:

TEST RESULTS DISCRIMINANT VALIDITY OF CONSTRUCTS USED IN CHAPTERS 4 AND 5

Chi-square differences (CFI differences) between free and constrained models¹

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Relative product advantage	-									
2. Relative product costs	94.69 ² (-.43)	-								
3. New Product Market Performance	72.84 (-.16)	115.61 (-.36)	-							
4. New Product Financial Performance	63.38 (-.14)	115.83 (-.31)	57.68 (-.09)	-						
5. Value-informed pricing	44.59 (-.15)	57.97 (-.28)	59.17 (-.15)	46.29 (.10)	-					
6. Competition-informed pricing	60.21 (-.18)	64.31 (-.26)	110.75 (-.24)	78.55 (-.17)	45.68 (-.15)	-				
7. Cost-informed pricing	60.35 (-.28)	61.73 (-.48)	90.62 (-.30)	78.94 (-.22)	94.66 (-.50)	50.83 (-.21)	-			
8. Demand uncertainty	83.77 (-.30)	86.25 (-.44)	124.58 (-.32)	106.64 (-.25)	69.45 (-.28)	72.89 (-.24)	69.30 (-.41)	-		
9. Market dynamism	66.59 (-.20)	81.72 (-.34)	93.69 (-.21)	64.61 (-.14)	49.31 (-.15)	46.41 (-.14)	49.15 (-.22)	76.49 (-.26)	-	
10. Technological orientation	48.09 (-.23)	66.36 (-.23)	76.18 (-.16)	65.71 (-.12)	38.81 (-.11)	49.13 (-.13)	54.35 (-.21)	62.43 (-.19)	54.62 (-.15)	-
11. Competitor orientation	39.85 (-.12)	54.09 (-.21)	78.46 (-.18)	61.31 (-.13)	43.83 (-.14)	37.19 (-.11)	56.99 (-.25)	76.04 (-.26)	52.48 (-.14)	38.10 (-.09)
12. Customer orientation	66.64 (-.20)	97.22 (-.42)	102.59 (-.24)	82.39 (-.18)	57.50 (-.20)	71.84 (-.22)	79.81 (-.37)	89.05 (-.32)	64.47 (-.19)	59.95 (-.16)
13. Interfunctional coordination	57.02 (-.26)	67.56 (-.26)	106.23 (-.24)	93.56 (-.29)	66.45 (-.21)	65.78 (-.18)	50.70 (-.21)	64.78 (-.21)	64.78 (-.21)	60.45 (-.15)
14. Relative price	107.7 (-.69)	65.53 (-.82)	121.23 (-.49)	111.01 (-.38)	63.53 (-.52)	90.85 (-.53)	75.79 (-.24)	86.38 (-.72)	95.57 (-.30)	88.96 (-.45)
15. Relative price discretion	16.61 (-.07)	276.38 (-.96)	77.71 (-.31)	49.27 (-.17)	52.69 (-.43)	60.55 (-.35)	60.34 (-.18)	77.07 (-.64)	63.71 (-.38)	59.40 (-.29)
16. Relative profit margin	86.52 (-.55)	197.37 (-.74)	110.84 (-.44)	78.60 (-.27)	65.86 (-.54)	85.57 (-.49)	73.16 (-.26)	79.97 (-.66)	87.08 (-.52)	92.59 (-.46)

¹ The critical value ($\Delta X^2_{(1)} > 3.84$) is exceeded in all tests.

² Read as: chi-square of the constrained model including relative product advantage and relative product costs is 94.69 higher than of the free model; CFI of the constrained model is .43 lower than of the free model.

(continued)

	(11)	(12)	(13)	(14)	(15)
12. Customer orientation	50.39 (-.13)	-			
13. Interfunctional Coordination	47.83 (-.13)	46.69 (-.12)	-		
14. Relative price	75.37 (-.42)	102.95 (-.63)	94.34 (-.87)	-	
15. Relative price discretion	77.32 (-.44)	65.23 (-.38)	59.38 (-.54)	124.71 (-.04)	-
16. Relative profit margin	82.48 (-.48)	92.62 (-.57)	96.71 (-.87)	28.23 (-.12)	29.24 (-.07)

Summary in Dutch:

Samenvatting

1. Inleiding: Prijsbepaling en resource-advantage theorie

Sinds de jaren 80 vinden er structurele veranderingen plaats in de bedrijfsomgeving die het voor bedrijven in toenemende mate noodzakelijk maakt om waarde te creëren voor de klant. Behalve het creëren van klantwaarde, dient een bedrijf echter ook een prijs te bepalen die het terug vraagt van de klant in ruil voor de geleverde waarde. Dit proefschrift richt zich op de vraag hoe een organisatie op succesvolle wijze een prijs kan bepalen die het in ruil vraagt voor de gecreëerde klantwaarde? Deze vraag is belangrijk omdat managers prijsbepaling doorgaans belangrijk, moeilijk en risicovol vinden. Bovendien ondervinden zij weinig steun aan de wetenschappelijke literatuur over prijsbepaling en zijn tekstboeken over dat onderwerp nauwelijks onderbouwd met onderzoek naar de praktijk van prijsbepaling. In zijn algemeenheid speelt prijs vergeleken met andere onderwerpen een prominente rol in het overheidsbeleid en de samenleving.

Uit het literatuuroverzicht gericht op de literatuur over het creëren van klantwaarde en prijsbepaling blijkt dat het in de literatuur vooral ontbreekt aan een perspectief op prijsbepaling dat (1) de complexiteit van prijsbepaling in de praktijk in acht neemt, (2) gerelateerd is aan de andere invalshoeken om prijs en prijsbepaling te bestuderen, (3) een ingang biedt om normatieve stellingen te ontwikkelen over het succes van pricing practices en (4) prijsbepaling relateert aan het creëren van klantwaarde. Resource-advantage (R-A) theorie biedt de mogelijkheid om een dergelijk perspectief op prijsbepaling te ontwikkelen.

R-A theorie is een theorie die concurrentie als een dynamisch proces beschouwd waarin bedrijven streven naar superieure financiële prestaties (zie figuur 1.2). Deze financiële prestaties zijn een gevolg van de marktpositie van een bedrijf die op zijn beurt een gevolg is van de bestaansmiddelen (resources) van het bedrijf. Deze bestaansmiddelen zijn zeer breed: niet alleen het personeel, kapitaal en fysieke

middelen als gebouwen, maar ook de informatie die het bedrijf tot haar beschikking heeft, de relaties met leveranciers en afnemers, de vaardigheden, competenties en de bedrijfscultuur behoren bijvoorbeeld tot de bestaansmiddelen. Het is voor bedrijven de truc om een voordeel vergeleken met concurrenten in deze bestaansmiddelen te vergaren. Dat leidt immers tot een positie van concurrentievoordeel. Een positie van concurrentievoordeel kan bemachtigd worden door meer klantwaarde te creëren dan concurrenten tegen gelijke of lagere kosten, of gelijke waarde te creëren tegen lagere kosten (zie figuur 1.3). Wanneer het bedrijf minder waarde creëert tegen lagere kosten, dan dient het de prijs ook beduidend lager te stellen wil het concurrentievoordeel behalen. Wanneer het superieure waarde levert tegen hogere kosten dan dient het de prijs hoger te stellen dan de concurrentie om concurrentievoordeel te behalen. Dit is tegelijkertijd ook alles wat R-A theorie in zijn huidige vorm meldt over prijs. Het is een theorie waarin met name innovaties centraal staan. Door innovaties te lanceren kan een bedrijf de marktpositie verbeteren. Prijs en prijsbepaling spelen een kleine rol. Deze wordt in hoofdstuk 2 verder uitgewerkt.

2. Het ontrafelen van de prijsbepalingscompetentie

Hoofdstuk 2 geeft prijs en prijsbepaling een plaats in het proces van R-A concurrentie. De financiële prestaties van het bedrijf zijn niet alleen afhankelijk van de marktpositie maar ook van de prijs die het bedrijf bepaalt (zie figuur 2.1). Prijsbepaling is een competentie. Het wendt de bestaansmiddelen van een bedrijf aan om waarde te onttrekken aan de klant op een wijze die de onderneming helpt haar doelen te bereiken. Bedrijven kunnen daarom ook prijsbeslissingen nemen die beter of slechter zijn dan die van concurrenten. In het proces van concurrentie leert het bedrijf hoe het prijsbeslissingen moet nemen en leert het de marktpositie beter kennen en begrijpen. Daardoor leert het ook welke prijzen het mag vragen in ruil voor de geleverde klantwaarde. De mogelijke prijzen worden begrensd aan de onderkant door de kosten en aan de bovenkant door de kosten: de zogenaamde “price discretion” (zie ook figuur 2.2). Deze bovengrens en ondergrens zijn moeilijk precies in te schatten. Klantwaarde is de perceptie van de klant van de voordelen die het verkrijgt bij de aankoop. Kosten worden mede bepaald door de afzet en marktgrootheid en zijn dus meestal ook niet precies te bepalen. Een sterke prijsbepalingscompetentie stelt **bedrijven in staat om een betere inschatting te maken van de price discretion en op grond daarvan betere beslissingen te nemen.** De price discretion verklaart tevens waarom prijzen in werkelijkheid niet veranderen op de wijze die (neo-)klassieke economische theorie voorspelt: prijzen hoeven immers niet bij iedere schommeling in vraag en aanbod te veranderen, maar hoeven pas te veranderen wanneer de marktpositie is veranderd in het dynamische concurrentieproces waardoor de prijs niet langer binnen de price discretion valt.

Omdat de prijs begrensd wordt door de klantwaarde en de kosten, is prijsbepaling gerelateerd aan alle bedrijfsprocessen die bijdragen aan het creëren van klantwaarde en kosten met zich mee brengen. Dit zijn strategie ontwikkeling, product- en/of dienstontwikkeling, dienstverlening, levering, en inkoop. De processen van de prijsbepalingscompetentie zijn dus terug te vinden in alle geledingen van het bedrijf. Prijsbepaling gebeurt niet alleen wanneer het bedrijf zelf de marktpositie verbetert met nieuwe producten, maar ook wanneer de marktpositie verandert door externe gebeurtenissen zoals acties van concurrenten, prijsstijgingen bij toeleveranciers of veranderende wetgeving. Dit leidt tot een totaal van tien verschillende processen van prijsbepaling en prijsverandering die samen de prijscompetentie vormen (zie tabel 2.5). In deze processen werken de verschillende bedrijfsfuncties als marketing, kostencontrolling, productie en Research & Development samen. Bestaansmiddelen als marktinformatie en vaardigheden voor kostenberekeningen worden aangewend om een zo goed mogelijke prijsbeslissing te nemen.

Een prijsbeslissing is meer dan alleen het bepalen van het bedrag dat de klant betaalt. Vanuit een R-A perspectief bestaat prijs uit het bedrag in een bepaalde munteenheid dat de klant betaalt voor de ontvangen klantwaarde en de betalingsvoorwaarden die daar aan zijn verbonden. Voordat de klant tot betaling over gaat dienen er echter een aantal andere beslissingen genomen te worden door het bedrijf. Drie strategische beslissingen brengen het bedrijf van de initiële price discretion naar de uiteindelijke price discretion, te weten: prijssignaal (hoe hoog of laag dient de prijs te zijn gegeven het feit dat klant een bedrijf/merk/product als hoge kwaliteit of als koopje dient te percipiëren?), prijsportfolio (hoe worden de waarde en kosten over verschillende opties verdeeld door bijvoorbeeld verschillende producten samen voor één prijs te verkopen, of door bijvoorbeeld lage prijzen te vragen voor een mobiele telefoon en hoge prijzen voor abonnement en gesprekskosten), en prijsplanning (hoe zullen de waarde en de kosten in de toekomst gaan veranderen?). Op basis van deze drie beslissingen kan het bedrijf een inschatting maken van de boven- en ondergrens van een prijs voor een individueel product. Vervolgens zijn er nog drie beslissingen nodig om tot een definitieve prijsbeslissing te komen (zie figuur 2.3): prijspolicy (hoe gaan we de prijs vaststellen, via onderhandelingen, een vaststaand prijskaartje, of mogelijk zelfs een percentage van de omzetsijging en besparingen die de klant bewerkstelligt met de aanschaf van het product?), prijs (het bedrag en de betalingsvoorwaarden), en mogelijk een afwijking van de standaardprijs (bijvoorbeeld korting, extra opslag of scherpere betalingsvoorwaarden).

Deze beschrijving van de prijsbepalingscompetentie neemt de complexiteit van prijsbepaling in de praktijk in acht, omdat een competentie per definitie complex is, omdat het inschatten van de price discretion een ingewikkelde taak is, omdat marktposities en daardoor ook price discretions niet stabiel zijn en omdat een prijsbepalingscompetentie uit tien processen en zes beslissingsgebieden bestaat. De

beschrijving is via de zes beslissingsgebieden gerelateerd aan de andere invalshoeken om prijs en prijsbepaling te bestuderen (zie tabel 2.7). Hierdoor integreert het R-A perspectief op prijsbepaling de bestaande kennis over prijsbepaling in plaats van dat het deze vervangt. Het relateert het creëren van klantwaarde aan prijsbepaling via de bovengrens van de price discretion en omdat processen van prijsbepaling gerelateerd zijn aan processen die bijdragen aan de creatie van klantwaarde. Tot slot biedt dit perspectief de mogelijkheid om normatieve stellingen te ontwikkelen over het succes van pricing practices. Dit gebeurt in de volgende hoofdstukken.

3. Succesvolle pricing practices in een klantwaarde context

Hoofdstuk 3, 4 en 5 richten zich op de prijsbepaling voor nieuwe producten. In hoofdstuk 3 wordt het succes van drie prijsbepalings-“practices” onderzocht. Prijsbepalingspractices vinden plaats in de context van een organisatorisch proces waarin medewerkers van verschillende bedrijfsfuncties informatie uitwisselen en gebruiken om een prijs voor een nieuw product te bepalen. Er worden drie practices onderscheiden, die betrekking hebben op het gebruik van respectievelijk informatie over klantwaarde, concurrentie en kosten. Deze drie practices zijn gebaseerd op de price discretion. Door klantwaarde informatie kan de onderneming zich een beter beeld vormen van de bovengrens van de price discretion, terwijl kosteninformatie een beeld geeft van de ondergrens. Concurrentie-informatie verwijst naar de concurrenten en hun prijsstellingen waar de onderneming zich mee vergelijkt om een inschatting te kunnen maken van haar marktpositie. Vergelijkbare practices zijn al eerder onderzocht, maar nog nooit eerder is bekeken in welke mate zij tot succesvolle prijsbeslissingen leiden.

Het succes van deze practices hangt af van de klantwaarde context: de mate waarin een onderneming voordelen heeft gecreëerd voor de klant in het nieuwe product (productvoordeel) en de mate waarin deze voordelen teniet gedaan lijken te worden als gevolg van de concurrentie intensiteit. In het hoofdstuk worden verwachtingen geformuleerd met betrekking tot de klantwaarde context waarin het succes van pricing practices groter of kleiner zal worden. Deze verwachtingen worden getoetst aan de hand van een steekproef van 76 prijsbeslissingen voor nieuwe industriële kapitaalgoederen (zoals machines) van Belgische ondernemingen. Er worden nieuwe meetinstrumenten ontwikkeld om prijsbepalingspractices te meten. De meetinstrumenten die in eerder onderzoek zijn gebruikt kunnen tot vertekende resultaten hebben geleid, bijvoorbeeld omdat practices verward werden met prijsstrategieën in de markt, of omdat er geen rekening gehouden werd met het feit dat ondernemers vaak geneigd zijn om hun prijs te verantwoorden op basis van kostenargumenten.

De resultaten tonen aan dat het prijzen op basis van klantwaarde-informatie succesvoller wordt naarmate het product meer voordelen biedt ten opzichte van de concurrentie (succesvol betekent in dit geval de mate waarin prijsdoelstellingen met betrekking tot winst en verkopen bereikt worden). Bij een hoge concurrentie intensiteit zijn deze voordelen echter beperkt houdbaar en wordt dit positieve effect weer tenietgedaan. Concurrentie-informatie is succesvol wanneer het product weinig voordelen biedt vergeleken met concurrenten. In dit geval heeft de onderneming waarschijnlijk een succesvol product van de concurrent als voorbeeld genomen en biedt het nieuwe product dus waarschijnlijk niet of nauwelijks voordelen ten opzichte van de concurrent. De prijs van de concurrent bepaalt in dat geval de bovengrens van de price discretion, waarmee concurrentie-informatie een succesvolle basis is om de prijs van een product op te baseren. Het gebruik van kosteninformatie om een prijs op te baseren wordt succesvoller naarmate de concurrentie intensiteit in de markt toeneemt. In dat geval dreigt een product sneller zijn voordelen ten opzichte van de concurrentie te verliezen en resulteert een beter begrip van de ondergrens van de price discretion in succesvollere prijsbeslissingen. Dit is zowel het geval bij producten die veel voordeel als weinig voordeel bieden. Dit betekent dat het gebruik van kosteninformatie bij een prijsbeslissing dus niet haaks hoeft te staan op het incasseren van een beloning voor het creëren van klantwaarde zoals soms beweerd is in de marketingliteratuur.

4. Kwesties in de prijsbepaling van nieuwe producten vanuit een resource-advantage perspectief

Hoofdstuk 4 onderzoekt 3 kwesties met betrekking tot de prijsbepaling van nieuwe producten en diensten vanuit een R-A perspectief. In de eerste plaats bouwt het voort op hoofdstuk 3 door het succes en de voorwaarden voor succes van de drie prijsbepalingspractices verder te onderzoeken. Daarnaast onderzoekt het twee fundamentele prijsbepalingskwesties vanuit een R-A perspectief: de relatie tussen marktpositie en de relatieve prijs en het relatieve belang van prijsbepaling voor producten in een marktpositie van concurrentievoordeel en producten zonder marktpositie van concurrentievoordeel.

Voor wat betreft het succes van prijsbepalingspractices wordt er een onderscheid gemaakt tussen de prestaties van het product op de markt, zoals verkoop en marktaandeel, en de relatieve marge van het product (marge vergeleken met de concurrentie). Het succes van de practices is ondergeschikt aan de klantwaarde context (productvoordeel en concurrentie intensiteit) voor wat betreft de prestaties op de markt en ondergeschikt aan de marktpositie (productvoordeel en relatieve kosten) voor wat betreft de marge. Op basis van de resultaten uit hoofdstuk 3 worden hypothesen ontwikkeld. Deze worden getoetst op een steekproef van 144 prijsbeslissingen voor nieuwe producten en diensten uit een breed scala van

bedrijfstakken en markten, daarmee draagt dit hoofdstuk sterk bij aan de empirische generaliseerbaarheid. De resultaten geven verschillen aan tussen verschillende typen producten of markten. De meetinstrumenten voor de prijsbepalingspractices worden herzien en geschikt gemaakt voor deze brede steekproef. De resultaten tonen aan dat klantwaarde- en concurrentie-informatie bijdragen aan grotere marges indien het productvoordeel hoog is. Een negatief effect van kosteninformatie dat in deze situatie verwacht was, is slechts indicatief (zie ook figuur 4.5). Concurrentie-informatie draagt bovendien bij aan grotere marges indien zowel productvoordeel als kosten laag zijn. De resultaten met betrekking tot marktprestatie geven aan dat klantwaarde-informatie onder alle omstandigheden een positief effect heeft. Concurrentie-informatie draagt bij aan de marktprestatie als het productvoordeel hoog is en de concurrentie intensiteit laag, of als het productvoordeel laag is en de concurrentie intensiteit hoog. Kosteninformatie draagt bij aan de marktprestatie als zowel productvoordeel en concurrentie intensiteit hoog, dan wel laag zijn (zie ook tabel 4.10). Het blijkt dat de interactie van relatieve marge en marktprestatie bijdraagt aan de financiële prestaties van het product indien het product een positieve price discretion heeft. Bedrijven kunnen producten met een negatieve price discretion doelbewust lanceren omdat ze verwachten dat de marktpositie in de toekomst zal verbeteren of omdat het de productlijn in zijn geheel verbetert. De implicaties van deze resultaten worden uitvoerig besproken in paragraaf 6 van hoofdstuk 4.

Uit de resultaten met betrekking tot het effect van marktpositie op relatieve prijs blijkt dat prijzen hoger zijn vergeleken met concurrenten wanneer ook de kosten hoger zijn. Wanneer het product meer waarde biedt dan de concurrentie, zijn de prijzen echter alleen hoger wanneer de prijs gebaseerd is op klantwaarde en/of concurrentie-informatie. Dit duidt er op dat veel bedrijven geen hogere prijs vragen dan de concurrent ook al is het product beter, omdat ze niet in staat zijn de prijs in voldoende mate op klantwaarde en concurrentie-informatie te baseren.

De derde kwestie die in dit hoofdstuk aan bod komt, is het relatieve belang van prijsbepaling voor producten met en zonder een positie van concurrentievoordeel. De resultaten wijzen uit dat prijsbepalingspractices meer variantie verklaren van marktprestatie en relatieve marges wanneer het product geen positie van concurrentievoordeel heeft. Bedrijven die er dus niet in slagen een positie van concurrentievoordeel te behalen kunnen dit gedeeltelijk compenseren door een betere prijs te bepalen.

5. Het aanwenden van klant- en concurrentie-oriëntaties voor het creëren en onttrekken van waarde

Hoofdstuk 5 integreert het gebruik van klantwaarde informatie in de prijsbeslissing (klantwaarde pricing) in de relatie tussen marktgerichtheid en prestatie. Marktgerichtheid (de mate waarin de cultuur van de onderneming is gericht op de klant en op de concurrentie) kan gezien worden als een competentie. Deze competentie draagt bij aan het creëren van klantwaarde en daardoor uiteindelijk aan de prestatie van de onderneming. Het bewijs voor de relatie tussen marktgerichtheid en prestatie is tot op heden echter niet eenduidig. In dit hoofdstuk wordt op basis van eerder onderzoek een model ontwikkeld waarin klant- en concurrentie-oriëntaties bijdragen aan het creëren van waarde voor de klant en het onttrekken van waarde aan de klant (prijsbepaling). In de routes waarin klantwaarde gecreëerd wordt, worden klant- en concurrentie-oriëntaties aangewend om productvoordeel te creëren, deels via de technologische oriëntatie van de onderneming. Productvoordeel draagt vervolgens bij aan de prestaties van het product op de markt en uiteindelijk de aan financiële prestaties (zie ook figuur 5.1). Daarnaast zijn routes opgenomen waarin waarde onttrokken wordt aan de klant via klantwaarde pricing. Het model wordt getest op basis van dezelfde data als in hoofdstuk 4.

De resultaten wijzen uit dat zowel klant- als concurrentiegerichtheid bijdragen aan het creëren van klantwaarde via technologische oriëntatie en dat klantgerichtheid bovendien een direct effect heeft op productvoordeel, dat leidt tot prestaties van het product in de markt en uiteindelijk financiële prestaties (zie figuur 5.3). Concurrentgerichtheid heeft daarnaast een direct positief effect op marktprestatie dat duidt op een betere positionering van het product ten opzichte van concurrenten en het succesvol kopiëren van producten van de concurrent. Klantwaarde pricing is geworteld in deze routes van waarde creatie. Dit verband tussen productvoordeel en klantwaarde pricing is het enige verband dat wordt gemodereerd door interfunctionele coördinatie. Dit duidt er op dat pricing inderdaad een interfunctioneel proces is dat direct is verbonden met processen waarin waarde gecreëerd wordt. De directe effecten van klant- en concurrentie-oriëntatie op klantwaarde pricing zijn slechts indicatief. Het effect van klantwaarde pricing op de financiële prestaties verloopt via de marktprestaties. De effecten van productvoordeel en klantwaarde pricing op marktprestaties zijn ongeveer even sterk, wat er op duidt dat het creëren van klantwaarde slechts de helft van het werk is om een succesvol product op de markt te zetten. Prijsbepaling is de andere helft.

Het model vertoont geen verschillen tussen markten met veel en weinig concurrentie. Er zijn echter wel een aantal verschillen tussen markten met een hoge en lage onzekerheid. Het meest opvallende verschil is dat in onzekere markten klantwaarde pricing niet langer geworteld is in waarde creatie, maar direct in de klantgerichtheid

van de onderneming. De klantgerichtheid blijkt een belangrijke competentie om de onzekerheid van de markt te ondervangen in zowel het creëren van waarde voor de klant als het onttrekken van waarde aan de klant.

6. “Money for value”: Conclusies en implicaties

Het creëren van klantwaarde en het vervolgens baseren van een prijs op klantwaarde, leidt tot financiële prestaties. Er is echter geen “simpele” manier gevonden om via prijsbepaling direct de financiële prestaties te verhogen. Prestaties op de markt zijn een voorwaarde om uiteindelijk superieure financiële prestaties te behalen. Evenmin is het creëren van klantwaarde alleen voldoende om te presteren. Het creëren van klantwaarde is slechts de helft van het werk, prijsbepaling is de andere helft. Producten die geen positie van concurrentievoordeel hebben kunnen zelfs door middel van een goede prijsstelling de gebrekkige marktpositie gedeeltelijk compenseren.

Prijzen worden begrensd door de kosten en klantwaarde in de price discretion. Dit geeft tevens een verklaring waarom prijzen niet veranderen op de wijze die (neo-)klassieke economische theorie voorspelt. Het creëren van superieure klantwaarde leidt alleen tot hogere prijzen als de onderneming voldoende geïnformeerd is over klantwaarde en concurrentie. Prijzen van nieuwe producten zijn daardoor vaak lager dan nodig. Het begrijpen van de price discretion is van groot belang om een goede prijsbeslissing te kunnen nemen. Het succes van prijsbepalingspractices is ondergeschikt aan de marktpositie van een product. Bedrijven met een sterke prijsbepalingscompetentie hebben daarom niet alleen de juiste informatie tot hun beschikking, ze weten ook op welke informatie de prijs gebaseerd dient te worden. Een prijsbeslissing omvat veel meer dan alleen het vaststellen van het prijsniveau.

Prijsbepaling is even diep geworteld in de organisatie als het creëren van klantwaarde. Prijsbepaling gebeurt “in de schaduw” van processen die bijdragen aan de creatie van klantwaarde. Zij zijn **direct gerelateerd aan elkaar en worden versterkt door een vrije informatie-uitwisseling tussen bedrijfsfuncties**. In markten met een hoge onzekerheid is prijsbepaling op basis van klantwaarde **echter niet langer geworteld in het creëren van klantwaarde**. Een sterke klantgerichtheid kan de onzekerheid van de markt ondervangen in zowel het creëren als het onttrekken van klantwaarde.

R-A theorie biedt een bijdrage aan de prijsbepalingsliteratuur, omdat op basis van deze theorie een perspectief ontwikkeld is dat (1) de complexiteit van prijsbepaling in de praktijk in acht neemt, (2) gerelateerd is aan de andere invalshoeken om prijs en prijsbepaling te bestuderen, (3) een ingang biedt om normatieve stellingen te ontwikkelen over het succes van pricing practices en (4) prijsbepaling relateert aan het creëren van klantwaarde. Bovendien blijkt het R-A perspectief op prijsstelling voor

wat betreft prijsbepalingspractices generaliseerbaar over verschillende typen producten en markten.

Een integratie van prijs en prijsstelling maakt R-A theorie ook completer. Posities van concurrentievoordeel zullen niet resulteren in superieure financiële prestaties, wanneer de onderneming een gebrekkige prijsbepalingscompetentie heeft. Evenmin zal het proces van R-A concurrentie dan leiden tot grote prijsverschillen tussen ondernemingen. Dit heeft tot gevolg dat ondernemingen minder kapitaal kunnen investeren in de bestaansmiddelen waardoor het bedrijf meer moeite zal hebben de concurrentiepositie te handhaven.

Deze conclusies betekenen dat bedrijven (1) prijsbepaling net zo serieus dienen te nemen als het creëren van klantwaarde en/of terugbrengen van de kosten; (2) dat prijsbepaling een geïntegreerd onderdeel van de (marketing-) strategie dient te zijn; (3) dat in de wijze waarop prijsbepaling georganiseerd is, directe verbanden gelegd dienen te worden met de processen waarin waarde gecreëerd wordt; (4) dat ondernemingen er naar moeten streven om alle typen informatie tot hun beschikking te hebben bij een prijsbeslissing, maar dat zij deze informatie goed moeten leren filteren waardoor de prijs op de juiste informatie gebaseerd wordt; (5) dat zij expliciete beslissingen dienen te nemen in alle zes de beslissingsgebieden die onderscheiden kunnen worden in een prijsbepalingscompetentie; (6) dat zij voortdurend veranderingen in hun marktpositie monitoren waardoor zij kunnen anticiperen op mogelijke prijsveranderingen; (7) dat zij in het proces van concurrentie de mogelijkheid aan dienen te grijpen om te leren van eerdere beslissingen en hun begrip van de marktpositie en dus de price discretion te vergroten.

Voor het managementonderwijs betekenen deze conclusies dat (1) prijsbepaling een meer prominente plaats dient te krijgen in opleidingen; (2) dat het perspectief op prijsbepaling vanuit R-A theorie een geïntegreerde basis biedt om tekstboeken en cursussen in prijsbepaling of deelaspecten daarvan te structureren; (3) dat prijsbepaling een geïntegreerd onderdeel dient te worden van cursussen waarin studenten leren hoe organisaties klantwaarde creëren, zoals (marketing-)strategie en marketing management; (4) dat studenten getraind moeten worden om met onduidelijke en onvolledige informatie om te gaan in prijsbeslissingen; en (5) dat zij in groepsopdrachten voorbereid kunnen worden op het nemen van prijsbeslissingen in interfunctionele processen.

Voor beleidsmakers betekenen deze conclusies dat (1) beleidsmakers die zich bezig houden met economische groei en productiviteit, zich niet alleen moeten richten op maatregelen die waarde creatie en/of efficiency bevorderen, maar ook op een verbetering van de prijsbepalingscompetenties; en (2) dat beleidsmakers die zich bezig houden met wet- en regelgeving rond prijzen, er rekening mee dienen te houden

dat prijsconsurrentie en niet-prijsconcurrentie direct met elkaar verbonden zijn, waardoor maatregelen bedoeld om prijsconcurrentie te bevorderen of in te perken ook onbedoelde gevolgen kunnen hebben voor niet-prijsconcurrentie.

Toekomstig onderzoek kan gericht worden op kwalitatieve verkenningen van de prijsbepalingscompetentie, het bestuderen van prijsbepaling vanuit een perspectief van de lerende organisatie, organisatorische processen en netwerkconcurrentie. Ook kunnen de implicaties van een R-A perspectief op prijsbepaling voor onderwijs en beleid nader bestudeerd worden. Kortom: er is nog veel werk te doen.

Literature

- Aaker, David A. (1988), *Strategic Market Management*. New York: John Wiley & Sons.
- Abratt, Russell and Leyland F. Pitt (1985), "Pricing Practices in Two Industries," *Industrial Marketing Management*, 14, 301-6.
- Achrol, Ravi S. (1991), "Evolution of the Marketing Organization: New Forms for Turbulent Environments," *Journal of Marketing*, 55 (October), 77-93.
- Adams, Marjorie E., George S. Day, and Deborah Dougherty (1998), "Enhancing New Product Development Performance: An Organizational Learning Perspective," *Journal of Product Innovation Management*, 15, 403-22.
- Adformatie* (2001, in Dutch), "Firm Should Focus More on Customer," (September 27), 6.
- Aguilar, Francis Joseph (1967), *Scanning the Business Environment*. New York: MacMillan.
- Anderson, James C. (1987), "An Approach for Confirmatory Measurement and Structural Equation Modeling of Organizational Properties," *Management Science*, 33 (April), 525-41.
- Anderson, James C. and James A. Narus (1998), "Business Marketing: Understand What Customers Value," *Harvard Business Review*, 76 (November-December), 53-65.
- Anderson, James C. and James A. Narus (1999), *Business Market Management: Understanding, Creating, and Delivering Value*. Upper Saddle River, NJ: Prentice Hall.
- Anderson, James C., James B.L. Thomson, and Finn Wynstra (2000), "Combining Value and Price to Make Purchase Decisions in Business Markets," *International Journal of Research in Marketing*, 17, 307-29.
- Anttila, Mai and Christian Möller (2000), "Pricing Strategies and Practices of High-Technology Companies," in: *Marketing in the New Millennium, Proceedings 29th EMAC Conference, Rotterdam 2000*.
- Armstrong, J. Scott and Terry Overton (1977), "Estimating Nonresponse Bias in Mail Surveys," *Journal of Marketing Research*, 14 (August), 396-402.

- Atuahene-Gima, Kwaku (1995), "An Exploratory Analysis of the Impact of Market Orientation on New Product Performance-A Contingency approach," *Journal of Product Innovation Management*, 12, 275-93.
- Atuahene-Gima, Kwaku (1996), "Market Orientation and Innovation," *Journal of Business Research*, 35, 93-103.
- Automatie* (2001, in Dutch), "Selling Price, Cost Price Bad Adviser in Determination of Selling Price," 45 (December 12), 13.
- Bagozzi, Richard P. and Lynn W. Philips (1982), "Representing and Testing Organizational Theories: A Holistic Construal," *Administrative Science Quarterly*, 27 (September), 459-89.
- Bagozzi, Richard P., Youjae Yi, and Lynn W. Philips (1991), "Assessing Construct Validity in Organizational Research," *Administrative Science Quarterly*, 36 (September), 421-58.
- Baron, Reuben M. and David A. Kenny (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, 51 (6), 1173-82.
- Bayus, Barry L. (1992), "The Dynamic Pricing of Next Generation Consumer Durables," *Marketing Science*, 11 (3), 251-65.
- Bentler, Peter M. (1990), "Fit Indexes, Lagrange Multipliers, Constraint Changes, and Incomplete Data in Structural Models," *Multivariate Behavioral Research*, 25, 163-72.
- Bentler, Peter M. (1995), *EQS Structural Equations Program Manual*. Encino, CA: Multivariate Software, Inc.
- Bentler, Peter M. and Chih-Ping Chou (1988), "Practical Issues in Structural Modeling," in *Common Problems/Proper Solutions: Avoiding Error in Quantitative Research*, J. Scott Long, ed. Newbury Park, CA: Sage Publications, 161-92.
- Bentler, Peter M. and Eric J.C. Wu (1995), *EQS for Windows User's Guide*. Encino, CA: Multivariate Software, Inc.
- Berry, Leonard L. and A. Parasuraman (1991), *Marketing Services*. New York: Free Press.
- Bhardwaj, Pradeep (2001), "Delegating Pricing Decisions," *Marketing Science*, 20 (2), 143-69.
- Bharadwaj, Sundar, P. Rajan Varadarajan, and John Fahy (1993), "Sustainable Competitive Advantage in Service Industries: A Conceptual Model and Research Propositions," *Journal of Marketing*, 57 (October), 83-99.
- Blinder, Alan S., Elie R.D. Canetti, David E. Lebow, and Jeremy B. Rudd (1998), *Asking About Prices: A New Approach to Understand Price Stickiness*. New York: Russell Sage Foundation.

- Bonoma, Thomas V., Victoria L. Crittenden, and Robert J. Dolan (1988), "Can We Have Rigor and Relevance in Pricing Research," in *Issues in Pricing, Theory and Research*, Timothy M. Devinney, ed. Lexington, MA: Lexington, 337-59.
- Bosveld, Karin (2001, in Dutch), "What the Lunatic Charges: The Importance of Customer Value in Price Setting," *Tijdschrift voor Marketing*, 35 (11), 38-40.
- Brabants Dagblad* (2001, in Dutch), "Customer Value," (September 28), IV.
- Bruggen, Gerrit H. van, and Ale Smidts (1995), "The Measurement of Market Orientation: A Promising Tool for Management?," *Proceedings of CEMS Academic Conference*, Vienna, Austria.
- Brynjolfsson, Erik and Michael D. Smith (2000), "Frictionless Commerce? A Comparison of Internet and Conventional Retailers," *Management Science*, 46 (April), 563-85.
- Buzzell, Robert D. and Bradley Gale (1987), *The PIMS-Principles*. New York: Free Press.
- Byrne, Barbara M. (1994), *Structural Equation Modeling with EQS and EQS/Windows*. Thousand Oaks, CA: Sage Publications.
- Capon, Noel, John U. Farley, and James Hulbert (1975), "Pricing and Forecasting in an Oligopoly Firm," *The Journal of Management Studies*, 12, 133-56.
- Capon, Noel and James Hulbert (1975), "Decision System Analysis in Industrial Marketing," *Industrial Marketing Management*, 4, 143-60.
- Chen, Ming-Jer and Ian C. Macmillan (1992), "Non-response and Delayed Response to Competitive Moves: The Roles of Competitor Dependence and Action Irreversibility," *Academy of Management Journal*, 35 (3), 539-70.
- Chou, Chih-Ping, and Peter M. Bentler (1990), "Model Modification in Covariance Structure Modeling: A Comparison among Likelihood Ratio, Lagrange Multiplier, and Wald Tests," *Multivariate Behavioral Research*, 25 (1), 115-36.
- Churchill, Gilbert A. Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, 16 (February), 64-73.
- Coe, Barbara J. (1990), "Strategy in Retreat: Pricing Drops Out," *The Journal of Business and Industrial Marketing*, 5, (Winter/Spring), 5-25.
- Cohen, Jacob and Patricia Cohen (1983), *Applied Multiple Regression/Correlation Analysis for Behavioral Sciences*. Hillsdale, NJ: Erlbaum Associates.
- Constructeur* (2001, in Dutch), "Cost Price Bad Adviser in Determining Selling Price for Innovations," (November, 11), 40.
- Cooper, Robert G. (1979), "The Dimensions of New Product Failure," *Journal of Marketing*, 43, 93-103.
- Corey, Raymond E. (1962), *Industrial Marketing: Cases and Concepts*. Englewood Cliffs, NJ: Prentice Hall.
- Cressman, George S. Jr. (1999), "Commentary on: "Industrial Pricing: Theory and Managerial Practice"," *Marketing Science*, 18 (3), 455-57.

- Croon, Marcel (2002), "Using Predicted Latent Scores in General Latent Structure Models," in *Latent Variables and Latent Structure Models*, G.A. Marcoulides and Inini Mourtocki, eds. Nahwah, NJ: Lawrence Erlbaum Associates.
- Cyert, Richard M. and James G. March (1963), *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice Hall.
- Day, George S. (1984), *Strategic Market Planning: The Pursuit of Competitive Advantage*. Minneapolis: West Publishing Co.
- Day, George S. (1991), "Learning About Markets," *Marketing Science Institute Report, No. 91-117*. Cambridge, MA: Marketing Science Institute.
- Day, George S. (1994), "The Capabilities of Market-Driven Organizations," *Journal of Marketing*, 58 (October), 37-52.
- Day, George S. (2000), "Managing Market Relationships," *Journal of the Academy of Marketing Science*, 28 (1), 24-30.
- Day, George S. and David B. Montgomery (1999), "Charting New Directions for Marketing," *Journal of Marketing*, 63 (Special Issue), 3-13.
- Day, George S. and Adrian B. Ryans (1988), "Using Price Discounts for a Competitive Advantage," *Industrial Marketing Management*, 17, 1-14.
- Day, George S. and Prakash Nedungadi (1994), "Managerial Representations of Competitive Advantage," *Journal of Marketing*, 58 (April), 31-44.
- Day, George S. and Robin Wensley (1988), "Assessing Advantage: A Framework for Diagnosing Competitive Superiority," *Journal of Marketing*, 52 (April), 1-20.
- Dean, Joel (1950), "Pricing Policies for New Products," *Harvard Business Review*, 28, 45-55.
- Deligönül, Z. Seyda and S. Tamer Çavuşgil (1997), "Does the Comparative Advantage Theory of Competition Really Replace the Neoclassical Theory of Perfect Competition," *Journal of Marketing*, 61 (October), 65-73.
- Deshpandé, Rohit and John U. Farley (1998), "Measuring Market Orientation: Generalization and Synthesis," *Journal of Market Focused Management*, 2, 213-32.
- Deshpandé, Rohit, John U. Farley, and Frederick E. Webster jr. (1993), "Corporate Culture, Customer Orientation and Innovativeness in Japanese Firms: A Quadrant Analysis," *Journal of Marketing*, 57 (January), 23-37.
- Deshpandé, Rohit and Frederick E. Webster jr. (1989), "Organizational Culture and Marketing: Defining the Research Agenda," *Journal of Marketing*, 53 (January), 3-15.
- Dess, Gregory S. and Richard B. Robinson (1984), "Measuring Organizational Performance in the Absence of Objective Measures," *Strategic Management Journal*, 5 (3), 265-73.
- Devinney, Timothy M. (1988), "Remaining Issues and Questions," in *Issues in Pricing, Theory and Research*, Timothy M. Devinney, ed. Lexington, MA: Lexington, 333-35.

- Diamantopoulos, Adamantios (1991), "Pricing: Theory and Evidence-A Literature Review," in *Perspectives on Marketing Management*, M.J. Baker, ed. Chichester: John Wiley and Sons.
- Diamantopoulos, Adamantios and Brian P. Mathews (1994), "The Specification of Pricing Objectives: Evidence from an Oligopoly Firm," *Managerial and Decision Economics*, 15, 73-85.
- Diamantopoulos, Adamantios and Bodo B. Schlegelmilch (1996), "Determinants of Industrial Mail Survey Response: A Survey-on-Surveys Analysis of Researchers' and Managers' Views," *Journal of Marketing Management*, 12, 505-31.
- Dickson, Peter Reid (1992), "Toward a General Theory of Competitive Rationality" *Journal of Marketing*, 56 (January), 69-83.
- Dickson, Peter R. (1996), "The Static and Dynamic Mechanics of Competition: A Comment on Hunt and Morgan's Comparative Advantage Theory," *Journal of Marketing*, 60 (October), 102-6.
- Dierckx, Ingemar and Karel Cool (1989), "Asset Stock Accumulation and Sustainability of Competitive Advantage," *Management Science*, 35 (December), 1504-11.
- Dolan, Robert J. (1995), "How Do You Know When the Price is Right," *Harvard Business Review*, 73 (September-October), 174-83.
- Dolan, Robert J. and Hermann Simon (1996), *Power Pricing: How Managing Price Transforms the Bottom Line*. New York: Free Press.
- Doyle, P., J. Saunders, and L. Wright (1989), "A Comparative Study of US and Japanese Marketing Strategies in British Market," *International Journal of Research in Marketing*, 5 (3), 165-273.
- Drucker, Peter (1954), *The Practise of Management*. New York: Harper & Row.
- Dutta, Shantanu, Mark Zbaracki, and Mark Bergen (2001), "Pricing Process as a Capability: A Case Study," *Marketing Science Institute Working Paper, No. 01-117*. Cambridge, MA: Marketing Science Institute.
- Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, 51 (April), 11-27.
- Edwards, Ronald S. (1952), "The Pricing of Manufactured Products," *Economica*, 19, 298-307.
- Farley, John U., John A. Howard, and James M. Hulbert (1971), "An Organizational Approach to an Industrial Marketing Information System," *Sloan Management Review*, (Fall), 35-54.
- Farley, John U., James M. Hulbert, and David Weinstein (1980), "Price Setting and Volume Planning by Two European Industrial Companies: A Study and Comparison of Decision Processes," *Journal of Marketing*, 44 (Winter), 46-54.
- Fletcher, Tony and Neill Russell-Jones (1997), *Value Pricing: How to Maximize Profits Through Effective Pricing Policies*. London: Kogan.
- Fog, B. (1960), *Industrial Pricing Policies*. Amsterdam: North Holland.

- Foss, Nicolai J. (2000), "The Dangers and Attractions of Theoretical Eclecticism," *Journal of Macromarketing*, 20 (1), 65-67.
- Foxall, Gordon (1972), "A Descriptive Theory of Pricing for Marketing," *European Journal of Marketing*, 6 (3), 190-4.
- Frambach, Ruud T., Ed J. Nijssen, and H. Van Heddegem (1997), "Industrial Pricing Practices and Determinants in Two Sectors," in: *Marketing Theory and Applications, AMA Winter Educators' Conference Proceedings, Vol. 8*, Hartline and Thorne (eds.). Chicago: American Marketing Association, 126-33.
- Frambach, Ruud T., Jaideep Prabhu, and Theo M.M. Verhallen (1998), *The Influence of Business Strategy on Market Orientation and New Product Activity*, CentER Working Paper.
- Frambach, Ruud T., Theo M.M. Verhallen, and Henk C.A. Roest (1995, In Dutch), "Marketing as Most Important Weakness, Research on Market Orientation of Dutch Firms," *Tijdschrift voor marketing*, 29 (July/August), 48-51.
- Gatignon, Hubert and Jean-Marc Xuereb (1997), "Strategic Orientation of the Firm and New Product Performance," *Journal of Marketing Research*, 34 (February), 77-90.
- Gerbing, David W. and James C. Anderson (1988), "An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment," *Journal of Marketing Research*, 25 (May), 186-92.
- Geyskens, Inge, Jan-Benedict E.M. Steenkamp, and Nirmali Kumar (1999), "A Meta-Analysis of Satisfaction in Marketing Channel Relationships," *Journal of Marketing Research*, 36 (May), 223-38.
- Gijsbrechts, Els (1993), "Prices and Pricing Research in Consumer Marketing: Some Recent Developments," *International Journal of Research in Marketing*, 10, 115-51.
- Goodstein, Ronald C. (1994), "UPS Scanner Pricing Systems: Are They Accurate?," *Journal of Marketing*, 58 (April), 20-30.
- Green, Samuel B., Marilyn S. Thompson, and Jennifer Poirier (1999), "Exploratory Analyses to Improve Model Fit: Errors Due to Misspecification and a Strategy to Reduce Their Occurrence," *Structural Equation Modelling*, 6 (1), 113-26.
- Grewal, Druv and Larry D. Compeau (1999), "Pricing and Public Policy: A Research Agenda and an Overview of the Special Issue," *Journal of Public Policy & Marketing*, 18 (1), 3-10.
- Griffin, Abbie and John R. Hauser (1993), "The Voice of the Customer," *Marketing Science*, 12 (1), 1-27.
- Guiltinan, Joseph P. and Gregory T. Grundlach (1996), "Aggressive and Predatory Pricing: A Framework for Analysis," *Journal Marketing*, 60 (July), 87-102.
- Guiltinan, Joseph P. and G.W. Paul (1985), *Marketing Management: Strategies and Programs*, second edition. New York: McGraw-Hill.
- Hague, D.C. (1971), *Pricing in Business*. London: George Allen & Unwin Ltd.
- Hair, Joseph F. Jr., Rolph E. Anderson, Ronald L. Tatham, William C. Black (1995),

- Multivariate Data Analysis with Readings*. Upper Saddle River, NJ: Prentice Hall.
- Hall, R.L. and C.J. Hitch (1939), "Price Theory and Business Behaviour," *Oxford Economic Papers*, 2 (May), 12-45.
- Hamel, Gary and C.K. Prahalad (1994), *Competiting for the Future*. Boston: Harvard Business School Press.
- Han, Jin K., Namwoon Kim, and Hong-Bumm Kim (2001), "Entry Barriers: A Dull-, One-, or Two-Edged Sword for Incumbents? Unraveling the Paradox From a Contingency Perspective," *Journal of Marketing*, 65 (January), 1-14.
- Han, Jin K., Namwoon Kim, and Rajendra K. Srivastava (1998), "Market Orientation and Organizational Performance: Is Innovation a Missing Link?," *Journal of Marketing*, 62 (October), 30-45.
- Hartmann-Olesen, Anton (1999), "Bang & Olufsen: Different by Design," in *Principles of Marketing*, Kotler, Philip, Gary Armstrong, John Saunders, and Veronica Wong. Second European Edition, Upper Saddle River, NJ: Prentice Hall.
- Harzing, Anne-Wil (2000), "Cross-National Industrial Mail Surveys: Why Do Response Rates Differ Between Countries," *Industrial Marketing Management*, 29, 243-54.
- Heil, Oliver P. and Kristiaan Helsen (2001), "Toward an Understanding of Price Wars: Their Nature and How They Errupt," *International Journal of Research in Marketing*, 18 (1-2), 83-98.
- Henard, David H. and David M. Szymanski (2001), "Why Some New Products Are More Successful Than Others," *Journal of Marketing Research*, 38 (August), 362-75.
- Hodgson, Geoffrey M. (2000), "The Marketing of Wisdom: Resource-Advantage Theory," *Journal of Macromarketing*, 20 (1), 68-72.
- Homburg, Christian and Christian Pflesser (2000), "A Multiple-Layer Model of Market-Oriented Organizational Culture: Measurement Issues and Performance Outcomes," *Journal of Marketing Research*, 37 (November), 449-62.
- Homburg, Christian, John P. Workman Jr., and Ove Jensen (2000), "Fundamental Changes in Marketing Organization: The Movement Toward a Customer-Focused Organizational Structure," *Journal of the Academy of Marketing Science*, 28 (4), 459-78.
- Homburg, Christian, John P. Workman Jr., and Harley Krohmer (1999), "Marketing's Influence Within the Firm," *Journal of Marketing*, 63 (April), 1-17.
- Hooley, G.J., C.J. West, and J.E. Lynch (1984), *Marketing in the UK: A Survey of Current Practice and Performance*. Maidenhead, Berkshire: Institute of Marketing.
- Huber, George P. and Daniel J. Power (1985), "Retrospective Reports of Strategic Level Managers: Guidelines for Increasing Their Accuracy," *Strategic Management Journal*, 6 (2), 171-80.

- Hultink, Erik Jan and Kwaku Atuahene-Gima (2000), "The Effect of Sales Force Adoption on New Product Selling Performance," *Journal of Product-Innovation Management*, 17, 435-50.
- Hunt, Shelby D. (1995), "The Resource-Advantage Theory of Competition: Toward Explaining Productivity and Economic Growth," *Journal of Management Inquiry*, 4 (December), 317-32.
- Hunt, Shelby D. (1997a), "Resource-Advantage Theory: An Evolutionary Theory of Competitive Firm Behavior," *Journal of Economic Issues*, 31 (2), 59-77.
- Hunt, Shelby D. (1997b), "Evolutionary Economics, Endogenous Growth Models, and Resource-Advantage Theory," *Eastern Economic Journal*, 23 (4), 425-39.
- Hunt, Shelby D. (1997c), "Resource-Advantage Theory and the Wealth of Nations: Developing the Socio-Economic Research Tradition," *Journal of Socio-Economics*, 26 (4), 335-57.
- Hunt, Shelby D. (1998), "Productivity, Economic Growth, and Competition: Resource Allocation or Resource Creation?," *Business and the Comporary World*, X (3), 367-94.
- Hunt, Shelby D. (1999), "The Strategic Imperative and Sustainable Competitive Advantage: Public Policy Implications of Resource-Advantage Theory," *Journal of the Academy of Marketing Science*, 27 (2), 144-59.
- Hunt, Shelby D. (2000a), *A General Theory of Competition: Resources, Competences, Productivity, Economic Growth*. Thousand Oaks, CA: Sage.
- Hunt, Shelby D. (2000b), "A General Theory of Competition: Too Eclectic or Not Eclectic Enough? Too Incremental or Not Incremental Enough? Too Neoclassical or Not Neoclassical Enough?," *Journal of Macromarketing*, 20 (1), 77-81.
- Hunt, Shelby D. (2000c), "Synthesising Resource-Based, Evolutionary and Neoclassical Thought, Resource-Advantage Theory as a General Theory of Competition," in *Resources, Technology and Strategy Explorations in the Resource-Based Perspective*, Nicolai J. Foss and Paul L. Robertson, eds. London: Routledge, 53-79.
- Hunt, Shelby D. (2001), "A General Theory of Competition: Issues, Answers, and an Invitation," *European Journal of Marketing*, 35 (5/6), 524-48.
- Hunt, Shelby D. and Dennis B. Arnett (2001), "Competition as an Evolutionary Process and Antitrust Policy," *Journal of Public Policy & Marketing*, 20 (1), 15-26.
- Hunt, Shelby D. and Dale F. Duhan (2002), "Competition in the Third Millennium, Efficiency or Effectiveness?," *Journal of Business Research*, 55, 97-102.
- Hunt, Shelby D. and C. Jay Lambe (2000), "Marketing's Contribution to Business Strategy: Market Orientation, Relationship Marketing and Resource-Advantage Theory," *International Journal of Management Reviews*, 2 (1), 17-43.
- Hunt, Shelby D. and Robert M. Morgan (1995), "The Comparative Advantage Theory of Competition," *Journal of Marketing*, 59 (April), 1-15.

- Hunt, Shelby D. and Robert M. Morgan (1996), "The Resource-Advantage Theory of Competition: Dynamics, Path Dependencies, and Evolutionary Dimensions," *Journal of Marketing*, 60 (October), 107-14.
- Hunt, Shelby D. and Robert M. Morgan (1997), "Resource-Advantage Theory of Competition: A Snake Swallowing its Tail or a General Theory of Competition?," *Journal of Marketing*, 61 (October), 74-82.
- Hurley, Robert F. and G. Thomas M. Hult (1998), "Innovation, Market Orientation and Organizational Learning: An Integration and Empirical Examination," *Journal of Marketing*, 62 (July), 42-54.
- Ingenbleek, Paul, Ruud T. Frambach, and Theo M.M. Verhallen (2000), "The Relationship Between Firms' Competencies and Strategic Orientation: What Do Their Strategic Marketing Plans Tell Us?" Paper Presented at the *Conference on Competence-Based Management*, Helsinki.
- Ingenbleek, Paul, Ruud T. Frambach, and Theo M.M. Verhallen (2001, in Dutch), *Pricing: An Investigation of Best Practices*. Breda: Heliview, Research Report.
- Ingenbleek, Paul and A.J.A.M. Van Wijchen (1999, in Dutch), "Marketing Strategy and the Euro: An Inventory and Implications for Management and Research," *Maandblad voor Accountancy en Bedrijfseconomie*, 73 (7/8), 401-8.
- Irwin, Julie R. and Gary H. McClelland (2001), "Misleading Heuristics and Moderated Multiple Regression Models," *Journal of Marketing Research*, 38 (February), 100-9.
- Jain, Sanjay and Joydeep Srivastava (2000), "An Experimental and Theoretical Analysis of Price-Matching Refund Policies," *Journal of Marketing Research*, 37 (August), 351-62.
- James, Lawrence R., Robert G. Demaree, and Gerrit Wolf (1984), "Estimating Within-Group Interrater Reliability With and Without Response Bias," *Journal of Applied Psychology*, 69 (1), 85-98.
- Jaworski, Bernard J. and Ajay K. Kohli (1993), "Market Orientation: Antecedents and Consequences," *Journal of Marketing*, 57 (July), 53-70.
- Jaworski, Bernard J. and Ajay K. Kohli (1996), "Market orientation: Review, Refinement and Roadmap," *Journal of Market Focused Management*, 1, 119-35.
- Jobber, David and Graham Hooley (1987), "Pricing Behaviour in UK Manufacturing Industries," *Managerial and Decision Economics*, 8, 167-71.
- John, George, Allen M. Weiss, and Shantanu Dutta (1999), "Marketing in Technology-Intensive Markets: Toward a Conceptual Framework," *Journal of Marketing*, 63 (Special Issue), 78-91.
- Jones, Geoffrey G. (1996), *The Evolution of International Business*. London: McGraw-Hill.
- Kalwani, Manohar U., Chi Kin Yim, Heikki J. Rimme, and Yoshi Sugita (1990), "A Price Expectation Model of Customer Brand Choice," *Journal of Marketing Research*, 26 (August), 251-62.

- Kalyanam, Kirthi and Thomas S. Shively (1998), "Estimating Irregular Pricing Effects: A Stochastic Spline Regression Approach," *Journal of Marketing Research*, 35 (February), 16-29.
- Kline, Rex B. (1998), *Principles and Practice of Structural Equation Modelling*. New York: Guilford Press.
- Kohli, Ajay K. and Bernard J. Jaworski (1990), "Market Orientation: The Construct, Research Propositions and Managerial Implications," *Journal of Marketing*, 54 (April), 1-18.
- Kohli, Ajay K., Bernard J. Jaworski, and Ajith Kumar (1993), "MARKOR: A Measure of Market Orientation," *Journal of Marketing Research*, 30 (November), 467-77.
- Kotler, Philip, Gary Armstrong, John Saunders, and Veronica Wong (1999), *Principles of Marketing*. Second European Edition, Upper Saddle River, NJ: Prentice Hall.
- Levitt, Theodore (1960), "Marketing Myopia," *Harvard Business Review*, 38, 45-56.
- Liesker, Frieso (2001, in Dutch), "Price Most Underestimated Marketing Instrument," *Het Financieele Dagblad*, 21 November, 9.
- Lusch, Robert F. and Bernard J. Jaworski (1988), "Book Reviews," *Journal of Marketing*, 52 (July), 133-140.
- Lynn, Gary S., James T. Simpson, and William E. Souder (1997), "Effects of Organizational Learning and Information-Processing Behaviors on New Product Success," *Marketing Letters*, 8 (1), 33-39.
- Lynn, Gary S., Richard B. Skov, and Kate D. Abel (1999), "Practices That Support Team Learning and Their Impact on Speed to Market and New Product Success," *Journal of Product-Innovation Management*, 16, 439-54.
- MacKitterick, J.B. (1957), "What is the Marketing Management Concept?," *The Frontiers of Marketing Thought and Action, AMA Chicago*, 71-82.
- Maltz, Elliot and Ajay K. Kohli (1996), "Market Intelligence Dissemination Across Functional Boundaries," *Journal of Marketing Research*, 33, 47-61.
- Management Control & Accounting* (2001, in Dutch), "Cost Price Bad Adviser for Selling Price," 5 (October 5), 16.
- Management Team* (2001), "V&A," (October 19), 11.
- Marketing Actueel* (2001, in Dutch), "Cost Price Bad Adviser," (November).
- Marketing Online* (2001a, in Dutch), "Cost Price Bad Adviser," (September 24), www.marketingonline.nl/nieuws.
- Marketing Online* (2001b, in Dutch), "Seminar Best Practices in Pricing," (October 15), www.marketingonline.nl/nieuws.
- Matsuno, Ken and John T. Mentzer (2000), "The Effects of Strategy Type on the Market Orientation-Performance Relationship," *Journal of Marketing*, 64 (October), 1-16.
- McKee, Daryl (1992), "An Organizational Learning Approach to Product Innovation," *Journal of Product-Innovation Management*, 9, 232-45.

- McKee, Daryl O., P. Rajan Varadarajan, and William M. Pride (1989), "Strategic Adaptability and Firm Performance: A Market-Contingent Perspective," *Journal of Marketing*, 53 (July), 21-35.
- Menon, Anil and P. Rajan Varadarajan (1992), "A Model of Marketing Knowledge Use Within Firms," *Journal of Marketing*, 56 (October), 53-71.
- Monroe, Kent B. (1990), *Pricing: Making Profitable Decisions*. New York: McGraw-Hill.
- Monroe, Kent B. (1993), "Pricing Practices which Endanger Profits," *Pricing Strategy & Practice*, 1 (1), 4-10.
- Monroe, Kent B. and Albert J. Della Bitta (1978), "Models for Pricing Decisions," *Journal of Marketing Research*, 15 (August), 413-28.
- Monroe, Kent B. and Tradib Mazumdar (1988), "Pricing-Decision Models: Recent Developments and Opportunities," in *Issues in Pricing, Theory and Research*, Timothy M. Devinney, ed. Lexington, MA: Lexington, 360-88.
- Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 20-38.
- Morris, Michael H. and Mary L. Joyce (1988), "How Marketers Evaluate Price Sensitivity," *Industrial Marketing Management*, 17, 169-76.
- Moorman, Christine (1995), "Organizational Market Information Processing," *Journal of Marketing Research*, 32 (August), 314-28.
- Moorman, Christine and Anne S. Miner (1997), "The Impact of Organizational Memory on New Product Performance and Creativity," *Journal of Marketing Research*, 34 (February), 91-106.
- Moorman, Christine and Anne S. Miner (1998), "The Convergence of Planning and Execution: Improvisation in New Product Development," *Journal of Marketing*, 62 (July), 1-20.
- Moorman, Christine and Ronald T. Rust (1999), "The Role of Marketing," *Journal of Marketing*, 63 (Special Issue), 180-97.
- Moorman, Christine and Rebecca J. Slotegraaf (1999), "The Contingency Value of Complementary Capabilities in Product Development," *Journal of Marketing Research*, 36 (May), 239-57.
- Murry, John P., Jr. and Jan B. Heide (1998), "Managing Promotion Program Participation within Manufacturer-Retailer Relationships," *Journal of Marketing*, 62 (January), 58-68.
- Myers, Matthew B. (1997), "The Pricing of Export Products: Why Aren't Managers Satisfied With the Results?," *Journal of World Business*, 32, 277-89.
- Nagle, Thomas (1984), "Reviews of Research in Pricing," *Journal of Business*, 57 (1), S3-26.
- Nagle, Thomas T. (1987), *The Strategy and Tactics of Pricing*. Englewood Cliffs, NJ: Prentice Hall.
- Nagle, Thomas T. and Read K. Holden (1995), *The Strategy and Tactics of Pricing: A Guide to Profitable Decision Making*. Englewood Cliffs, NJ: Prentice Hall.

- Narver, John C. and Stanley F. Slater (1990), "The Effect of a Market Orientation on Business Profitability," *Journal of Marketing*, 54 (October), 20-35.
- Nimer, Daniel A. (1971), "There's More to Pricing Than Most Companies Think," in *The Pricing Function: A Pragmatic Approach*, Ivan R. Vernon and Charles W. Lamb, Jr., eds. Lexington, MA: Lexington, 19-33.
- Noble, Peter M. and Thomas S. Gruca (1999a), "Industrial Pricing: Theory and Managerial Practice," *Marketing Science*, 18 (3), 435-54.
- Noble, Peter M. and Thomas S. Gruca (1999b), "Response to the Comments on 'Industrial Pricing: Theory and Managerial Practice'," *Marketing Science*, 18 (3), 458-59.
- Noble, H. Charles and Michael P. Mokwa (1999), "Implementing Marketing Strategies: Developing and Testing a Managerial Theory," *Journal of Marketing*, 63 (October), 57-73.
- NRC Handelsblad* (2000, in Dutch), "Profits on Petrol Elastic Concept," (September 13), 3.
- O'Connor, Gina C. (1998), "Market Learning and Radical Innovation: A Cross Case Comparison of Eight Radical Innovation Projects," *Journal of Product Innovation Management*, 15, 151-66.
- Ottum, Brian D. and William L. Moore (1997), "The Role of Market Information in New Product Success/Failure," *Journal of Product Innovation Management*, 14, 258-73.
- Oxenfeldt, Alfred R. (1973), "A Decision-Making Structure for Price Decisions," *Journal of Marketing*, 37 (January), 48-53.
- Oxenfeldt, Alfred R. (1983), "Pricing Decisions: How They Are Made and How They Are Influenced," *Management Review*, (November), 23-25.
- Partviatayar, Atul, Jagdish N. Sheth, and F. Brown Whittington, Jr. (1992), "Paradigm Shift in Interfirm Marketing Relationships: Emerging Research Issues," working paper, Emory University.
- Pashigian, B. Peter (1998), *Price Theory and Applications*. New York: Irwin/McGraw-Hill.
- Pass, Christopher (1971), "Pricing Policies and Market Strategy: An Empirical Note," *European Journal of Marketing*, 5 (3), 94-98.
- Pearce, I.F. (1956), "A Study in Price Policy," *Economica*, 23 (May), 114-127.
- Pelham, Alfred M. and David T. Wilson (1995), "Does Market Orientation Matter for Small Firms?," *Marketing Science Institute Report, No. 95-102*. Cambridge, MA: Marketing Science Institute.
- Penrose, Edith T. (1959), *The Theory of the Growth of the Firm*. London: Basil Blackwell and Mott.
- Peter, J. Paul, Gilbert A. Churchill Jr., and Tom J. Brown (1993), "Caution in the Use of Difference Scores in Consumer Research," *Journal of Consumer Research*, 19 (March), 655-62.

- Piercy, Nigel (1981), "British Export Market Selection and Pricing," *Industrial Marketing Management*, 10, 287-97.
- Podsakoff, Philip M. and Dennis Organ (1986), "Self-Reports in Organizational Research: Problems and Prospects," *Journal of Management*, 12 (Winter), 531-43.
- Porter, Michael E. (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.
- Porter, Michael E. (1985), *Competitive Advantage*. New York: The Free Press.
- Rajendran, K.N., and Gerard J. Tellis (1994), "Contextual and Temporal Components of Reference Price," *Journal of Marketing*, 58 (January), 22-34.
- Rao, Vithala R. (1984), "Pricing Research in Marketing: The State of the Art," *Journal of Business*, 57 (1), S39-60.
- Rao, Akshay R. and Kent B. Monroe (1989), "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review," *Journal of Marketing Research*, 26 (August), 351-57.
- Rindfleisch, Aric and Christine Moorman (2001), "The Acquisition and Utilization of Information in New Product Alliances: A Strength-of-Ties Perspective," *Journal of Marketing*, 65 (April), 1-18.
- Robicheaux, R.A. (1975), "How Important is Pricing in Competitive Strategy," in *Proceedings Southern Marketing Association*, H.W. Nash and D.P. Robin, eds. (January), 55-57.
- Ruekert, Robert W. (1992), "Developing a Market Orientation: An Organizational Strategy Perspective," *International Journal of Research in Marketing*, 9, 225-45.
- Samiee, Saeed (1987), "Pricing in Marketing Strategies of U.S.- and Foreign-Based Companies," *Journal of Business Research*, 15, 17-30.
- Samiee, Saeed and Patrik Anckar (1998), "Currency Choice in Industrial Pricing: A Cross-National Investigation," *Journal of Marketing*, 62 (July), 112-27.
- Sanchez, Ron, Aimé Heene, and Howard Thomas (1996), *Dynamics of Competence-Based Competition*. New York: Elsevier Science.
- Saunders, John, Michael Brown, and Stuart Laverick (1992), "Research Notes on the Best British Companies: A Peer Evaluation of Britain's Leading Firms," *British Journal of Management*, 3 (4), 181-95.
- Savitt, Ronald (2000), "A Philosophical Essay about *A General Theory of Competition: Resources, Competences, Productivity, Economic Growth*," *Journal of Macromarketing*, 20 (1), 73-6.
- Schoonhoven, Claudia Bird (1981), "Problems with Contingency Theory: Testing Assumptions Hidden within the Language of Contingency 'Theory'," *Administrative Science Quarterly*, 26, 349-77.
- Shankar, Venkatesh and Ruth N. Bolton (1999), "Dimensions and Determinants of Retailer Pricing Strategy and Tactics," *Marketing Science Institute Working Paper, No. 99-101*. Cambridge, MA: Marketing Science Institute.
- Shapiro, Benson P. (1988), "What the Hell is 'Market Oriented'," *Harvard Business Review*, 66 (November-December), 119-25.

- Shapiro, Benson P. and Barbara B. Jackson (1978), "Industrial Pricing to Meet Customer Needs," *Harvard Business Review*, 56 (November-December), 119-27.
- Shapiro, Carl and Hal R. Varian (1999), *Information Rules: A Strategic Guide to the Network Economy*. Boston, MA: Harvard Business School Press.
- Sharma, Subhash, Richard M. Durand, and Oded Gur-Arie (1981), "Identification and Analysis of Moderator Variables," *Journal of Marketing Research*, 18 (August), 291-300.
- Shiple, David D. (1981), "Pricing Objectives in British Manufacturing Industry," *Journal of Industrial Economics*, 29 (June), 429-43.
- Shiple, David D. (1983), "Pricing Flexibility in British Manufacturing Industry," *Managerial and Decision Economics*, 4 (4), 224-33.
- Siguaw, Judy A., Gene Browne, and Robert A. Widing (1994), "The Influence of the Market Orientation of the Firm on Sales Force Behavior and Attitudes", *Journal of Marketing Research*, 31 (February), 106-16.
- Siguaw, Judy A., Penny M. Simpson, and Thomas L. Baker (1998), "Effects of Supplier Market Orientation on Distributor Market Orientation and the Channel Relationship: The Distributor Perspective", *Journal of Marketing*, 62 (July), 99-111.
- Simon, Hermann (1989), *Price Management*. Amsterdam: North-Holland.
- Simon, Hermann (1992), "Pricing Opportunities and How to Exploit Them," *Sloan Management Review*, (Winter), 55-65.
- Sinkula, James M. (1994), "Market Information Processing and Organizational Learning," *Journal of Marketing*, 58 (January), 35-45.
- Sinkula, James M., William E. Baker, and Thomas Noordewier (1997), "A Framework for Market-Based Organizational Learning: Linking Values, Knowledge, and Behavior," *Journal of the Academy of Marketing Science*, 25 (4), 305-18.
- Sizer, John (1966), "The Accountant's Contribution to the Pricing Decision," *Journal of Management Studies*, 3 (May), 129-49.
- Skinner, R.C. (1970), "The Determination of Selling Prices," *Journal of Industrial Economics*, 18, 201-17.
- Skrondal, Anders and Petter Laake (2001), "Regression Among Factor Scores," *Psychometrika*, 66, 4, 563-76.
- Slater, Stanley F. (1997), "Developing a Customer Value-Based Theory of the Firm," *Journal of the Academy of Marketing Science*, 25 (2), 162-67.
- Slater, Stanley F. and John C. Narver (1994), "Does Competitive Environment Moderate the Market Orientation-Performance Relationship," *Journal of Marketing*, 58 (January), 46-55.
- Slater, Stanley F. and John C. Narver (1995), "Market Orientation and the Learning Organization," *Journal of Marketing*, 59 (July), 63-74.
- Slater, Stanley F. and John C. Narver (1998), "Customer-led and Market Oriented: Let's not Confuse the Two," *Strategic Management Journal*, 19, 1001-6.

- Slater, Stanley F. and John C. Narver (2000), "Intelligence Generation and Superior Customer Value," *Journal of the Academy of Marketing Science*, 28 (1), 120-7.
- Smith, Gerald E. and Thomas T. Nagle (1994), "Financial Analysis for Profit-Driven Pricing," *Sloan Management Review*, (Spring), 71-84.
- Srivastava, Joydeep, Dipankar Chakravarti, and Amnon Rapoport (2000), "Price and Margin Negotiations in Marketing Channels: An Experimental Study of Sequential Bargaining Under One-Sided Uncertainty and Opportunity Cost of Delay," *Marketing Science*, 19 (2), 163-84.
- Steenkamp, Jan-Benedict E.M., Frenkel Ter Hofstede, and Michel Wedel (1999), "A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer Innovativeness," *Journal of Marketing*, 63 (April), 55-69.
- Stewart, Jon (1991), *Econometrics*. Upper Saddle River, NJ: Prentice Hall.
- Stremersch, Stefan and Gerard J. Tellis (2002), "Strategic Bundling of Products and Prices: A New Synthesis for Marketing," *Journal of Marketing*, 66 (January), 55-72.
- Tellis, Gerard J. (1986), "Beyond the Many Faces of Price: An Integration of Pricing Strategies," *Journal of Marketing*, 50 (October), 146-60.
- Tellis, Gerard J. (1988), "The Price Elasticity of Selective Demand: A Meta-Analysis of Econometric Models of Sales," *Journal of Marketing Research*, 25 (November), 331-41.
- Tellis, Gerard J. and Gary J. Gaeth (1990), "Best Value, Price-Seeking, and Price Aversion: The Impact of Information and Learning on Consumer Choices," *Journal of Marketing*, 54 (April), 34-45.
- Tellis, Gerard J. and Birger Wernerfelt (1987), "Competitive Price and Quality Under Asymmetric Information," *Marketing Science*, 6 (3), 240-53.
- Thorelli, Hans (1986), "Networks: Between Markets and Hierarchies," *Strategic Management Journal*, 7, 37-51.
- Tijdschrift Controlling* (2001, in Dutch), "Cost Price Bad Adviser," 16 (11 November), 9.
- Tzokas, Nikolaos, Susan Hart, Paraskevas Argouslidis, and Michael Saren (2000), "Industrial Export Pricing Practices in the United Kingdom," *Industrial Marketing Management*, 29, 191-204.
- Udell, Jon G. (1964), "How Important is Pricing in Competitive Strategy?," *Journal of Marketing*, 28 (January), 44-8.
- Udell, Jon G. (1968), "The Perceived Importance of the Elements of Strategy," *Journal of Marketing*, 32 (January), 34-40.
- Udell, Jon G. (1972), *Successful Marketing Strategies in American Industry*. Madison: Mimir.
- Urbany, Joel E. (2000), "Justifying Profitable Pricing," *Marketing Science Institute Report, No. 00-117*. Cambridge, MA: Marketing Science Institute.

- Urbany, Joel E. (2001), "Are Your Prices Too Low?," *Harvard Business Review*, 79 (9), 26-7.
- Van de Velde, Karlien (2001), "Euro Will Not Lead Allways and Everywhere to Price Harmonization," *De Financieel-Economische Tijd*, (September 28), 5.
- Venkatraman, N. and Vasudevan Ramanujam (1986), "Measurement of Business Performance in Strategic Research: A Comparison of Approaches," *Academy of Management Review*, (4), 801-14.
- Verhallen, Theo M.M., Ruud T. Frambach, and Jaideep Prabhu (1998), "Strategy Based Segmentation of Industrial Markets," *Industrial Marketing Management*, 27, 305-13.
- Voss, Glenn B. and Zannie Giraud Voss (2000), "Strategic Orientation and Firm Performance in an Artistic Environment," *Journal of Marketing*, 64 (January), 67-83.
- Ward, Scott and Frederick, E. Webster Jr. (1991), "Organizational Buying Behavior," in *Handbook of Consumer Behavior*, Thomas S. Robertson and Harold H. Kassarajian, eds. Englewood Cliffs: Prentice Hall, p. 419-58.
- Webster jr., Frederick E. (1992), "The Changing Role of Marketing in the Corporation," *Journal of Marketing*, 56 (October), 1-17.
- Webster jr., Frederick E. (1994), "Executing the Marketing Concept," *Marketing Management*, 3 (1), 9-16.
- Wentz, Theodore E. (1966), "Realism in Pricing Analyses," *Journal of Marketing*, 30 (April), 19-26.
- Wernerfelt, Birger (1984), "A Resource-Based View of the Firm," *Strategic Management Journal*, 5, 171-80.
- Woodruff, Robert B. (1997), "Customer Value: The Next Source for Competitive Advantage," *Journal of the Academy of Marketing Science*, 25 (2), 139-53.
- Workman, John P. Jr. (1993), "Marketing's Limited Role in New Product Development in One Computer System Firm," *Journal of Marketing Research*, 30 (November), 405-21.
- Workman, John P. Jr., Christian Homburg, and Kjell Gruner (1998), "Marketing Organization: An Integrative Framework of Dimensions and Determinants," *Journal of Marketing*, 62 (July), 21-41.
- Zeithaml, Valerie A. (1988), "Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing*, 52 (July), 2-22.

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PAUL INGENBLEEK (1972) studied History of Society at Erasmus University Rotterdam with a major in business history. In 1997 he started his Ph.D. research at the Marketing Department of Tilburg University. Currently, he is assistant professor in marketing at Wageningen University and scientific researcher at the Dutch Institute for Agricultural Economics in The Hague. His research interests cover various topics in marketing strategy, including organizational pricing behavior, market orientation, and international marketing channels.

The creation of customer value in products and services has proven to be a successful business strategy over the last years. This thesis examines how firms successfully can determine prices for the customer value they create. Taking a general theory of nonprice competition as the starting point, it conceptualizes pricing as a competence that enables a firm to take the financial rewards for creating and sustaining competitive advantage. It describes the processes and decision areas of this competence. In three empirical projects it examines new product pricing practices of firms and draws relationships with value creation and market orientation. The results have implications for business managers, public policy makers, academic researchers, and business educators.

ISBN: 90 5668 109 5