

A structured review on the mechanisms of value-based pricing: towards a conceptual framework for new businesses how to operationalize it in practice

Working paper
by Tatjana Christen
University of St. Gallen

Abstract

Pricing is a key lever for increasing the profitability of firms and researchers agree on the superiority of a value-based pricing strategy compared to cost- or competition-based approaches. However, value-based pricing is not yet universally applied in practice—a phenomenon described as the “value-based pricing paradox.” To address this discrepancy, we aggregate prior research insights concerning the mechanisms of value-based pricing and barriers to its implementation (i.e., how to conduct value quantification and how to communicate value to the customer). We then map these barriers to existing solutions and approaches proposed in literature, before developing a conceptual framework to guide new businesses in the operationalization of value-based pricing.

Keywords: value-based pricing, value-based pricing paradox, pricing strategies, value quantification, value communication

1 Introduction & study goal

Pricing has been identified as a lever for competitive advantage and as a strong factor in increasing profitability (Hinterhuber, 2023; Hinterhuber & Liozu, 2014; Ingenbleek, 2014; Simon, 1996), for example, by capturing a higher portion of the customers' willingness to pay (Piercy et al., 2010). However, pricing is a complex phenomenon, especially for new products (Ingenbleek et al., 2003). Setting the right price is not simply about increasing it, but rather about finding the right price in the eyes of consumers—which is influenced by the perceived value of the product (Kortge & Okonkwo, 1993; Yip, 2012). Investigating how to optimize price is, thus, of major interest for both, researchers and practitioners.

Prior literature suggests that the implementation of a value-based pricing strategy, where price setting focuses on value perceived by the customer, is superior to traditional cost-based or competition-based pricing strategies, where prices are solely derived by information on the company's cost structure or market prices (Ingenbleek et al., 2003, p. 301; Kortge & Okonkwo, 1993; Töytäri et al., 2015). But, value-based pricing has not equally arrived in practice where cost- and competition-based pricing is still prevalent (Hinterhuber & Liozu, 2014). Often, the development and adoption of required capabilities is identified as one of the major barriers to the successful implementation of value-based pricing (Liozu, 2017, 2021; Töytäri et al., 2015, 2017). In general, the application of a sophisticated pricing model would require core knowledge on either the product itself, market demand, competition or consumer behavior. This is, in case of value-based pricing, the value quantification for the customer (Johansson et al., 2017; Liozu, 2017; Töytäri et al., 2017). For example, firms—and new businesses in particular—often lack the ability to apply value-based pricing due to limited availability of data on customer interaction with their new products or services, and limited experience, resources, and expertise in how to interpret and use such data for pricing (Hinterhuber, 2008). Another difficulty in the implementation of a value-based pricing strategy is communicating the value to the customer (Hinterhuber, 2008, p. 46; Töytäri et al., 2017). For new businesses, both challenges are expected to be even more prevalent due to their limited availability of resources.

This study aims to further investigate the challenges associated with value-based pricing and to provide a roadmap for future research on the gap between the recognition of value-based pricing as superior pricing strategy in research versus its underapplication in practice, where cost- or competition-based approaches are still prevalent. To build the groundwork, we conduct a structured literature review and synthesize prior research to identify the mechanisms of value-based pricing. Then, we conceptualize an approach through which new businesses can operationalize value-based pricing. We outline the implications for new businesses, who face additional challenges due to limited resources and a lack of prior experience. Our research adds to the ongoing conversation on value-based pricing within the literature (e.g., Hinterhuber, 2008; Ingenbleek, 2007; Liozu, 2017; Raja et al., 2020) and is summarized by the following research question:

RQ: What are the mechanisms unique to value-based pricing and how can it be operationalized in practice?

2 Methodology

2.1 Method

We selected a two-step approach to address the stated research question. First, we synthesized prior research findings to identify the mechanisms of value-based pricing and map existing solutions in literature to the elements of value-based pricing. Second, we used our findings to develop and discuss a conceptual framework how to operationalize value-based pricing in practice and to provide directions for future research. For the first step, we conducted a structured literature review, following methods applied by prior authors (e.g., Grégoire et al., 2011; Parmigiani & King, 2019; Webster & Watson, 2002).

2.2 Data collection

To identify relevant articles, we followed previously used approaches and guidelines how to conduct a structured literature reviews, first, starting with a keyword search (e.g., Grégoire, Corbett, & McMullen, 2011; Vom Brocke, 2009; Webster & Watson, 2002). We searched for the keyword “value-based pricing” or “value-informed pricing” in titles or abstracts of academic journals via the meta-search of the St. Gallen University online library (via EBSCO host). We chose this broad-search approach to increase external validity by not pre-defining a list of target journals (Grégoire et al., 2011).

Table 1: Number of papers by journal

Journal name	# of papers	in %
Management	23	37%
Management	23	37%
Business Horizons	3	5%
Business Management Dynamics	1	2%
Business Strategy Review	1	2%
European Conference of Information Systems	1	2%
European Management Journal	1	2%
Harvard Business School Publications	1	2%
Journal of Business Research	3	5%
Journal of Business Strategy	4	6%
Journal of Economics	1	2%
Management Decision	3	5%
MIT Sloan Management Review	1	2%
Revista de Administracao	1	2%
Strategic Management Journal	1	2%
The Quarterly Journal of Economics	1	2%
Marketing	39	62%
Marketing	16	25%
Industrial Marketing Management	9	14%
Journal of Business & Industrial Marketing	2	3%
Journal of Research in Marketing and Entrepreneurship	1	2%
Journal of Strategic Marketing	1	2%
Journal of Targeting, Measurement & Analysis for Marketing	1	2%
Marketing	1	2%
Marketing Letters	1	2%
Market Research	2	3%
International Journal of Market Research	1	2%
Journal of Consumer Research	1	2%
Product	5	8%
Journal of Product & Brand Management	3	5%
Journal of Product Innovation Management	2	3%
Pricing	16	25%
Journal of Revenue & Pricing Management	16	25%
Book	1	2%
Total	63	100%

The search included all articles in English language published in academic (peer-reviewed) journals, with no limitation to the publication date. The initial search provided us with 1282 articles. We aimed to increase the relevance of the articles in the initial sample by taking additional steps. First, we only included articles from journals in the field of marketing, general management, or entrepreneurship. In particular, we defined the journal to contain the keywords market*, pricing, business, management, entrepreneur*, or ventur*. From this list, we further excluded journals with narrow industry focus (e.g., on agriculture, health policy, education or financial markets) or different functional focus (e.g., supply chain or organization).

2.3 Data overview

The journal specification resulted in a list of 336 articles to be reviewed in detail. In a next step, we assessed the papers' relevance by reading title and abstract and further excluded articles if their topic did not contribute to the purpose of our study, excluding 180 papers. Also, we excluded 12 editorials, commentaries, case studies for teaching, and reviews. Finally, 91 papers were excluded from the list due to double count or non-available source. During our research we came across 10 papers which were not in the initial list but were added as an original source or to expand our research by relevant findings. Overall, the structured literature review comprised 63 papers in detail, a relevant set of high-quality articles as suggested in Parmigiani & King (2019). The list of papers allocated to journals is shown in Table 1. The distribution of papers by topic is illustrated in Table 2.

Table 2: Number of papers by topic

Main topic	# of papers	in %
(Value-based) pricing strategies	25	40%
Pricing process & implementation	21	33%
Practical pricing approach	11	17%
Customer behavior	4	6%
Pricing theory	2	3%
Total	63	100%

3 Findings

3.1 Prior overviews on value-based pricing

First, we would like to acknowledge prior studies which provide overviews on the current state of research on value-based pricing and its implementation in practice. Ingenbleek (2007) synthesizes prior streams of literature on pricing and identifies three hurdles in the research of value-based pricing. First, the descriptive nature of studies, second, the misalignment or different use of pricing concepts and, third, a lack of a pricing framework for firms. Overall, Ingenbleek emphasizes the relevance of value-based pricing for market performance—due to a better match of prices to customer value perception and product quality—and subsequently for firm profit. He conceptualizes a framework to help firms create a value-based pricing process.

Also, the practice perspective has been analyzed thoroughly. Liozu's paper (2017) provides a recent understanding on the state of value-based pricing in practice, building upon the prior literature stream which has emerged on the value-based pricing paradox—the strong recommendation from a research perspective on the one hand but yet little adoption and implementation in practice on the other hand. In a large-scale survey with pricing managers, Liozu finds that only 25% of survey respondents have been involved in a value-based pricing initiative versus cost-based (31%) or competition-based (44%) initiatives. Similar to Ingenbleek's findings, the main obstacle is found to be a lack of in the alignment of conceptual understanding of value-based pricing ranging from being a pricing strategy to an actionable approach.

However, our structured literature review showed that there are more hurdles to the implementation of value-based pricing, such as developing the required implementation capabilities, especially in value quantification and communication (Liozu, 2017; Töytäri et al., 2015, 2017). Our research results outlined in the following built upon the author's findings and incorporated recent insights from the past decade. In addition, we addressed the identified hurdles by providing a review on the mechanisms of value-based pricing and by deriving an approach for its operationalization in practice.

3.2 The mechanisms of value-based pricing

In the literature, three pricing strategies are distinguished: competition-based pricing, cost-based pricing, and customer-based pricing. A customer-based pricing strategy,

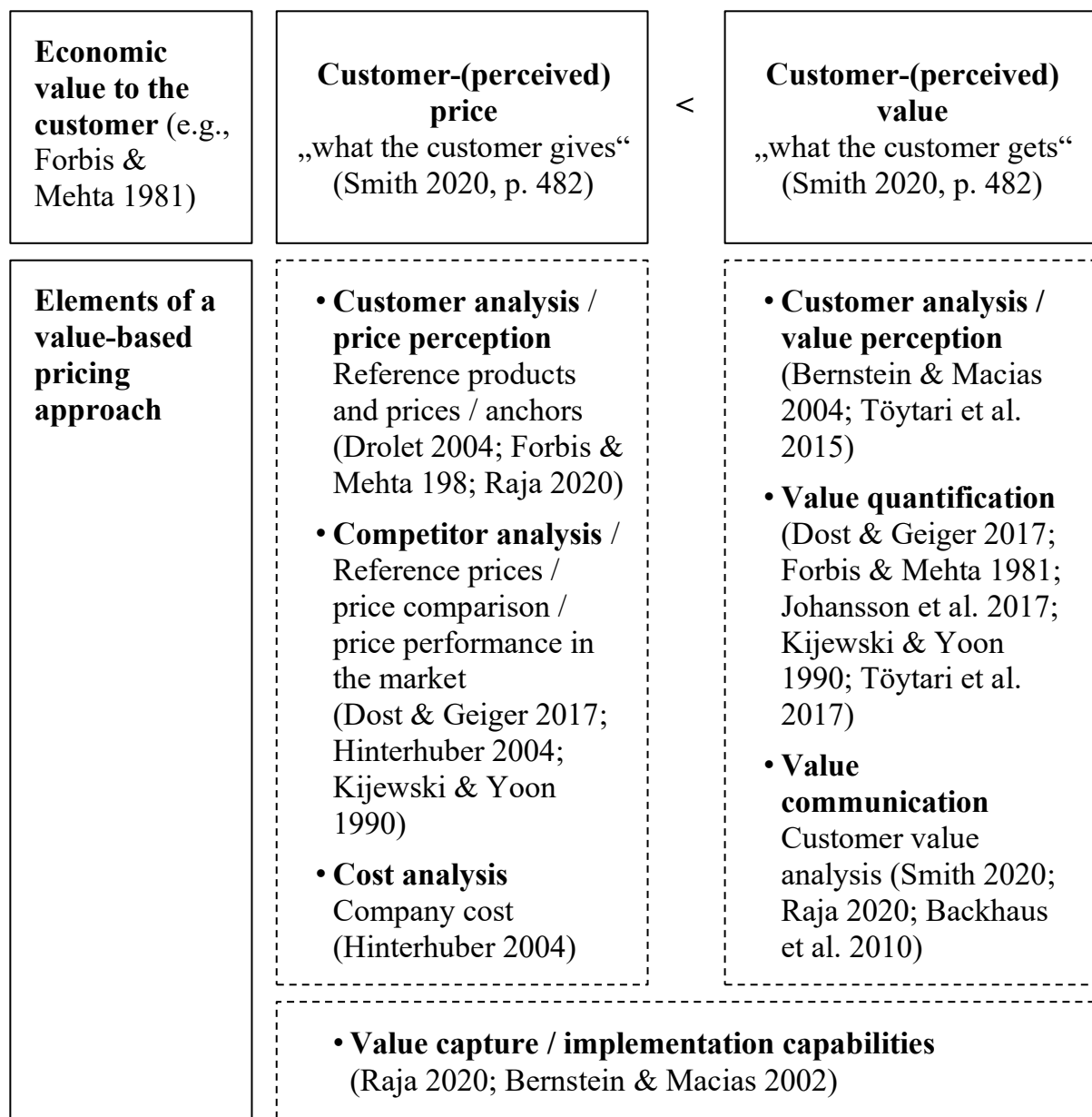
referred to as value-based pricing or value-informed pricing (Ingenbleek et al., 2003, 2010; Simon, 1996), is often recognized as superior to the other two (Hinterhuber, 2008; Ingenbleek et al., 2003, 2013; Liozu & Hinterhuber, 2013). Value-based pricing refers to pricing strategies which are focusing on the value creation for the customer and where price is derived from the amount that the customer is willing to pay (Christopher & Gattorna, 2005; Forbis & Mehta, 1981; Yip, 2012). They consider that the comparison of received customer value to price paid must be a positive case for the customer: i.e., the customer value „what the customer gets” (Smith, 2020, p. 482) must exceed the price „what the customer gives” (Smith, 2020, p. 482). We follow the definition by Töytäri et al. (2015) and refer to the *customer(-perceived) value* and the *customer(-perceived) price*. Their delta describes the value-add to another company’s value chain in case of a B2B scenario or refers to the perceived benefit of an end customer in case of a business-to-consumer (B2C) purchase decision (Farres, 2012). In contrast, cost- or competitor-based pricing strategies are largely focusing on the company’s cost structure and reference prices in the market.

The success of pricing strategies focusing on value creation for the customer has been explained by the theory of economic value (e.g., Bowman & Ambrosini, 2000; Forbis & Mehta, 1981). Firms can foster a sustainable competitive advantage by creating value on the one hand, and by increasing their share of captured value on the other hand (Bowman & Ambrosini, 2000; Forbis & Mehta, 1981). In addition, the differentiation of individual customer’s willingness to pay can be used as a lever for price discrimination: e.g., by introducing quantity discounts or pricing by customer segments, or—in the extreme form—making each customer pay the individual highest price (Ekelund, 1970; Johansson et al., 2012). In contrast to this strong focus on *customer(-perceived) value* and willingness to pay, cost- or competition-based pricing strategies have a narrower focus on the *customer(-perceived) price*.

We integrated prior findings on *customer-perceived price* and *customer-perceived value* and their relation into a theoretical framework, illustrated in Figure 1. To assess the *customer(-perceived) price* companies can conduct competitor and cost analysis (Dost & Geiger, 2017; Hinterhuber, 2004; Kijewski & Yoon, 1990), accompanied by customer analysis on price perception (Drolet, 2004; Raja et al., 2020)—concepts, that are commonly incorporated in cost- and competitor-based pricing strategies. A value-based pricing strategy extends traditional approaches by analyzing the *customer(-perceived)*

value, e.g. through value quantification, value communication, and value capture (Hinterhuber, 2008; Johansson et al., 2017; Liozu, 2017; Smith, 2020; Töytäri et al., 2017)—not necessarily neglecting the importance of the *customer(-perceived) price* as important baseline (Amaral & Guerreiro, 2019; Guerreiro & Amaral, 2018). Finally, in order to take the next level towards a value-based pricing strategy, firms must change existing organizational capabilities and develop new implementation capabilities (Bernstein & Macias, 2002; Johansson et al., 2012; Liozu & Hinterhuber, 2012; Raja et al., 2020).

Figure 1: The mechanisms of value-based pricing: a theoretical framework for value-based pricing



3.3 The superiority of value-based pricing

Value-based pricing has been found to positively influence firm performance, for instance measured in product advantage and new product market performance, and researchers broadly agree on its superiority versus cost- or competition-based pricing strategies (Ingenbleek, 2007; Ingenbleek et al., 2010, 2013; Liozu & Hinterhuber, 2013).

In a highly competitive environment, cost-based pricing can be an optimal strategy to undercut competitors in order to increase market share (Ingenbleek et al., 2013). Such a pricing orientation helps a firm to understand very well the price floor but does not necessarily reflect how much a potential customer is willing to pay (Ingenbleek et al., 2003). Thus, cost-based pricing can result in prices that are too high—not generating the optimal level of demand—or too low—neither reflecting market prices nor the value perceived by the customer and reducing margins unnecessarily. In that case, a competitor-based pricing can be better than cost-based pricing for identifying the price floor, and, a generally accepted market price level can be found (Ingenbleek et al., 2013). However, a decreased profit margin is still risked when the market price does not optimally reflect individual customers' willingness to pay, or when relative product value differs compared to the competition—in which case potential positive effects by product advantage could be diminished through wrong pricing practices (Ingenbleek et al., 2003, 2013; Pohland & Kesgin, 2018). Overall, Liozu & Hinterhuber (2013) find a that competition-based pricing is negatively related to firm performance. Hence, a value-based pricing strategy often outperforms other pricing strategies.

However, firms should consider their underlying goal—such as high margins versus high market share—and market scenarios—such as the level of competitive intensity, product advantage and product cost—when deciding on the pricing strategy. A combination of value-based pricing with one of the could also be the optimal strategy (Ingenbleek et al., 2013). Subsequent study results indicate that value-based pricing and the adoption of high price levels positively influence corporate profitability whereas low price levels show a negative effect and that, hence, pricing policies play a critical role (De Toni et al., 2017). There has been investigation of further dependencies, and findings support the superiority of value-based pricing independent from macro factors such as firm size, geography or industry (Liozu & Hinterhuber, 2013).

3.4 The value-based pricing paradox: the acceptance in practice

Despite significant research findings, value-based pricing is yet not commonly established in practice, whereas cost- and competition-based pricing is prevalent (Hinterhuber & Liozu, 2014; Liozu, 2017). For example, most firms do not leverage favorable environmental conditions but rather align pricing with competitors even though another strategy would be more profitable (Carricano, 2014; Pohland & Kesgin, 2018). Also, a study in the B2C market of washing machines found evidence that actual prices deviate from optimal value-based prices (Codini et al., 2012). This phenomenon could be explained by the accessibility of data sources on which price setting depends on. Whereas data on product cost and competition prices are often available, customer value is more difficult to assess, and thus a value-based pricing strategy may not be an intuitive approach to follow, neither the easiest to implement consistently. Hinterhuber (2008) identifies the challenge of value quantification—identifying the value of a product for the customer—as the main obstacle, followed by the communication of this value—helping the customer to understand the value of the product.

Nevertheless, practitioners agree on the positive effect of a value-based pricing strategy on firm's profitability. This indicates that it is not a matter of acceptance, but rather of implementation, which has been confirmed by a recent large scale survey with >100 pricing professionals in North America, in which Liozu (2017) finds strong agreement by practitioners that value-based pricing impacts profitability but that it also requires significant change in the organization.

Similar investigations on the acceptance of value-based pricing have been conducted in other industries. Pasura & Ryals (2005) analyzed the state of pricing strategies in the information and communication technology (ICT) sector based on qualitative interviews, finding cost-plus pricing as predominant pricing strategy and customer value playing a minor role—causing underpricing in the industry. Underlying obstacles are identified to be the non-involvement of end customers and the lack of understanding drivers of customer value, putting too much focus on distributors, despite the finding that ICT companies have structured pricing processes with finance and marketing involved. An positive exception is found in the B2C industry of professional sports, where a study found that the majority of teams have already adopted value-based pricing for their game tickets—in particular, a dynamic pricing approach (Huefner, 2017).

3.5 Barriers to the implementation of value-based pricing

There are multiple studies which identify barriers to value-based pricing in two sequential steps: first, in the decision-making; i.e., barriers related to initial awareness, openness and understanding to proactively decide on following value-based pricing. Second, in the execution: i.e., barriers related to required capabilities to execute value-based pricing. In both steps, individual or organizational capabilities are named to be major hurdles of value-based pricing (e.g., Kienzler, 2017, 2018; Töytäri, Keränen, & Rajala, 2017). In the execution step, value quantification is a major hurdle (Liozu, 2017; Töytäri et al., 2017).

Table 3: Barriers to implementation of value-based pricing

Study	Category of barrier (process step)	Identified barriers	Insights / contribution
(Kienzler, 2018)	Mindset & capabilities (decision-making)	Cognitive biases of pricing managers -external lack of control -price herding -fixed-pie bias -ambiguity aversion -egocentric fairness bias	Developing 5 propositions on the effects of psychological challenges regarding value-based pricing, extending prior literature on organizational challenges
(Kienzler, 2017)	Mindset & capabilities (decision-making)	Personality traits	Conscientiousness and openness to experience are found to be positively related to value-based pricing.
(Liozu, 2017)	Value assessment & value capture (execution)	e.g., -value quantification (value drivers, customer or market segmentation) -competitor analysis (identification of pricing levels/reference value) -value communication	Only 23% of respondents agreed to value communication as a difficulty, in contrast to other studies, where it is highlighted as a major hurdle
(Töytäri et al., 2015, 2017)	Mindset & capabilities	-understanding & influencing customer value (e.g., capabilities to	Dividing barriers into organizational, external, and internal level

	(decision-making); Value assessment & value capture (execution)	conduct customer value analysis); -value quantification and communication (e.g., due to lack of access to data); -value capturing (e.g., due to value at risk)	Identifying solutions to overcome these obstacles, e.g., systematic development of value-based pricing capabilities
(Liozu, Hinterhuber, Boland, et al., 2012)	Mindset & capabilities (decision-making)	Misinterpretation of the value-based pricing or the customer value concept	Firms that show consistent understanding are also more likely to apply value-based pricing. The authors highlight the importance of pricing champions for organizations
(Hinterhuber, 2008; Hinterhuber & Bertini, 2011)	Mindset & capabilities (decision-making); Value assessment & value capture (execution)	-value quantification -value communication -market segmentation -sales force management -top management support	Identifying solution ideas to overcome the identified barriers, e.g., -value quantification (expert interviews, focus groups, conjoint analysis, value-in-use assessment, importance ratings) -value communication (product features, customer benefits) and -sales force management (discount authority levels, incentives, trainings, monitoring)

We categorized the barriers related to the initial step as barriers due to *mindset & capabilities (decision-making)*. Such barriers range from individual, personal capabilities at the execution level—such as personality traits or cognitive barriers of pricing managers (Kienzler, 2017, 2018)—to resources at the management level—such as top management support and the enforcement of the sales force (Hinterhuber, 2008; Hinterhuber & Bertini, 2011). Another barrier is the understanding of the value-based pricing concept (Liozu, Hinterhuber, Boland, et al., 2012).

We refer to the barriers in the second step as barriers due to *value assessment and value capture (execution)*. The major barrier in this step is related to the core element of value quantification (Liozu, 2017). Moreover, the communication of value to the customer is

found to be a hurdle in the overall process to capture the value created (Töytäri et al., 2015, 2017). Prior findings on the barriers to the implementation of value-based pricing are synthesized in Table 3.

3.6 Success factors for the operationalization of value-based pricing

A number of studies on value-based pricing deals with price decision frameworks, pricing processes and the importance of organizational capabilities. This stream is mainly related to the first step of implementing value-based pricing: the decision-making. Prior studies describe core requirements of successful transformation from cost- or competitor-based pricing to value-based pricing or provide frameworks to enable organizations to conduct this step.

3.6.1.1 Price decision frameworks and pricing processes

Several studies have developed conceptual frameworks or process blueprints to enable organizations to transform their pricing towards a value-based pricing strategy. A firm's pricing orientation is interlinked with decision-making processes and firm capabilities in different ways (Liozu & Hinterhuber, 2012, 2013). Thus, when implementing value-based pricing initially, established structures are likely to require change.

Such pricing decision frameworks for value-based pricing have been proposed in two ways: either on a broad, inclusive perspective combining elements from customer analysis with cost and competitor analysis and on a narrower, black-and-white perspective, solely focusing on the element customer analysis. Hinterhuber (2004) suggests that a new product price decision framework should combine the elements, claiming that value-based pricing is three-fold and following the strategic triangle introduced by Ohmae (1982): including not only the customer value dimension (customer perspective), but also the company dimension (cost perspective), and the market dimension (competitor perspective). When transferring from solely cost or competitor pricing to including value-based pricing, the difficulty of quantifying value can be significant, so that firms often develop and design high value products but may not be able to correctly assess and communicate created value to customers (Hinterhuber, 2004; Reichheld & Teal, 1996). In this case, not neglecting cost and competitors even when implementing a value-based pricing strategy is recommended (Amaral & Guerreiro, 2019; Guerreiro & Amaral, 2018; Ren et al., 2020; Vujicic-tomic & Klaric, 2019).

In contrast, other authors claim that a narrow focus on the customer perspective is required for value-based pricing, suggesting pricing processes around the customer analysis (Raja et al., 2020), identifying it as one of the major obstacles when implementing value-based pricing (Töytäri et al., 2015, 2017), or illustrating how to operationalize it in practice (Bernstein & Macias, 2002; Stoppel & Roth, 2017). For example, Stoppel & Roth (2017) find that a customer-centric pricing approach goes beyond product-centric approach by not only quantifying value by product attributes versus competitive offerings but by focusing on actual value creation on the customer side, such as relational processes which is not captured in core product attributes. Their findings are based on a conceptualization of pricing schemes and a comparison of product- vs. customer-centered measurement units in the application of a value-based pricing strategy. In line with that, Bernstein & Macias (2002) found that customer value research is critical to define a price which meets customers perception of value, by conducting a case study at a global B2B company on the development and implementation of a new product pricing process.

Overall, research on value-based pricing processes has been conducted in a number of different contexts: models have been developed as cross-industry frameworks (Netseva-Porcheva, 2011) or specifically for industrial (procurement) solutions (Bonnemeier et al., 2010; Liinamaa et al., 2016; Provines, 2017), the IT industry (Reen et al., 2017), the online gaming industry (Ren et al., 2020), or the travel/hotel industry (Al-Shakhsheer et al., 2017; Pohland & Kesgin, 2018; Skugge, 2011).

3.6.1.2 Organizational capabilities required for value-based pricing

Other studies discuss the relevance of organizational capabilities. Pricing is seen as a strategic capability and a lever for competitive advantage (Dutta et al., 2002, 2003; Ingenbleek, 2014)—and value-based pricing expected to optimally capture value created in a firm (Ingenbleek, 2014). Thus, a number of studies has analyzed success factors for the adoption of a value-based pricing strategy, finding that a strong customer orientation is key (Ingenbleek et al., 2010), along with the development of the right pricing capabilities (Johansson et al., 2012; Liozu, 2017; Raja et al., 2020).

For example, commitment, training, and resources are crucial to successfully implement a new product pricing process (Bernstein & Macias, 2002). Bargaining power and the ability to create relational value is supporting the organization to capture a higher share

of the value created for the customer (Töytäri et al., 2015). Prior to that, the initial value assessment element is crucial (Johansson et al., 2017). It requires capabilities to conduct customer value analysis thoroughly and to leverage proactive marketing for value quantification and communication (Töytäri et al., 2015). The importance of individual capabilities vary dependent on the business context; for example, value communication is highly relevant in a pay-what-you-want pricing strategy, where it is critical to show the actual value of the product to the customers who decide on the price themselves (Chung, 2017).

Furthermore, the adoption of a new pricing process and building new capabilities is also linked to significant changes in organizations (Liozu, Hinterhuber, Perelli, et al., 2012; Liozu & Hinterhuber, 2012). An ongoing discussion in literature has aimed to find answers on how to build such capabilities and resources sustainably (Johansson et al., 2012; Liozu, Hinterhuber, Perelli, et al., 2012; Raja et al., 2020). Findings show that higher-level learning approaches can facilitate value quantification (Raja et al., 2020) and that the optimal allocation of central versus local pricing responsibilities in the value assessment process depends on the value creation character and the homogeneity of value definitions within and among customer market segments (Johansson et al., 2012)

In addition, supporting factors for the implementation of value-based pricing are found to be the prioritization by top management, an internal positive perception (Liozu, 2017), and a high level of inter-functional coordination (Ingenbleek et al., 2010). Overall, researchers agree that the implementation of value-based pricing requires a strong focus on the development and re-shaping of organizational capabilities.

3.7 Practice approaches for value quantification and communication

Prior authors aimed to address the value-based pricing paradox by developing practical concepts or approaches for the implementation of value-based pricing. We mapped their suggested approaches to the elements of our theoretical framework, see Figure 1. The approaches are linked to the two elements of the execution of value-based pricing—value quantification and value communication. The results are summarized in Table 4.

3.7.1 Approaches for value quantification

The majority of papers who develop practical approaches for elements of a value-based pricing strategy targets the element of value quantification. We found the consideration

of product attributes as one major approach to value-based pricing. In a recent study, Windisch (2019) appeals to innovate profit formulas and provides a three-step approach how to individualize product prices through disaggregation to product feature level in order to better meet the rise of modular offerings versus one-off projects. Disaggregation is also suggested in an approach which combines unit pricing with value-based pricing instead of solely quantifying value on the aggregated level (Johnston & Mora Cortez, 2018). The pricing based on product attributes may not be limited to a B2B context, as a study by Kim (2018) shows. Kim conducts a large-scale analysis on product attribute pricing for mobile phone features, ranking individual product feature importance in comparison across regions/markets which can be used by practitioners to set prices individually based on perceived value. Furthermore, Codini et al (2012) use conjoint analysis to calculate optimal value-based prices of washing machines to identify the deviations from actual sales prices. Another approach suggests modeling of discrete choice decision-making to implement value-based pricing for professional services (Wardell et al., 2008).

Table 4: Prior solutions in literature for elements of value-based pricing

Value-based pricing element	Paper	Practical approach
Value quantification / customer analysis	(Windisch, 2019)	Customer-targeted project-specific profit formulas
	(Kim, 2018)	Product attribute pricing
	(Johnston & Mora Cortez, 2018)	Unit value-based pricing
	(Codini et al., 2012)	Conjoint analysis
	(Wardell et al., 2008)	Discrete choice decision making
Value quantification / competitor analysis	(Dost & Geiger, 2017)	Multi-product price response maps
	(Gale & Swire, 2012)	Customer value mapping; product performance scorecard
	(Kijewski & Yoon, 1990)	Price-performance curves
Value communication	(Smith, 2020)	Concept of value-price exchange
	(Backhaus et al., 2010)	Recommendation system / software prototype

Other studies take a stronger focus on linking value-based pricing to competitor prices, for example by creating price maps on product portfolios in comparison to market prices (Dost & Geiger, 2017) or by leveraging traditional price-performance curves or product performance scorecards for competitor analysis (Gale & Swire, 2012; Kijewski & Yoon, 1990). Kijewski & Yoon suggest to identify and assess individual dimensions influencing the value of a product to a specific customer segment in a target market in order to define own product price based on relative product performance in that market, e.g. for a new product introduction.

3.7.2 Approaches for value communication

Concepts for value communication are also derived. Smith (2020) introduces value-based framing as a way to optimize value communication by choosing the best way to present the information for the customer decision. Smith's approach is based on the concept of value-price exchange, as illustrated in Figure 1. More tailored and specified is the approach suggested by Backhaus et al. (2010) who develop a software prototype for a recommendation system similar to the one implemented at Amazon or Spotify for a B2B machine market. Overall, training the sales force is found to be key for value communication (Farres, 2012).

4 Discussion

Our literature review highlights that value-based pricing is a desirable pricing strategy for profit optimization and that yet practitioners face major hurdles with its implementation. The barriers range from organizational reasons in the decision-making process to individual capabilities in the execution of value-based pricing. Prior studies have already provided approaches for both steps, the decision-making and the execution. However, research on the parts of value quantification and value communication is yet too scarce and would gain through studies conducted in varying business scenarios. In the following, we translate our findings from this study into a new business context.

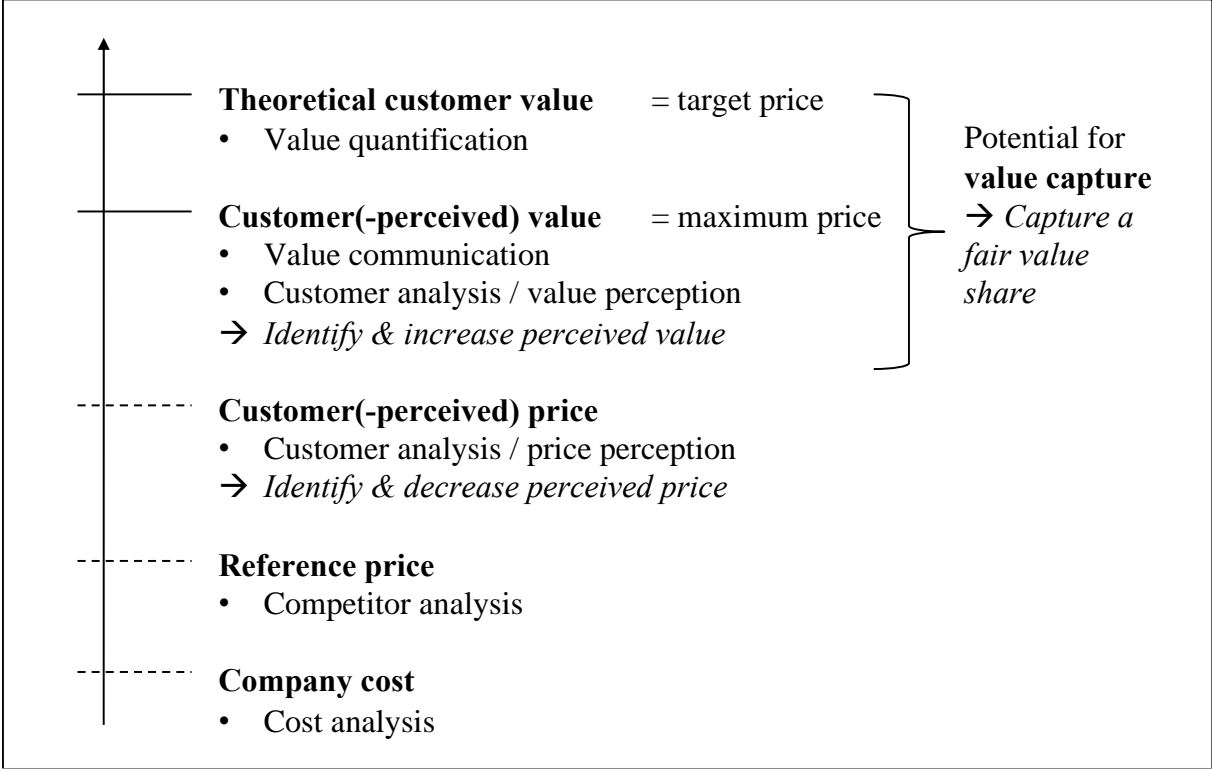
4.1 Implications for new businesses

New businesses—despite facing the challenge of limited resources and data availability—have one core advantage: they can shape their pricing organization and the required pricing capabilities from scratch. They neither have to run a large organizational transformation of mindsets nor to re-train their sales force from one

pricing strategy on another (Farres, 2012; Hinterhuber, 2008; Liozu, Hinterhuber, Perelli, et al., 2012). Thus, they can benefit from an early adoption of the mechanisms of value-based pricing. In the following, we outline a conceptual framework for new businesses how to operationalize the mechanisms of value-based pricing in practice, illustrated as the *price-value ladder*,

Figure 2, which leverages the elements of the theoretical framework, Figure 1, and which is inspired by approaches by Töytari et al. (2015) and Forbis & Metha (1981).

Figure 2: The “price-value-ladder”: A conceptual framework how to operationalize value-based pricing in practice



The *price-value-ladder* comprises five ascending price and value points that are relevant for pricing. Mainly, new businesses who aim for a value-based pricing strategy should focus on the two upper points, which are the *theoretical customer value* (TCV) and the *customer-perceived value* (CPV). Together they define the optimal target value-based price which could theoretically be achieved and the maximum that the customer would accept due to perception of value. The TCV should be quantified independent from elements linked to cost or competition: New businesses should leverage and transfer approaches of value quantification to assess TCV, e.g. the approaches summarized in

Table 4. In a second step, they should leverage levers of value communication to influence the CPV, so that it comes close as possible to the TCV in order to capture the customer value created (Backhaus et al., 2010; Hinterhuber, 2008; Raja et al., 2020; Smith, 2020; Töytäri et al., 2015; Windisch, 2019). Both measures support to increase the CPV: first, by understanding and quantifying the upper floor—which is the TCV—and, second, by enabling the customer to fully perceive the value as well (Raja et al., 2020; Smith, 2020). Value quantification and communication can be facilitated by following a co-creation process with the customer (Ingenbleek, 2014; Stoppel & Roth, 2017). Overall, the goal is to move the CPV towards the optimal target value-based price, the TCV, on top of the *price-value ladder*.

The three lower price points are shown for completeness, but would not necessarily need to be part of a pure value-based pricing strategy. In addition, their importance of consideration depends on the actual values. For example, the *customer-perceived price* should not be higher as the *customer-perceived value* in order to enable a purchase. Furthermore, when customers have a strong *reference price*, new businesses should take *customer-perceived price* into account, as the price perception is often influenced by competitor prices (Dost & Geiger, 2017; Drolet, 2004; Forbis & Mehta, 1981; Gale & Swire, 2012; Kijewski & Yoon, 1990). The need to support a better understanding of influences on the customer's price and value perception depends on the individual market scenario. Reference prices should not be considered in a first step to avoid wrong anchors in the initial value quantification of TCV. Finally, to check on profit margin—e.g., if required by firm strategy—a cost analysis can serve as a sanity check to ensure that target profit margins are achieved (Ingenbleek et al., 2013).

The outlined approach was derived based on key findings from our structured literature review, summarized in Figure 1, Table 3 and Table 4. We synthesized and translated these findings into a conceptual framework for new businesses, the suggested *price-value-ladder*.

4.2 Contributions, limitation and future research

Our study makes two contributions to the literature. First, our structured review of value-based pricing literature is a major contribution, following prior authors (Ingenbleek, 2007; Liozu, 2017). We synthesized findings from relevant papers on this topic published in peer-reviews marketing and management journals to answer the question

which mechanisms are unique to value-based pricing and how it can be operationalized in practice. We aggregated prior findings into a theoretical framework describing the core mechanisms of value-based pricing (e.g., Forbis & Mehta, 1981; Raja et al., 2020; Smith, 2020; Töytäri et al., 2015). In addition, we outlined existing barriers to its implementation and assessed prior solutions and success factors to overcome these barriers (e.g., Dost & Geiger, 2017; Dutta et al., 2003; Hinterhuber, 2008; Stoppel & Roth, 2017).

Second, we translated the theoretical framework which synthesized concepts from prior literature into a conceptual framework, the *price-value ladder*, and described how new businesses should operationalize the mechanisms of value-based pricing in practice. The conceptual framework is not restricted in its use by new businesses, however, we expect them to face less hurdles caused by established organizational structures and habits, i.e., no need for an organizational transformation. Thus, we encourage new businesses to use the conceptual framework to develop their value-based pricing strategy.

Overall, our structured literature review and the derived theoretical and conceptual framework inform about the current state of research on value-based pricing and supports practitioners to develop their value-based pricing strategy. However, our research has limitations and offers opportunities for future research: As major barriers to the implementation of value-based pricing persist, we see a great opportunity and a high need for future research on practice approaches to enable the implementation of value-based pricing—in particular how to conduct value quantification and value communication. For example, which factors influence the customer-(perceived) value, and, thus, the price? How can such value factors be quantified? Does the customer-(perceived) value solely depend on product attributes? Moreover, future research could investigate the elements of value-based pricing in different contexts. For example, are the mechanisms different in offline versus online purchase situations?

5 Conclusion

Prior research has highlighted that traditional cost- or competition-based pricing strategies often lack a customer-orientation, hindering a focus on value creation in the first place and causing a gap between prices set and prices that customers are willing to pay. This is why researchers and practitioners agree that value-based pricing is a

superior strategy for creating and capturing customer value. Our structured literature review derived relevant insights on the mechanisms of value-based pricing for researchers and practitioners which we translated into a conceptual framework—the *price-value-ladder*—for new businesses seeking to operationalize value-based pricing. Furthermore, our findings outline a roadmap for future research addressing the value-based-pricing paradox, helping firms to overcome the barriers to the implementation of value-based pricing.

References

- Al-Shakhsheer, F. J., Habiballah, Moun A., Al-Ababneh, M. M., & Alhelalat, J. A. (2017). Improving Hotel Revenue through the Implementation of a Comprehensive Dynamic Pricing Strategy: A Conceptual Framework and Empirical Investigation of Jordanian Hotels. *Business Management Dynamics*, 7(06), 19–33. www.bmdynamics.com
- Amaral, J. V., & Guerreiro, R. (2019). Factors explaining a cost-based pricing essence. *Journal of Business and Industrial Marketing*, 34(8), 1850–1865. <https://doi.org/10.1108/JBIM-12-2018-0373>
- Backhaus, K., Becker, J., Beverungen, D., Frohs, M., Müller, O., & Weddeling, M. (2010). Incorporating willingness-to-pay data into online recommendations for value-added services. *18th European Conference on Information Systems, ECIS 2010*.
- Bernstein, J., & Macias, D. (2002). Engineering new-product success: The new-product pricing process at Emerson. *Industrial Marketing Management*, 31(1), 51–64. [https://doi.org/10.1016/S0019-8501\(00\)00116-4](https://doi.org/10.1016/S0019-8501(00)00116-4)
- Bonnemeier, S., Burianek, F., & Reichwald, R. (2010). Revenue models for integrated customer solutions: Concept and organizational implementation. *Journal of Revenue and Pricing Management*, 9(3), 228–238. <https://doi.org/10.1057/rpm.2010.7>
- Bowman, C., & Ambrosini, V. (2000). Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy. *British Journal of Management*, 11(1), 1–15. <https://doi.org/10.1111/1467-8551.00147>
- Carricano, M. (2014). Pricing myopia: Do leading companies capture the full value of their pricing strategies? *Management Decision*, 52(1), 159–178. <https://doi.org/10.1108/MD-03-2013-0184>
- Christopher, M., & Gattorna, J. (2005). Supply chain cost management and value-based pricing. *Industrial Marketing Management*, 34, 115–121. <https://doi.org/10.1016/j.indmarman.2004.07.016>
- Chung, J. Y. (2017). Price fairness and PWYW (pay what you want): A behavioral economics perspective. *Journal of Revenue and Pricing Management*, 16(1), 40–55. <https://doi.org/10.1057/s41272-017-0078-0>
- Codini, A., Saccani, N., & Sicco, A. (2012). The relationship between customer value and pricing strategies: an empirical test. *Journal of Product & Brand Management*, 21(7), 538–546. <https://doi.org/10.1108/10610421211276321>
- De Toni, D., Milan, G. S., Saciloto, E. B., & Larentis, F. (2017). Pricing strategies and levels and their impact on corporate profitability. *Revista de Administração*, 52(2), 120–133. <https://doi.org/10.1016/j.rausp.2016.12.004>
- Dost, F., & Geiger, I. (2017). Value-based pricing in competitive situations with the help of multi-product price response maps. *Journal of Business Research*, 76, 219–236. <https://doi.org/10.1016/j.jbusres.2017.01.004>
- Drolet, A. (2004). Anchoring Effects on Consumers' Willingness-to-Pay and Willingness-to-Accept. *Journal of Consumer Research*, 31(December), 681–690.

- Dutta, S., Bergen, M., Levy, D., Ritson, M., & Zbaracki, M. (2002). Pricing as a strategic capability. *MIT Sloan Management Review*, 43(3), 61–66.
- Dutta, S., Zbaracki, M. J., & Bergen, M. (2003). Pricing process as a capability: A resource-based perspective. *Strategic Management Journal*, 24(7), 615–630. <https://doi.org/10.1002/smj.323>
- Ekelund, R. (1970). Price Discrimination and Product Differentiation in Economic Theory: An Early Analysis. *The Quarterly Journal of Economics*, 84(2), 268–278.
- Farres, R. (2012). Optimal pricing models in B2B organizations. *Journal of Revenue and Pricing Management*, 11(1), 35–39. <https://doi.org/10.1057/rpm.2011.36>
- Forbis, J. L., & Mehta, N. T. (1981). Value-based strategies for industrial products. *Business Horizons*, 24(3), 32–42. [https://doi.org/10.1016/0007-6813\(81\)90125-7](https://doi.org/10.1016/0007-6813(81)90125-7)
- Gale, B. T., & Swire, D. J. (2012). Implementing strategic B2B pricing: Constructing value benchmarks. *Journal of Revenue and Pricing Management*, 11(1), 40–53. <https://doi.org/10.1057/rpm.2011.44>
- Grégoire, D. A., Corbett, A. C., & McMullen, J. S. (2011). The Cognitive Perspective in Entrepreneurship: An Agenda for Future Research. *Journal of Management Studies*, 48(6), 1443–1477. <https://doi.org/10.1111/j.1467-6486.2010.00922.x>
- Guerreiro, R., & Amaral, J. V. (2018). Cost-based price and value-based price: are they conflicting approaches? *Journal of Business and Industrial Marketing*, 33(3), 390–404. <https://doi.org/10.1108/JBIM-04-2016-0085>
- Hinterhuber, A. (2004). Towards value-based pricing - An integrative framework for decision making. *Industrial Marketing Management*, 33(8), 765–778. <https://doi.org/10.1016/j.indmarman.2003.10.006>
- Hinterhuber, A. (2008). Customer value-based pricing strategies: Why companies resist. *Journal of Business Strategy*, 29(4), 41–50. <https://doi.org/10.1108/02756660810887079>
- Hinterhuber, A. (2023). What every manager should know about pricing. *Journal of Business Strategy*. <https://doi.org/10.1108/JBS-11-2022-0192>
- Hinterhuber, A., & Bertini, M. (2011). Profiting When Customers Choose Value Over Price. *Business Strategy Review*, 22(1), 46–49. <https://doi.org/10.1111/j.1467-8616.2011.00727.x>
- Hinterhuber, A., & Liozu, S. M. (2014). Is innovation in pricing your next source of competitive advantage? *Business Horizons*, 57(3), 413–423. <https://doi.org/10.1016/j.bushor.2014.01.002>
- Huefner, R. J. (2017). Value-based pricing in professional sports. *Journal of Revenue and Pricing Management*, 16, 30–39. <https://doi.org/10.1057/s41272-016-0051-3>
- Ingenbleek, P. T. M. (2007). Value-informed pricing in its organizational context: Literature review, conceptual framework, and directions for future research. *Journal of Product & Brand Management*, 16(7), 441–458. <https://doi.org/10.1108/10610420710834904>
- Ingenbleek, P. T. M. (2014). The theoretical foundations of value-informed pricing in the service-dominant logic of marketing. *Management Decision*, 52(1), 33–53.

<https://doi.org/10.1108/MD-03-2013-0128>

- Ingenbleek, P. T. M., Debruyne, M., Frambach, R. T., & Verhallen, T. M. M. (2003). Successful new product pricing practices: A contingency approach. *Marketing Letters*, *14*(4), 289–305. <https://doi.org/10.1023/B:MARK.0000012473.92160.3d>
- Ingenbleek, P. T. M., Frambach, R. T., & Verhallen, T. M. M. (2010). The role of value-informed pricing in market-oriented product innovation management. *Journal of Product Innovation Management*, *27*(7), 1032–1046. <https://doi.org/10.1111/j.1540-5885.2010.00769.x>
- Ingenbleek, P. T. M., Frambach, R. T., & Verhallen, T. M. M. (2013). Best practices for new product pricing: Impact on market performance and price level under different conditions. *Journal of Product Innovation Management*, *30*(3), 560–573. <https://doi.org/10.1111/jpim.12008>
- Johansson, M., Hallberg, N., Hinterhuber, A., Zbaracki, M., & Liozu, S. (2012). Pricing strategies and pricing capabilities. *Journal of Revenue and Pricing Management*, *11*(1), 4–11. <https://doi.org/10.1057/rpm.2011.42>
- Johansson, M., Olsson, G., & Andersson, L. (2017). Value creation character and value assessment responsibility. *Journal of Revenue and Pricing Management*, *16*(1), 56–75. <https://doi.org/10.1057/s41272-016-0052-2>
- Johnston, W. J., & Mora Cortez, R. (2018). Unit pricing and its implications for B2B marketing research. *Industrial Marketing Management*, *69*(February), 32–39. <https://doi.org/10.1016/j.indmarman.2018.01.026>
- Kienzler, M. (2017). Does managerial personality influence pricing practices under uncertainty? *Journal of Product and Brand Management*, *26*(7), 771–784. <https://doi.org/10.1108/JPBM-11-2016-1352>
- Kienzler, M. (2018). Value-based pricing and cognitive biases: An overview for business markets. *Industrial Marketing Management*, *68*(March 2017), 86–94. <https://doi.org/10.1016/j.indmarman.2017.09.028>
- Kijewski, V., & Yoon, E. (1990). Market-Based Pricing: Beyond Price-Performance Curves. *Industrial Marketing Management*, *19*, 11–19.
- Kim, J. S. (2018). Measuring willingness-to-pay for mobile phone features: a multi-region study. *Journal of Research in Marketing and Entrepreneurship*, *20*(2), 189–213. <https://doi.org/10.1108/JRME-02-2016-0003>
- Kortge, G. D., & Okonkwo, P. A. (1993). Perceived value approach to pricing. *Industrial Marketing Management*, *22*(2), 133–140. [https://doi.org/10.1016/0019-8501\(93\)90039-A](https://doi.org/10.1016/0019-8501(93)90039-A)
- Liinamaa, J., Viljanen, M., Hurmerinta, A., Ivanova-Gongne, M., Luotola, H., & Gustafsson, M. (2016). Performance-based and functional contracting in value-based solution selling. *Industrial Marketing Management*, *59*, 37–49. <https://doi.org/10.1016/j.indmarman.2016.05.032>
- Liozu, S. M. (2017). State of value-based-pricing survey: Perceptions, challenges, and impact. *Journal of Revenue and Pricing Management*, *16*(1), 18–29. <https://doi.org/10.1057/s41272-016-0059-8>

- Liozu, S. M. (2021). The adoption of pricing from an organizational perspective and its impact on relative firm performance. *Journal of Revenue and Pricing Management*, 20(4), 390–402. <https://doi.org/10.1057/s41272-021-00303-4>
- Liozu, S. M., & Hinterhuber, A. (2012). Industrial product pricing: A value-based approach. *Journal of Business Strategy*, 33(4), 28–39. <https://doi.org/10.1108/02756661211242681>
- Liozu, S. M., & Hinterhuber, A. (2013). Pricing orientation, pricing capabilities, and firm performance. *Management Decision*, 51(3), 594–614. <https://doi.org/10.1108/00251741311309670>
- Liozu, S. M., Hinterhuber, A., Boland, R., & Perelli, S. (2012). The conceptualization of value-based pricing in industrial firms. *Journal of Revenue and Pricing Management*, 11(1), 12–34. <https://doi.org/10.1057/rpm.2011.34>
- Liozu, S. M., Hinterhuber, A., Perelli, S., & Boland, R. (2012). Mindful pricing: Transforming organizations through value-based pricing. *Journal of Strategic Marketing*, 20, 1–13. <https://doi.org/10.1080/0965254X.2011.643916>
- Netseva-Porcheva, T. (2011). Value-based pricing: A success factor in the competitive struggle. *Marketing*, 42(4), 227–236. <https://doi.org/10.5937/markt1104227n>
- Ohmae, K. (1982). The strategic triangle: A new perspective on business unit strategy. *European Management Journal*, 1(1), 38–48. [https://doi.org/10.1016/S0263-2373\(82\)80016-9](https://doi.org/10.1016/S0263-2373(82)80016-9)
- Parmigiani, A., & King, E. (2019). Successfully Proposing and Composing Review Papers. *Journal of Management*, 45(8), 3083–3090.
- Pasura, A., & Ryals, L. (2005). Pricing for value in ICT. *Journal of Targeting, Measurement and Analysis for Marketing*, 14(1), 47–61. <https://doi.org/10.1057/palgrave.jt.5740169>
- Piercy, N. F., Cravens, D. W., & Lane, N. (2010). Thinking strategically about pricing decisions. *Journal of Business Strategy*, 31(5), 38–48. <https://doi.org/10.1108/02756661011076309>
- Pohland, L., & Kesgin, M. (2018). Pricing determinants in hotels: The case of luxury, upscale, and mid-scale price segments. *Journal of Revenue and Pricing Management*, 17(4), 218–230. <https://doi.org/10.1057/s41272-017-0133-x>
- Provines, C. D. (2017). Value-based pricing meets twenty-first century procurement. *Journal of Revenue and Pricing Management*, 16(1), 4–17. <https://doi.org/10.1057/s41272-017-0080-6>
- Raja, J. Z., Frandsen, T., Kowalkowski, C., & Jarmatz, M. (2020). Learning to discover value: Value-based pricing and selling capabilities for services and solutions. *Journal of Business Research*, 114, 142–159. <https://doi.org/10.1016/j.jbusres.2020.03.026>
- Reen, N., Hellström, M., Wikström, K., & Perminova-Harikoski, O. (2017). Towards value-driven strategies in pricing IT solutions. *Journal of Revenue and Pricing Management*, 16(1), 99–105. <https://doi.org/10.1057/s41272-017-0079-z>
- Reichheld, F. F., & Teal, T. (1996). The loyalty effect: The hidden force behind growth, profits and lasting. *Harvard Business School Publications*, Boston.

- Ren, Q., Rong, K., Lu, C., Liu, G., & Ross, M. (2020). Value-informed pricing for virtual digital products: Evidence from Chinese MMORPG industry. *International Journal of Market Research*, 62(3), 350–368. <https://doi.org/10.1177/1470785318799909>
- Simon, H. A. (1996). *The sciences of the artificial* (3rd ed.). MIT Press.
- Skugge, G. (2011). The future of pricing: Outside-in. *Journal of Revenue and Pricing Management*, 10(4), 392–395. <https://doi.org/10.1057/rpm.2011.13>
- Smith, G. E. (2020). Disruptive framing in value creation and price setting: Transforming value with strategic frames of reference. *Business Horizons*, 63(4), 481–491. <https://doi.org/10.1016/j.bushor.2020.03.006>
- Stoppel, E., & Roth, S. (2017). The conceptualization of pricing schemes: From product-centric to customer-centric value approaches. *Journal of Revenue and Pricing Management*, 16(1), 76–90. <https://doi.org/10.1057/s41272-016-0053-1>
- Töytäri, P., Keränen, J., & Rajala, R. (2017). Barriers to implementing value-based pricing in industrial markets: A micro-foundations perspective. *Journal of Business Research*, 76, 237–246. <https://doi.org/10.1016/j.jbusres.2016.04.183>
- Töytäri, P., Rajala, R., & Alejandro, T. B. (2015). Organizational and institutional barriers to value-based pricing in industrial relationships. *Industrial Marketing Management*, 47, 53–64. <https://doi.org/10.1016/j.indmarman.2015.02.005>
- Vom Brocke, J. (2009). Design Principles for Reference Modeling: Reusing Information Models by Means of Aggregation, Specialisation, Instantiation, and Analogy. *Innovations in Information Systems Modeling: Methods and Best Practices*. <https://doi.org/10.4018/978-1-60566-278-7.ch014>
- Vujicic-tomic, B., & Klaric, M. (2019). Meeting Halfway — Comparison Between Cost-Based and Demand-Based Pricing Methods. *UTMS Journal of Economics*, 10(2), 215–225.
- Wardell, C. L., Wynter, L., & Helander, M. (2008). Capacity and value based pricing model for professional services. *Journal of Revenue and Pricing Management*, 7(4), 326–340. <https://doi.org/10.1057/rpm.2008.18>
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), xiii–xxiii. <https://doi.org/10.1.1.104.6570>
- Windisch, G. (2019). Better profit formulas for new business models: capital goods industries in a fragmented market. *Journal of Business Strategy*, 41(2), 29–38. <https://doi.org/10.1108/JBS-09-2018-0159>
- Yip, N. K. T. (2012). Making qualitative decisions from quantitative cues: Understanding the customers' willingness to pay. *Journal of Revenue and Pricing Management*, 11(5), 562–566. <https://doi.org/10.1057/rpm.2012.18>