Pricing in Tempo: A Contextualized IS Taxonomy of Pricing Strategies for Dynamic Markets

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Abstract. As organizations deploy increasingly autonomous IS for pricing ranging from rule-based engines to AI-driven optimization systems, the absence of a theoretically grounded classification framework impedes both the configuration of these systems and their strategic alignment. Existing pricing strategy taxonomies, developed for stable market environments, fail to account for the technological, temporal, and contextual dimensions that characterize IS-mediated pricing in dynamic markets. This research addresses that gap by developing a contextualized taxonomy of pricing strategies as a Design Science Research artifact, following the taxonomy development method of Nickerson et al. [51] as extended by Kundisch et al. [35]. Grounded in a structured literature review of 473 peer-reviewed publications, the taxonomy comprises 52 characteristics across 16 dimensions, organized along four meta-dimensions: Market & Competitive Environment, Strategic Requirements, Customer & Demand, and Operationalization. Evaluation against 50 real-world case studies reveals a critical IS-strategy misalignment: while 44 of 50 cases adopt dynamic pricing strategies, only 9 leverage AI or machine learning for execution, with the majority relying on tool-based optimization. This finding demonstrates the diagnostic value of the taxonomy's Analytical Maturity dimension in surfacing the gap between strategic pricing intent and actual IS capability. The resulting artifact enables organizations to configure pricing strategies in alignment with their technological maturity and strategic context and provides IS researchers with a reusable instrument for classifying and comparing pricing system deployments across sectors.

Keywords: Pricing Strategies, Taxonomy, Design Science Research, Dynamic Pricing, Organizational Decision Support.

1 Introduction

Digital transformation has fundamentally reconfigured how organizations set, adjust, and govern prices. What was once a periodic managerial decision has become a continuous, system-mediated process: pricing engines, revenue management platforms, and AI-driven optimization tools now execute thousands of price adjustments per day, often without direct human intervention [58]. Yet despite this technological sophistication, organizations consistently underperform in pricing [27]. The root cause is not a lack of IS capability but a lack of conceptual structure. Organizations deploy advanced pricing

systems without a theoretically grounded framework to configure, evaluate, and align those systems with their strategic context. The result is a persistent and well-documented gap between what pricing IS can do and what organizations actually achieve with it.

This gap has a structural explanation. The IS and management literature offers several taxonomies of pricing strategies, most notably Tellis [61], who proposed a two-dimensional classification based on customer and firm characteristics, and Noble and Gruca [52], who extended this to industrial markets. Bolton and Shankar [5] incorporated channel integration as a technological dimension, and Izaret and Sinha [30] attempted to bridge digital pricing tools with classical strategy paradigms. However, these frameworks share a common limitation: they were designed for static or near-static market environments and treat pricing as an isolated decision rather than as a configurable IS artifact embedded in a dynamic organizational and market context. None accounts for the interplay of temporal dynamics (e.g., intraday demand variance), analytical maturity levels, data availability constraints, or the degree of IS-mediation in pricing execution. As a result, IS researchers lack a classification instrument that reflects how pricing strategies actually operate in digitally transformed organizations, and practitioners lack a configuration tool that maps strategic intent to IS capability. To address this gap, this study is guided by the following research question:

RQ: How can pricing strategies be characterized according to their contextual, strategic, demand-side, and operational dimensions

We address this question by developing a contextualized taxonomy of pricing strategies as a DSR artifact [26], following the taxonomy development method of Nickerson et al. [51] as extended by Kundisch et al. [35]. Our taxonomy is grounded in a structured literature review of 473 peer-reviewed publications and organized along four meta-dimensions: Market & Competitive Environment, Strategic Requirements, Customer & Demand, and Operationalization; comprising 16 dimensions and 52 characteristics. Critically, the Operationalization meta-dimension explicitly captures the analytical maturity of pricing IS, ranging from intuition-based pricing to fully autonomous AI-driven systems, thereby connecting strategic pricing classification directly to IS capability assessment.

This research makes two contributions. Theoretically, it introduces a context-sensitive classification framework that extends prior taxonomies by incorporating technological, temporal, and demand-side dimensions absent from existing work. From an IS design perspective, the taxonomy constitutes a reusable artifact that enables systematic configuration and comparative evaluation of pricing strategies across organizational and sectoral contexts.

2 Theoretical Background

The price is the most efficient of all possible profit drivers [24], defined as the monetary units a consumer exchanges for a single unit of a product or service [58]. Unlike cost reduction or volume growth, price adjustments translate directly and immediately into margin. This primacy is reflected in the structure of the marketing mix: while product,

promotion, and placement generate costs, price alone generates revenue [58]. The price of a product is not, however, an isolated construct. It must always be understood in relation to a market [64]. Classical market theory assumes homogeneous goods, transparent information, and rational actors; conditions that do not exist in practice. Real markets are imperfect, and temporal shifts within them render theoretical behavioural models increasingly unreliable [50]. Addressing this complexity requires an overarching activity: price management, understood as the sum of a provider's decisions to set prices in line with corporate objectives [59]. Across both price management and the synonymous concept of pricing policy, which encompasses analysis, planning, and rule application [15, 47, 64], strategic and operative decisions are inseparably linked.

2.1 Foundations of Pricing Strategies

A pricing strategy is the deliberate configuration of pricing decisions in response to market conditions, organizational objectives, and customer characteristics [36]. It constitutes the strategic layer of price management, translating normative goals into concrete price-setting logic. Within the marketing mix, price occupies a unique position: it is simultaneously the most flexible and the most consequential instrument available to managers [27]. Three foundational orientations structure the pricing strategy space: cost-driven, value-driven, and competition-driven, each reflecting a distinct theoretical model of how value is created and captured [58]. Value-based pricing, in particular, positions the customer's willingness-to-pay as the primary pricing signal, recognizing that perceived value ultimately determines achievable price levels. Despite the theoretical superiority of value-based approaches, empirical evidence consistently shows that managers default to cost-plus heuristics, reflecting a persistent gap between pricing science and managerial practice [27].

2.2 Overview of Traditional and Contemporary Pricing Strategies

Traditional pricing strategies, including cost-plus, penetration, and skimming, were developed for stable, low-information market environments. They share a common assumption: that prices are set periodically, adjusted infrequently, and applied uniformly across customer segments. The digital transformation of commerce has fundamentally challenged these assumptions. Dynamic pricing, which adjusts prices in real-time in response to demand signals, competitor behaviour, and inventory levels, has become prevalent across sectors from aviation and hospitality to e-commerce and energy [1, 13, 57]. Platform-based and subscription pricing models have further expanded the strategic space, enabling firms to monetize access, usage, and network effects rather than discrete product transactions. Contemporary pricing is therefore no longer a periodic decision but a continuous, IS-mediated process that demands a classification framework capable of reflecting this complexity.

2.3 Taxonomies and Frameworks in Pricing Literature

Systematic classification of pricing strategies has a limited but foundational literature. Tellis [61] proposed the first formal taxonomy, organizing strategies along two dimensions, customer and firm characteristics, yielding nine categories. While seminal, the framework was developed for static markets and predates digital commerce entirely. Noble and Gruca [52] extended Tellis's taxonomy to industrial goods pricing, introducing a two-level framework that nonetheless remains sector-specific and non-transferable. Bolton and Shankar [5] incorporated channel integration as a technological dimension, acknowledging the growing role of IS in pricing execution, but without systematically modelling IS capability levels. Most recently, Izaret and Sinha [30] proposed an integrative framework bridging digital pricing tools with classic paradigms, though it remains abstract and lacks empirical grounding. Collectively, these frameworks share three limitations: they treat pricing strategies as context-independent, they neglect the analytical maturity of the IS infrastructure executing the strategy, and none accounts for temporal dynamics such as intraday demand variance [60]. As a result, IS researchers lack a classification instrument suited to digitally transformed organizations, and practitioners lack a configuration tool that maps strategic intent to IS capability.

2.4 Pricing Strategies for Perishable and Dynamic Environments

Perishable goods markets represent the most demanding context for pricing strategy design, as they compress the strategy-execution cycle to intraday or even real-time intervals. Products with short or fixed lifecycles e.g., fresh food, airline seats, hotel rooms, require markdown strategies timed to residual demand, where delayed execution destroys value irreversibly [49]. Tang et al. [60] demonstrate that time-based pricing in grocery retail must account for congestion externalities and competitive equilibria, illustrating how context-specific factors render generic frameworks inadequate. Dynamic pricing of perishable goods also intersects with sustainability objectives: price reductions near expiration dates function simultaneously as waste-reduction mechanisms and as signals of corporate responsibility, positively influencing willingness-to-pay among sustainability-conscious consumers [56, 57]. These dynamics representing as temporal urgency, demand stochasticity, sustainability objectives, and real-time IS execution, are precisely the contextual factors that existing taxonomies fail to capture, and that motivate the framework developed in this paper.

3 Methodology

We develop our taxonomy following the method proposed by Nickerson et al. [51], extended by the recommendations of Kundisch et al. [35], which represents the de facto standard for taxonomy development in IS research [35, 53]. Following Kundisch et al. [35], we precede the taxonomy development with three preparatory steps: defining the observed phenomenon, identifying the target group, and specifying the intended purpose. The observed phenomenon encompasses pricing strategies as part of the price management process, both in literature and in practice. The taxonomy targets

managerial decision-makers responsible for pricing, as well as IS researchers and pricing software developers seeking a systematic classification basis. Its purpose is twofold: to support strategy selection tailored to a company's context, and to systematize pricing strategy knowledge for classification and comparison.

We define the meta-characteristic as: the configuration of pricing strategies that organizations use to achieve their normative goals in dynamic market environments. A taxonomy consists of n dimensions, each with at least two characteristics [51]. We additionally employ meta-dimensions following Kundisch et al. [35] to reduce complexity. While Nickerson et al. require mutually exclusive and collectively exhaustive characteristics, we follow Kundisch et al. [35] in allowing justified deviations where characteristics overlap or remain unconfirmed across iterations. The resulting taxonomy satisfies five quality criteria: conciseness, robustness, comprehensiveness, extensibility, and explanatory power[51, 63].

For the iterative taxonomy development, we conducted a structured literature review following Webster and Watson [65] and vom Brocke et al. [6]. Our search, focused on high-quality VHB-ranked publications [34], yielded 2,529 initial results. After removing 968 duplicates and applying a two-stage title-abstract screening [33] based on three inclusion criteria [3], the final literature set comprised 473 articles. These were grouped into five subsets following Kundisch et al. [35], covering both the empirical-to-conceptual and conceptual-to-empirical paths. One of these subsets containing 50 use cases was later used to evaluate the taxonomy and not considered during the development. The development process ran for six iterations until no new dimensions emerged, as the termination criterion proposed by Nickerson et al. [51].

4 A Taxonomy of Pricing Strategies

The resulting taxonomy consists of 52 characteristics across 16 dimensions, organized along four meta-dimensions: *Market & Competitive Environment, Strategic Requirements, Customer & Demand, and Operationalization*. Figure 1 presents the complete taxonomy; bracketed numbers indicate the count of case study articles in which each characteristic was identified.

Market & Competitive Environment. This meta-dimension captures the external, largely uncontrollable factors that condition pricing decisions and determine the contextual boundaries within which a strategy operates. Four dimensions configure it: *Industry Classification, Market Focus, Competitive Situation,* and *Geographic Scope*.

Industry Classification is treated as a foundational dimension because the same pricing strategy requires contextual adaptation when transferred across sectors, with even minor adjustments implying changes across multiple other dimensions, effectively constituting a distinct strategy configuration. Manufacturing and Production is characterised by value-adding tasks centred on the physical transformation and fabrication of goods. Companies operate in areas such as mechanical engineering, food production and electronics manufacturing [8].

Fig. 1. Taxonomy of Pricing Strategies

	(Meta) Dimensions	Characteristics					m/n
Market & Competitive Environment	**Industry Classification**	Manufacturing & Production (6)	Energy & Logistics (6)	Retail & Consumer Goods (18)	Technology, Digital & Professional Services (19)	Finance & Insurance (1)	m
	Market Focus	B2B (9)	B2C (36)	Duality/unspecified(5)			m
	Competitive Situation	Oligopoly (33)	Polypoly (17)				m
	Geographic Scope	Location-based (20)	Global (30)				m
Strategic Requirements	**Orientation**	Cost-driven (8)	Value-driven (42)	Competition-driven (41)			n
	Objective	Profitability (49)	Market Share (27)	Innovation (3)	Customer Retention & Brand Image (36)	Sustainability & CSR (3)	(Product) Quality (8)	n
	Vertical Power Distribution	Price Leadership (18)	Price Autonomy (18)	Price Following (14)			m
	Lifecylce Perspective	Market Entry (1)	Product Life Cycle (6)	Life Cycle Agnostic (43)			m
Customer & Demand	**Customer Segment**	Premium (18)	Mass Market (39)	Public Sector (1)			n
	Behavioral Assumption	Behavioral Pricing (18)	Strategic Actor (14)	Myopic Actor (5)	Integrative (13)		m
	Demand	Deterministic (4)	Stochastic (10)				m
	Involvement	Participative (5)	Directive (45)				m
Operationalization	**Price Adjustment Pattern**	Dynamic (44)	Scenario-based (5)	Static (1)			m
	Portfolio Scope	Single Product / Service (35)	Bundle, Cross-Sell, Partial Portfolio (10)	Full Range / Complete Portfolio (5)			m
	Distribution Channel	Omni-Channel (11)	Multi-Channel (15)	Purely Online (17)	Purely Offline (7)		m
	Analytical Maturity	AI and Machine Learning (9)	Tool-based Optimization (34)	Analog-algorithmic Optimization (6)	Intuitive (1)		m

Retail and Consumer Goods focus on the distribution and sale of finished goods to end customers, without engaging in manufacturing or substantial processing [18, 66, 69]. The Energy and Logistics sector is primarily concerned with the provision of transport infrastructure and the physical or digital movement of goods and resources e.g., delivery services [39, 44], or the management and pricing of smart energy grids and their supply [7, 43]. The Technology, Digital & Professional Services sector encompasses the commercialization of both digital products and intangible service offerings like software artefacts, platform services, and cloud-based solutions [36, 68, 71]; or consulting, real estate management, hospitality, airline ticketing, and public transport [54]. Finally, the Finance and Insurance sector completes the Industry Classification dimension.

The second dimension, *Market Focus*, concerns the transactional context within which a pricing strategy is applied. A distinction is made between Business-to-Business (B2B) transactions, referring to direct commercial exchanges between companies, such as manufacturers selling to wholesalers or wholesalers supplying retailers [31, 32, 72], and Business-to-Consumer (B2C) transactions, describing direct sales from companies to end customers [12]. Additionally, some firms deliberately operate across both transactional contexts simultaneously, representing a duality approach, while even less do not specify a market focus.

The third dimension, *Competitive Situation*, captures the horizontal market structure within which a pricing strategy operates. It reflects the degree of competition among market participants at the same level. A polypoly describes a market with a large number of competing firms, none of which holds a dominant position. The most prevalent market structure identified in the reviewed literature is the oligopoly, in which a limited number of firms hold dominant market positions, while remaining competitors must adapt their pricing strategies accordingly [14, 75]. Oligopolistic structures are particularly common in industries such as telecommunications, automotive, and energy.

The fourth and final dimension within the Market & Competitive Environment meta-dimension is *Geographic Scope*. It distinguishes between pricing strategies that are applied locally and those implemented on a global scale. Local pricing strategies are tailored to the specific conditions of regional markets, accounting for factors such as local regulatory frameworks, infrastructure constraints, purchasing power disparities, and heterogeneous customer requirements [45, 62]. In contrast, globally standardized pricing strategies are applied uniformly across markets, driven by considerations such as brand consistency, economies of scale, and the reduced complexity of managing a unified pricing structure [41].

Strategic Requirements. This meta-dimension establishes the normative and strategic layer within which pricing mechanisms are configured, ensuring alignment with overarching organizational intentions. It incorporates four dimensions: *Orientation, Objective, Vertical Power Distribution,* and *Lifecycle Perspective.*

The first dimension, *Orientation* reflects the general strategic alignment of the pricing strategy with respect to external and internal influences. Cost-driven pricing strategies consider both internal production costs and external cost factors as the primary basis for price-setting [55, 58]. Value-driven strategies, in contrast, prioritize the perceived value created for the customer [24, 41]. Competition-driven strategies orient price-setting relative to the competitive landscape, aligning prices in response to competitors' positioning and market dynamics [5, 20].

The second dimension, *Objective*, represents the primary economic or non-economic goal that the pricing strategy is intended to support. As this dimension is not mutually exclusive, multiple objectives may be pursued simultaneously. Profitability and market share represent classical economic objectives in competitive markets, each implying distinct pricing configurations [14, 36]. Innovation promotion reflects a strategic intent to achieve differentiation through new business models or product offerings [17]. Customer retention and brand image address the role of pricing in fostering long-term customer loyalty [2]. Finally, sustainability and CSR as well as product quality represent non-economic objectives that can enhance customers' willingness-to-pay by signalling responsible and high-quality value propositions [19, 23].

Vertical Power Distribution captures the firm's relative position within the vertical pricing hierarchy of its market. Price leadership describes a proactive stance, whereby dominant firms set prices that competitors are compelled to respond to [25]. Price following, in contrast, reflects a reactive orientation, in which firms align their pricing decisions with those of market leaders [2]. Price autonomy represents an independent positioning, whereby firms set prices neither in anticipation of leading the market nor in direct reaction to competitors, but according to their own strategic logic [73].

The final dimension *Lifecycle Perspective* captures whether a pricing strategy explicitly incorporates considerations related to the temporal lifecycle of a product or service. This especially applies to perishables and fashion items [22]. When a product or service is introduced to the market for the first time, market entry pricing decisions become relevant, requiring strategies such as penetration or skimming pricing [40]. However, the majority of pricing strategies identified in the reviewed literature do not explicitly address lifecycle considerations and are therefore classified as life cycle agnostic.

Customer & Demand. This meta-dimension addresses all dimensions related to the target customer and the nature of demand, as pricing strategy effectiveness is ultimately contingent on alignment with customer behaviour and demand characteristics. Four dimensions configure it: *Customer Segment, Behavioural Assumption, Demand*, and *Involvement.*

The first dimension, *Customer Segment,* defines the type of customer that a pricing strategy is designed to address. Premium segment customers are characterized by a high willingness-to-pay, valuing quality, exclusivity, or brand prestige [28]. In contrast, pricing strategies targeting the mass market address customers for whom price is a primary decision criterion, necessitating cost-efficient and competitively positioned pricing approaches [58]. Additionally, pricing strategies must be specifically configured when addressing the public sector, given its distinct procurement regulations [46].

Behavioural Assumption describes the underlying model of customer behaviour that a pricing strategy implicitly or explicitly adopts. Behavioural pricing is grounded in the psychological dimensions of price perception, recognizing that customers do not always act rationally but are influenced by cognitive biases, emotional responses, and habitualized purchasing patterns [9]. Rational and strategic actors are assumed to make forward-looking decisions aimed at maximizing long-term utility, taking into account future consequences of their choices [38]. Myopic actors, while also rational, prioritize short-term gains and immediate benefits over long-term optimization [22]. Finally, an integrative perspective acknowledges that customer behaviour cannot always be reduced to a single model, incorporating both behavioural and rational elements to provide a more holistic understanding of customer decision-making [69].

Demand captures the assumptions made regarding the nature of customer demand within the pricing strategy. Demand can be either deterministic and precisely calculated as a function of known parameters [11] or stochastic and approximated through probabilistic models that account for unpredictable shifts in customer behaviour [10].

Finally, *Involvement* describes the degree to which customers participate in the formation and implementation of the pricing strategy. Participative pricing strategies grant customers an indirect influence on price formation through feedback mechanisms, negotiation processes, or demand-driven pricing models [4]. Directive pricing strategies, in contrast, are entirely firm-driven, with prices determined unilaterally by the company and presented to customers without opportunity for influence or negotiation.

Operationalization. This meta-dimension defines how a pricing strategy is translated into practice. It covers four dimensions: *Price Adjustment Pattern, Portfolio Scope, Distribution Channel,* and *Analytical Maturity.*

The first dimension, *Price Adjustment Pattern*, differentiates pricing strategies according to their temporal flexibility and responsiveness to contextual changes. Dynamic pricing strategies represent the highest degree of flexibility, enabling real-time price adjustments in response to rapid changes in predefined parameters such as demand, competitor behaviour, or inventory levels [1, 13]. At the opposite end, static pricing strategies are characterized by their simplicity and uniformity, typically applying fixed prices over a predetermined time interval [16]. Between these two extremes, scenario-based pricing strategies define price adjustments according to predefined application cases or contingencies [42].

Portfolio Scope describes the breadth of the product or service offering to which a pricing strategy is applied. Pricing strategies may target a single product or service, allowing for focused and precise price determination [74]. Bundling and cross-selling strategies extend this scope by combining multiple offerings, enabling price configurations that reflect complementarities and customer value across products [21]. At the broadest level, pricing strategies addressing the full product range or complete portfolio must account for demand interdependencies across all offerings [67].

The third dimension, *Distribution Channel*, captures the structural pathway through which products or services reach the customer, as channel architecture directly influences pricing strategy design. Omni-channel strategies integrate both physical and digital touchpoints into a seamless pricing approach [67], while multi-channel strategies operate across several channels without full integration [37]. Purely online strategies are exclusively digital, benefiting from real-time data availability and low transaction costs [73]. Purely offline strategies, in contrast, rely on traditional physical distribution, where pricing is less dynamic and more relationship-driven [4].

Finally, *Analytical Maturity* reflects the level of technological and analytical sophistication applied in the execution of the pricing strategy. At the highest level of maturity, AI and machine learning approaches enable self-learning pricing systems capable of identifying complex patterns and optimizing prices autonomously [29]. Tool-based optimization relies on established software solutions and quantitative models to support pricing decisions, representing a high but structured level of analytical capability [70]. Analog-algorithmic optimization applies rule-based or heuristic approaches without dedicated software infrastructure [48]. Finally, intuitive pricing relies on human judgment and experience, representing the lowest level of analytical formalization [4, 58].

5 Discussion and Conclusion

This paper developed a contextualized taxonomy of pricing strategies as a DSR artifact [26], responding to the absence of an IS-grounded classification framework capable of reflecting the complexity of IS-mediated pricing in dynamic market environments. The taxonomy organizes 52 characteristics across 16 dimensions and four meta-dimensions and was iteratively developed and evaluated against 50 real-world case studies drawn from the structured literature review.

The evaluation reveals a finding of direct relevance to IS research and practice: while 44 of 50 cases adopt dynamic pricing as their operative strategy, only 9 leverage AI or machine learning for execution [29]. The dominant mode of analytical IS maturity remains tool-based optimization, with a substantial share relying on analog-algorithmic or heuristic approaches. This misalignment between strategic intent and IS capability, surfaced systematically through the Analytical Maturity dimension, confirms both the diagnostic value of the taxonomy and the relevance of the research gap identified in the introduction. Organizations are not failing to adopt dynamic pricing strategies; they are failing to build the IS infrastructure required to execute them [27, 64]. This finding directly answers RQ1 by demonstrating that analytical maturity, alongside temporal

flexibility and contextual factors, is a necessary and previously neglected dimension of pricing strategy characterization.

From a theoretical perspective, this work extends prior taxonomies by introducing dimensions that prior frameworks systematically neglected: temporal dynamics, IS analytical maturity, and cross-sectoral contextual factors [5, 30, 52, 61]. The positioning of pricing strategy as a configurable IS artifact, rather than a managerial heuristic, opens a productive line of IS inquiry into how organizational digital maturity shapes pricing outcomes [26]. From a practical perspective, the taxonomy offers decision-makers a structured instrument for diagnosing the alignment between their strategic pricing intent and their current IS capabilities, and for identifying the configuration changes required to close that gap.

Several limitations warrant acknowledgment. First, not all 52 characteristics combine meaningfully in practice; certain characteristics are logically or operationally incompatible, which constrains the taxonomy's use as a combinatorial configuration tool. These are for example any combination of *Market Focus* and *Customer Segment,* since the addressed customers implicitly induce either B2B or B2C, but do not allow every combination. The same goes for the *Orientation* and *Objective,* where a cost-driven strategy would contradict a focus on product quality. Future research should systematically map permissible and impermissible characteristic combinations to sharpen this instrument. Second, although mutual exclusivity is a formal criterion of the taxonomy development method [51], we deliberately prioritized empirical validity over formal completeness, retaining only characteristics observed in the reviewed literature [35, 63]. The monopoly characteristic under Competitive Situation, for instance, was excluded because no practical use case was identified despite its theoretical plausibility; many theoretical models rely on monopoly assumptions, while in reality these settings usually do not occur. Third, the taxonomy was evaluated through literature-based case studies rather than primary empirical data, which constrains the strength of the IS-capability claims. Validation through expert interviews with pricing system architects or IS managers, would substantially strengthen the empirical grounding of the Analytical Maturity dimension in particular [51].

Future research directions follow naturally from these limitations. The taxonomy reflects the state of pricing IS as of the literature review cutoff; the rapid emergence of agentic pricing systems may require revision of the Analytical Maturity dimension sooner than is typical for DSR artifacts, and continuous extension is therefore recommended. Mapping characteristic incompatibilities would enable the development of a configuration decision support tool built directly on the taxonomy. Longitudinal studies tracking organizations as they move along the Analytical Maturity dimension would shed light on the IS investment and change management conditions that enable the transition from tool-based to AI-driven pricing. Finally, the taxonomy provides a baseline against which the emergence of agentic pricing systems (e.g., autonomous agents that negotiate, adjust, and govern prices without human intervention) can be tracked and classified, positioning this work as a foundation for IS research on the autonomous enterprise in pricing contexts [29, 64]. Considering price strategy applications utilizing AI agents, the taxonomy can simply be updated by adding these as a distinct criterion to the analytical maturity dimension.

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