Pricing Strategies for Information Technology Services: A Value-Based Approach

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Abstract

While commoditization is creating opportunities for customers of information technology services, it is creating new challenges for the service providers. Pricing strategies are one of the most important challenges and decisions for today's IT service providers. Pricing strategies for IT services have traditionally focused on covering costs, achieving desired margins and meeting the competition. These pricing schemes range from simple approaches, easily copied by competitors, to complex models with high management costs. In order to be successful in today's competitive business world, the service providers need to define their pricing strategies by considering the customer's perceived value from the service they receive rather than using traditional cost-based pricing strategies. This paper surveys literature on IT services pricing and presents a value-based approach to effectively price IT services.

1. Introduction

The pricing decision is one of the most critical decisions that a firm can make whether planning the introduction of a new information technology (IT) service or repositioning an existing IT service. No tool in the marketing toolbox can either increase sales or reduce demand more quickly than pricing strategy. Pricing strategies for IT services have traditionally overemphasized cost-related criteria at the expense of the value of the service to the customer [34] [54]. Cost-based pricing strategies are focused on creating short-term value for the service provider. Conversely, value-based pricing focuses on the customer's perception of the value of the service, not on service costs only (see Figure 1). The goals are focused on setting prices that facilitate the development of customer relationships that can create long-term value for the customer, which, in turn, enables the achievement of the service provider's financial and strategic objectives.

From a marketing perspective, the goal of pricing strategy is to assign a price that is the monetary equivalent of the value the customer perceives in the product while meeting profit and return on investment goals [41]. This paper posits the view that the traditional cost-based approach to IT service pricing is typically short-term, tactical in nature, and places the interests of the provider over the interests of the customer. Conversely, pricing approaches based on the customers' perceptions of value are strategic and long-term in nature since they are focused on monetizing the service value perceptions from each customer through the pricing mechanism [21]. Firms that understand the strategic role of pricing and utilize a systematic approach to setting prices, by understanding how customers value service alternatives and arrive at prices that they are willing to pay, can make better decisions throughout the service development and implementation process.

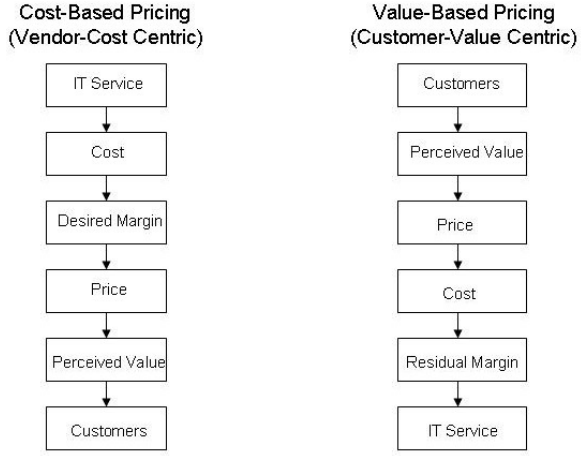

Figure 1. Cost-centric pricing compared with customer value-based pricing

Services, whether they are knowledge and labor intensive (e.g. personal services, consulting, medical, education, software engineering, etc.) or dependent on IT infrastructure have the following shared characteristics:

- Relatively intangible primary components that cannot be easily transported as goods
- Perishable components unable to be stored for later use
- Higher levels of customer contact that lead to higher instantaneous demand for a service
- Non-standardized components
- Simultaneous production and consumption [5][65]

The emerging definition of IT services leverages these characteristics while seeking to systematize services and overcome some of the service challenges (in terms of transportability, storage, and standardization) in service delivery environments. Therefore, IT service providers seek to integrate tangible products such as hardware and software with relatively intangible services such as maintenance,

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support, and professional IT services into an overall value solution. In doing so, they are applying new governance mechanisms, standards and metrics (e.g. service level agreements, ITIL [53], eSCM [36]) and designing environments and interfaces that leverage the scalability and strengths of products and systems facilitating the delivery of high-value services.

In this article, after reviewing the traditional cost-based pricing strategies, we present a value-based approach to effectively price IT services. This study is one of the early attempts to survey the literature on IT service pricing.

2. Cost-Based Pricing

Cost-based IT services pricing is a popular method since it relies on readily available information from cost accounting systems. IT and financial managers often price IT services to yield a desired return on fully allocated costs. Service development plans typically are not approved without sufficient and timely return on investment (ROI) [38][44].

IT services costs are a blend of service and infrastructure costs. Infrastructure costs are often assumed to be fixed but assigned allocations that can vary with assumptions about projected volume [37]. Service delivery is assumed to be a variable cost. The inability to successfully model the circular nature of the impact of price on volume and of volume on price can lead to overpricing in weak markets and under pricing in strong markets [52]. It may be particularly inappropriate for services where it is difficult to assign costs to intangibles.

The most common cost-based pricing strategies are.

1. **Flat pricing.** Sometimes called "all you can eat" or "all in one" pricing, users pay a fixed price for unlimited use of the IT service, typically without up-front fees. Cost recovery is a primary pricing goal.
2. **Tiered-pricing.** Tiered-pricing attempts to package IT services to ensure cost recovery and higher margins by matching price levels with the user's willingness to pay. This approach to pricing is an attempt to link the cost of IT services to customer service level requirements.
3. **Performance-based pricing.** IBM pioneered a pricing model where license prices were based on the theoretical throughput of the system in terms of the MIPS (Million Instructions per Second) capability of the machine running the software [24]. The goal for the provider is to recover costs and ensure margins and not set prices based on perceived customer value. Customer dislike this pricing model since the same software performing similar tasks but running on different machines is priced differently.
4. **User-based pricing.** The charge is based on the number of users that utilize a collection of IT service capabilities over a given period of time. The assumption is usage is related to costs. The principal variations on this theme are:
   Per-user pricing is set to an individual user who typically can use the product on an unlimited basis for the term of the license [3]. This approach typically offers one price for a specified number of users [58].
   High water mark pricing charges are based on the maximum number of concurrent users over a given time period.
   Per-seat pricing is similar to per user pricing, except that the license is assigned to the workstation and can be used by a designated number of users [62].
5. **Usage-based pricing.** Known as "pay-as-you go pricing" or "network pricing", customers pay only for what they actually use on a transaction basis. It is often associated with an application service provider (ASP) model [9].

3. Value-Based Pricing

The key to value-based pricing success is the recognition that the price depends on the customer's value requirements rather than those of the IT service provider. Buyers make judgments about benefits and prices, and choose those products and services that maximize their perceived value. The goal of value-based pricing is to enable long-term profits by capturing more value. That price should, in turn, determine the level of development costs that the company is willing to incur and what services can be sold given the cost and residual margin structure [25].

3.1. Customer Value Drivers

Customer value is the overall benefit derived, as the customer perceives it, at the price the customer is willing to pay [32][56]. IT service providers must first understand how their customers perceive value. Perceived value is defined in terms of the tradeoff between perceived benefits to be received and the perceived price for acquiring the product or service that delivers those benefits [33]. Service providers should understand what these tradeoffs are and how to influence product and service configurations that can maximize customer value and business outcomes [18]. The power of choice mandates that those configurations that deliver superior value will win in the market place.

In order to create the foundation for setting prices, it is necessary to identify the relevant set of value drivers for the market segment being targeted and understand the importance of each in the purchase decision [39][32]. Customer value drivers are emotional links that summarize customer perceptions about the product and firm, create positive attitudes and feelings, provide the basis for differentiation, and provide the reason to buy [32][56]. The primary categories are:

1. **Economic value.** Economic-value drivers are based on the buyer's perceptions about the cost (price) of acquiring, owning, installing, using, and disposing of a product or service. It is associated with functional value [25][51][52][38][56].
2. **Performance Value.** Performance value is based on the buyer's perceptions of the utility to be derived from the functional features, advantages, and benefits associated with a product or a service. This value driver is associated with functional value [56].
3. **Supplier Value.** The buyer's perceptions about the credibility of the provider and trust in the business relationship links directly to brand acceptance. A strong brand provides a greater barrier to competition since it takes much longer to change perceptions about a company [31]. Supplier value is associated with emotional value and epistemic (knowledge) value [56].
4. **Buyer Motivation.** The buyer's psychological motivations for a particular purchase are central to the decision process [68][45][46]. This value driver is analogous to emotional value and epistemic value [56].
5. **The Buying Situation.** Customer value perceptions occur within a situational context that may inhibit, facilitate, or have no effect on purchasing behavior [4]. Key situational variables are:
   Task definition What tasks or uses does the service address? [10][31]
   Resource capability The physical and intellectual resources of the buyer including budgets, infrastructure, and technical skills [25].
   Time horizon Buyers with short decision time horizons tend to be less price-sensitive. How far in the future is the decision and how long will the service be used? [66][67].
   Social influences How do the customer and service users (those managing, influencing and executing the purchase decision) influence the adoption of IT services? [68][40][42].
   Experience level Highly experienced buyers tend to have stronger product-related attitudes, which influence price expectations [49].
   Availability refers to the degree of accessibility of objective information about the service or company for assessing performance and risks [64].

3.2. Theoretical Foundations of Value-Based Pricing

Customer value is created by interactions between the customer and the service provider [65]. Therefore, in addition to understanding the cost structure of the service offering, the services provider must understand price-relevant customer characteristics in order to set the service organization's pricing objectives. Tellis [63] classifies pricing strategies into three groups based on the objectives of the firm: differential, competitive and product-line pricing. We will extend "product-line pricing" to "product-service line pricing" since the object here is to delineate the value-based concepts that can apply equally well to products or services individually or in combination. Differential pricing objectives are considered when the product is sold across multiple segments at different prices with shared costs and potential shared benefits [69]. For instance a high-price segment may subsidize a low-price one. But the increased volume in the low-price segment may lower overall product costs to the long-run benefit of all consumers. Competitive pricing objectives are set to exploit a competitor's vulnerability. Product-service line pricing objectives enable the exploitation of shared economies across the product-service line and across segments.

The second major factor to be considered is the pre-purchase characteristics of customers that may predominate in any pricing situation and enable different pricing strategies to be utilized [63][18]. Customers can be classified by search costs, reservation prices, and transaction costs. Some customers have high search costs since they place a high importance on their time and opportunity costs. They are not willing to spend time searching for purchase-relevant information. Since they are not well informed they tend to associate high prices with high quality [27] or to buy randomly at higher prices. Others may search somewhat more actively to take advantage of discounts. Customers with low reservation prices have no pressing need for the product or service and will wait for a lower price. Others with high reservation prices may associate low prices with low quality.

Finally, customers can be segmented into unique groups based on special transaction costs. These costs include service testing and evaluation, priority status, shipping and handling, installation, switching costs, cost of capital and investment risk [29]. Lowering transaction costs is a key motivation for IT service adoption [8].

Common value-based approaches to pricing are:

1. **Penetration Pricing Strategies** target market segments where buyers have a high degree of price sensitivity [47]. Price-sensitive buyers typically have low reservation prices. Delivering benefits that are perceived as industry standard at a price that is sufficiently low to generate increases in sales volume creates customer value.
   Low-price leader (low reservation price/competitive pricing) targets buyers with low reservation prices. This strategy targets the mass-market buyers with reasonable features at a low price. The competitive pricing objective recognizes that the market has reached maturity. Buyers emphasizing economic

value drivers would be attracted to the lower prices provided the service features were industry standard.

Experience-curve pricing (low reservation price/ competitive pricing) targets buyers with low reservation prices. The initial price is set below cost in order to build volume and move more rapidly down the cost curve toward profitability and discourage competition. Service providers in this situation are typically targeting high-volume price-sensitive segments in mature markets [47].

Bundling (low reservation price/product-service line pricing) features several services or combinations of products and services that are packaged together and priced as a single unit. It is a product-line strategy that maximizes sales and profitability of complementary products within the product line [47][52].

2. **Skim-Pricing Strategies** target buyers that are relatively insensitive to price [47][55][57]. All have high search costs.

   Price signaling (high search costs/segment differential pricing) is often used for segment differential pricing of new service offerings where time is a primary factor in the decision process. Information about price is more easily acquired than that about quality or performance [26][27][45][46].

   Reference pricing (high search costs/competitive pricing) is a variant of price signaling. Comparison with the higher-priced product highlights the value of the moderate priced product and vice versa [25][47].

   Image/prestige pricing (high search costs/product-service line pricing) targets customers with high search costs who are attracted to brands that have achieved a reputation for high quality and exclusivity [45][46][57]. Buyers have expectations for exclusiveness and high levels of support and service.

3. **Hybrid Pricing Strategies** combine elements of skimming and penetration strategies. Combinations of high search costs, low reservation prices, and/or special transaction costs may characterize potential buyers. Special transaction costs might include the complex and expensive evaluation process for enterprise IT services or the switching cost for changing service providers.

   Cost-plus pricing (special transaction costs/ competitive pricing) is often used by IT service providers that develop systems for the government, or other large customers, where risks are not easily quantified, and special transaction costs are high. Cost-plus pricing guarantees the provider a rate of return on project costs [43].

   Complementary pricing is a product-service line strategy based on a solution's shared economics that exploits differences in customer value for the base component (low reservation price/product-service line pricing), which may be either a product or a service, and a complementary (higher-margined) component (special transaction costs/product-service line pricing), which is typically a consumable or a service. The base component is sold at a low price that minimizes resistance to purchase but becomes the key link to repeated purchases of consumables and services [52]. The goal is to generate higher profits from the complementary components due to the additional special transaction costs, higher margins, and repeat transactions. For example, application service provider (ASP) software services minimize the front-end investment (and front-end transaction costs) by eliminating the need for purchasing software or servers [61][30]. Profits are generated by the higher margins from complementary transaction-based services such as maintenance and support.

   Premium pricing (high search costs/product-service line pricing) Marketers address different groups of customers by using a product-service line strategy that addresses the higher search costs of some groups and the lower reservation prices of others [47]. This practice is also known as "price lining." The strategy is implemented by pricing versions of the product to address entry level, mid-level, and high-end premium-buying customers. Prices are set based on the levels of the value the buyer perceives in each market segment.

   Random discounting (high search costs/ differential pricing) A random discounting strategy maintains a high skimming price but offers discounts on a random basis as an incentive to new buyers to try the product [18]. This strategy can be applied as a variant of the ASP pricing scenario where users can try the product at a discount before they sign up for a longer-term license.

   Periodic discounting (low reservation price/segment differential pricing) creates customer value for sequential classes of buyers with increasingly low reservation prices. The initial strategy focuses on skimming the inelastic demand of the innovator then reducing prices on a predictable basis as the market matures in order to attract more price-sensitive customer groups [63].

   Second-market discounting (differential pricing/ special transaction costs) is the situation in which marketers introduce an existing product to a new market where buyers are more price-sensitive than the primary market and have identifiable special transaction costs. For instance, Microsoft has offered second-market discounts to buyers that are contemplating implementations of Linux-based operating systems in the server market [29].

Table 1. The Customer-Value Dimensions of Cost-Based and Value-Based Pricing

Customer Value Driver	Cost Based-Pricing	Value-Based Pricing
Economic Value	**Flat pricing** Delivered initial cost is the key driver **Tiered-pricing** Cost to customer will vary with need for higher performance **Performance-based pricing (1)** User pays up front based on power of host processor **User-based pricing** Pay by number of users **Usage-based pricing (1)** Match price to usage	**Low-price Leader** **Bundling (1)** Lowers initial costs & increases switching costs **Experience-curve pricing** Lowers initial cost to obtain volume **Complementary pricing (1)** Lower initial cost for the base unit initial cost **Premium pricing (1)** Low-end product, second market discounting
Performance Value	**Tiered-pricing** Pay more for higher performance potential. **Performance-based pricing (2)** Pay more for higher performance outcomes. Workload license charges attempts to match license fees to actual workload. **Usage-based pricing (2)** Pay more as usage increases	**Bundling (2)** Increased performance at a given price. **Complementary pricing (2)** Consumables or services-higher margins on matched consumable item or services. **Premium pricing (2)** High-end product—The high-performance product contrasts with lower-price members of product line. (See (1) above.)
Supplier Value		**Price signaling** Brand name is synonymous with high quality and commands higher price **Reference pricing** Buyers with high-perceived risk will look to high-credibility brand **Image/prestige pricing** Reputation of the supplier is key to the purchase decision
Buyer Motivation		**Reference pricing** Buyer has high-perceived risk and needs a reference point **Random discounting** Entice buyers with high-perceived risk to try the product **Image/prestige pricing** Buyer is emotionally involved with brand image
Buying Situation	The net effect is to serve as a constraint or facilitator on the purchase decision. For instance, a buyer with very specific task requirements may be less price-sensitive and accept a higher price for the right solution. A company with its own in-house IT department and a high degree of product experience may be more price-sensitive.	

Table 1 depicts the differences between cost-based pricing and value-based pricing from a customer-value driver perspective. Some strategies extend over two characteristics where (1) is the lower end of economic value and (2) indicates the higher-priced component of the shared relationship. It can be readily concluded that cost-based pricing is totally focused on the economic value and performance value dimensions. Unless the service provider has sufficient market power to enforce its cost recovery/ROI-based pricing strategy, competition will quickly force lower prices as performance standards become common industry-wide. Conversely, value-based pricing targets the economic and performance value dimensions in order to provide additional value to the customer as the basis for forming long-term and more profitable relationships. Market penetration and hybrid strategies dominate. One can also discern that the more profitable skimming strategies, driven by supplier value and buyer motivations, leverage brand-image, self-image and other intangibles to increase perceived value and enable higher prices.

4. Traditional Pricing Strategies for IT Services

We define IT services from a total customer value perspective—the aggregate value available to the customer from the systematic integration of the individual IT service components. Therefore, IT services consist of software, hardware, telecommunications networks, data, maintenance, technical support, and consulting necessary to design, deploy, operate, and maintain computer applications for the purpose of delivering superior customer value. The software industry's shift from product-centric to service-centric business models provide the opportunity for exploring value-based pricing strategies. This shift has been enabled by improvements in Web-based IT infrastructure that have enabled new approaches such as Software as a Service (SaaS) (where the "product" might become the "service") and Infrastructure as a Service (IaaS) leveraging delivery models such as "cloud computing" or "on-demand" computing in addition to more traditional IT services such as maintenance, support, file and print services, business recovery, and professional consulting [1][17].

4.1. The Shift to Services

Pricing for IT services is often a neglected topic for many IT managers [35]. Transitioning from a pricing strategy based on software products to an IT services orientation is extremely complex but highly important for both providers and customers to understand [12].

Cusumano [13] observes that the transition to services is a long-term trend. As traditional software

product sales and license fees have declined over the past decade, the emphasis on services such as maintenance, upgrades, technical support and consulting has increased, especially for enterprise-software providers. The growth of open source and free software has accelerated the trend toward standardization and commoditization of software products [14][50]. Cusumano [13] further argues that the SaaS model has disrupted the traditional separation of product and service revenues by including maintenance and technical support within its value proposition.

The growth of IT services might be the result of a natural lifecycle of software companies or a deliberate business choice to emphasize services [13]. The life-cycle notion posits that young companies generate most of their revenues from product sales and license fees, maturing companies shift to a mix of products and services for competitive reasons, and mature software companies' revenues are mostly from services since license fees have declined. Due to industry consolidation only about half of the 300 public software product companies in 1997 remain [12][13]. Increasingly, those companies are looking to services for their continued growth.

4.2. Information Technology Enhanced Pricing Strategies

Dixit et al. [18] extended the scope of the Tellis [63] pricing-strategy taxonomy to encompass recent developments in information technology. They explored three classes of IT influences that drive six pricing approaches that the authors call information technology enhanced pricing strategies (ITEPS).

1. **IT influences on pricing strategy**. The drivers are increased information availability, enhanced reach, and expanding interactivity that inform auctions, revenue management, price signaling, automated pricing, price customization, and bundling [18].
   Increased information availability about IT solutions enables customers to make better choices. IT enables the collection, analysis, and dissemination of decision-relevant information, enhances price customization, bundling options, revenue management, and automated pricing strategies [15][16].
   Enhanced reach. IT services enable large numbers of customers to access solutions through the Internet. This creates pricing opportunities for bundling/unbundling, price customization, and online auctions. Auction participants may be deal prone and searching for low prices. Alternatively, the broader number of participants may bring in buyers that are willing to pay more, as well.
   Expanded interactivity may increase efficiency by enabling electronic transactions and customer interactions. User support groups, search, interactions between buyers and sellers, and group buying programs are some examples. Interactivity supports auctions, revenue management, and bundling price strategies.
2. **ITEPS Pricing Classifications.** Dixit et al. [18] uses the Tellis [63] differential pricing, competitive pricing, and product-line classifications for introducing six ITEPS approaches to pricing as summarized below:
   Differential pricing strategies arise because of the heterogeneity of consumers which suggests that firms can sell similar products to consumers in different segments at different prices [63].
   i. Internet auctions may be either forward (buyers compete for items from a single seller) or reverse (sellers compete to sell to a single buyer). In both cases the typical situation is buyers with low reservation prices.
   ii. Revenue management. A pricing approach that is based on market segmentation and the ability to forecast factors that would cause demand and prices to fluctuate over time [11]. Revenue management (yield management) is used to maximize revenues for airline reservations and IT resources [19]. This approach pits the power of the seller against the time constraints and special transaction requirements of the buyer.
   Competitive pricing strategies are based on a firm's competitive position [63]. The primary goal is to exploit scale economies to penetrate the market by pricing below competitors. Consumers tend to equate higher prices with higher quality if the price cues are more readily available than quality cues [27][45][46].
   i. Price signaling. Consumers will look for cues such as brand reputation to infer quality. Lacking that, price can become a surrogate for quality for those with high search costs [63].
   ii. Automated pricing. Internet shopping agents (ISAs) enable consumers with low reservation prices to search and compare prices among many online retailers.
   Product-line pricing strategies are relevant when a firm offers a set of related products at different price-points. These products may be bundled to provide more value [6][7]. Having products at different price-points enables price customization to balance price across the product-line.
   i. Customization. Marketers build relationships with customers where they can offer special deals to their best customers to reward loyalty and enhance the lifetime value of the customer.
   ii. Bundling/unbundling enables firms to mitigate the effect of direct price comparisons. Bundling may be profitable since more revenue is generated

for each transaction without incurring additional incremental costs.

Traditionally, software companies used three revenue models: *the up-front license fee*, *separate maintenance agreements*, and *professional services* to install, integrate, deploy, train users, and customize the software. A common mix now is one-third of revenues from license fees, one-third from maintenance payments, and one-third from other IT services [12]. Cusumano [13] evaluated the pricing models for 108 Web-based enterprise software companies. Monthly subscription fees are the most commonly used pricing model, used 49% of the time followed by some type of "free" pricing, annual license fees, open source, advertising supported and pay-per-use. Combining these categories, we can arrive at a reasonable picture of current IT services pricing strategies:

1. **Monthly subscription fee.** This approach has become the default pricing model for Web-based solutions such as SaaS. The application, maintenance, and some level of technical support are often bundled into the monthly fee.
2. **Free and free, but not free.** Open source software is available for free. However, unless the "customers" are willing to do their own service work such as customization, installation, integration, deployment, maintenance, and technical-support work themselves, there is ample opportunity for the IT services firm to generate service revenue by making the open-source software more user friendly. Some observers believe that most software companies will be forced into this type of model as the marginal cost (subsequently prices) of applications on the Web approaches zero [2].
3. **Up-front license fees.** This is a dying pricing model used mostly by legacy software firms. They typically sell services separately. This model favors providers and is usually not attractive to customers.
4. **Pay per use.** This is an old cost-based pricing model that provides more value to the provider than the customer.

Table 2 in the Appendix presents a comparative taxonomy of IT pricing models. Several conclusions can be made. ITEPS pricing strategies focus on basic penetration and skimming strategies not conducive to customer relationship-building and does not appear appropriate for IT services. ITEPS may be used for online pricing of products and services that is more deal-oriented, automated or self-serve. Software firms transitioning to IT services are using relatively unsophisticated models—monthly subscription fees and some version of free services. License fees and pay-per-use will continue to fade.

5. Implementing Value-Based Pricing for IT Services

Customer-value based pricing strategy is market segment-specific, since value perceptions vary between customer groups. After choosing the target market, marketers must determine the value that customers perceive in the service. This assessment includes identification of the customers' value drivers, price sensitivity, choice perceptions, and other price-related characteristics. Once the price the customer is willing to pay is determined, this information is integrated with cost-volume estimates to determine if the IT service, as configured, can be sold at a profit [48]. This type of information, which is interactive with the customer and the market, can be used to adapt the service's design to meet the customer's value expectations or to reconfigure the pricing strategy.

Figure 2 shows the framework for the development of customer-value based pricing strategies for IT services. Pricing strategy is dependent on the organization's knowledge of the service situation, customer relationship expectations, price-relevant customer characteristics (value drivers, transaction & search costs, reservation prices buying situation), the competitive situation, service costs, and pricing objectives. The dynamics depicted in the diagram can be assessed at any time in the strategy development process in order to associate customer price perceptions with IT service development and commercialization options. This early-stage analysis, by linking cost estimates to anticipated prices, can help to determine if a particular product-service configuration should be pursued [23][33][40]. This price information can be used for commercialization and to check post-launch pricing efficacy.

This type of value-related information is superior to the cost-oriented approach that is most often based on projections of product-costs, project management-oriented economic analyses, and managerial rules-of-thumb. Adding a margin to standard costs is not a defensible way to price services [22][28][29][54]. IT service providers need to use value-based pricing methods that model actual customer value, price sensitivity, and value-in-use scenarios [59][60].

6. Conclusion

This paper presents a review of contemporary cost-based IT services pricing models contrasted with value-based approaches. The cost-based pricing models have evolved from a financial perspective based on the economics and internal cost-drivers of the software development process. As markets have become more competitive and providers are moving to more services-based revenue models, cost-based pricing models that ignore customer-value

requirements can no longer ensure a favorable rate of return to the IT service providers. A taxonomic analysis of customer value drivers indicates that cost-based models appeal to price-performance value drivers with promises of improved ROI for the customer while ignoring other potentially more important value drivers that are more intangible in nature.

The primary contribution of this paper is the detailed discussion of value-based pricing strategies as they relate to the emerging IT services industry. The article develops a prescriptive pricing taxonomy that depicts the relationships between customer characteristics, company objectives, and pricing strategy. It suggests that comprehensive knowledge of the customer can result in more appropriate approaches to pricing strategy.

Finally, we propose that IT organizations develop the organizational commitment to create human, systems, and social pricing capital that places the marketing organization at the center of value-based price decisions. In such a scheme the IT services and processes that companies develop will more accurately reflect the value that customers expect and are willing to pay for.

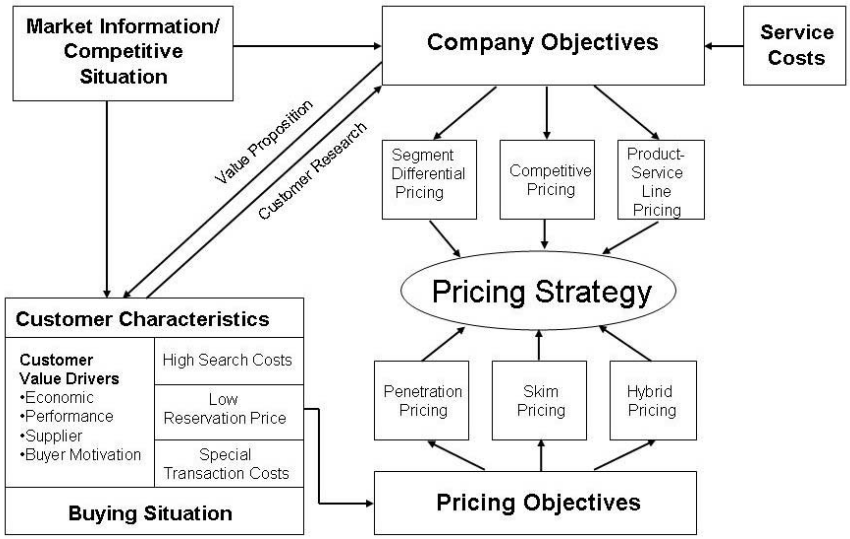

Figure 2. Framework for a Customer-Value Based Pricing Model (Adapted from [34])

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Appendix

Table 2. Taxonomy of IT Services Pricing Models

		Objective of the Firm								
		Segment Differential Pricing			Competitive Pricing			Product Line Pricing		
Pricing Objective	Customer Characteristic	Value-based Pricing	ITEPS Pricing [1]	Emerging Revenue Models[13]	Value-based Pricing	ITEPS Pricing [1]	Emerging Revenue Models [13]	Value-based Pricing	ITEPS Pricing [1]	Emerging Revenue Models [13]
Penetration Pricing	High Search Costs									
	Low Reservation Price		Auctions/ reverse auctions		Low-price leader Experience curve	Automated (dynamic) pricing	Free Open source	Bundling	Bundling	
	Special Transaction Costs									
Skim Pricing	High Search Costs			Up front license	Price signaling Reference pricing	Price signaling	Up front license	Image-prestige pricing	Custom pricing	Up front license
	Low Reservation Price									
	Special Transaction Costs		Revenue management				Pay-per-use			
Hybrid Pricing	High Search Costs	Random discounting		Subscription			Subscription	Premium pricing (higher priced item)		Subscription
	Low Reservation Price	Periodic discounting					Free, but not free Adverting-based Service based	Complementary pricing (base item) Premium pricing (lower priced comparator)		
	Special Transaction Costs	Second market discounting						Complementary pricing (consumable)		