



# SaaS Pricing Practices Typology: A Case Study

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**Abstract.** Software-as-a-Service (SaaS) pricing addresses decisions of monetary compensation and the conditions for the SaaS solution to the customer. Efficient SaaS pricing requires sophisticated decision-making and analytics, as well as coordination and compromises between the many business functions involved. The decision-making includes integrated analysis of different perspectives and streams of information. Like in many other product management areas, there is no silver-bullet solution for pricing. We conducted a multiple case study using fifteen SaaS companies with data collection primarily through semi-structured interviews to assess SaaS pricing practices and identify major factors that affect the way pricing is done. We identified four distinct types of SaaS pricing patterns and detailed their main characteristics.

**Keywords:** Software-as-a-Service · Decision-making · Pricing · Case study

## 1 Introduction

Software-as-a-Service (SaaS) pricing refers to the entire scope of decisions, practices, underlying conditions, and processes that determine the monetary compensation for using SaaS solutions. It is an essential and challenging element of SaaS product management, with a significant impact on business success. Incorrect pricing can lead to market failure, even for a technologically advanced SaaS solution. Pricing serves as an essential bridge between different business functions (e.g., product planning and development, revenue and cost management, and customer acquisition and retention) and business units (e.g., R&D, product management, sales, and marketing). Recent studies and reviews indicate the progress and sophistication in SaaS pricing and the growing attention from practitioners. Multiple challenges for companies can still be identified that require support from the research community [1].

Overwhelming and complex pricing-related processes and structures, the unclear segregation of responsibilities for pricing between managers involved, premature decision-making practices, and constantly changing objectives are often prime challenges. Efficient pricing requires developing sophisticated multi-layered structures with many different mechanisms and options, considering the trade-offs, objectives, and outcomes that pricing must meet. Informed SaaS pricing decision-making requires the involvement of different stakeholders and the consideration of many factors that include market characteristics, product and technology specifications, customers, and customer

needs and expectations. Taking into account these factors requires collecting a vast amount of data and advanced analysis, tasks that are not trivial.

Existing publications by scholars and practitioners reveal the variety and complexity of mechanisms available for SaaS companies while pricing their solutions [2–5]. They also provide an overwhelming number of recommendations concerning different pricing aspects [1]. However, the repeated enumeration of possible pricing options and fragmented recommendations does not bring the required clarity to SaaS companies, and pricing remains one of the most under-managed functions in many of them. Little evidence exists about the interconnection of different components of SaaS pricing, typologies of overall pricing practices, or decision-making organization principles.

This paper aims to identify and evaluate patterns in SaaS pricing, identify the major factors that affect it, and propose a typology of SaaS pricing practices. This study continues our inquiry into how SaaS companies design and deploy their pricing practices and processes.

## 2 Background

### 2.1 Related Studies

SaaS pricing is a maturing and prominent area of research. Existing SaaS pricing studies indicate the progress and sophistication in SaaS pricing practices and offer solutions that can carry SaaS pricing state-of-the-practice to a higher level. Our recent multivocal literature review [1] identified multiple challenges that require further support from the research community.

Some studies have already adopted the case-study method to evaluate various pricing aspects in SaaS and software companies. For example, based on interviews with software professionals from multiple case companies, Ojala [6, 7] identified and assessed factors that affect selecting revenue and pricing models in software companies. In another study [8], Ojala and Laatikainen investigated the interrelation between SaaS architecture and SaaS pricing practices.

### 2.2 SaaS Pricing

Existing pricing state-of-the-art and state-of-the-practice suggest distinguishing between four main pricing strategies: value-based pricing, market-based pricing, competitor-based pricing, and cost-based pricing. In short, they can be explained as follows in the SaaS context. Value-based pricing assumes aligning prices with the value perceived by the customer. Market-based pricing is grounded in an analysis of the market equilibrium of all customers and SaaS providers. Competitor-based pricing assumes aligning prices with the prices offered by competitors with the premium or discount depending on the circumstances. Finally, Cost-based Pricing suggests setting prices based on the cost structure of SaaS providers. In application to SaaS, researchers and practitioners have repeatedly emphasized the advantages and importance of value-based pricing. However, all four pricing strategies might exist in practice, and in many cases, the actual strategy is a hybrid combination of these strategies.

Several frameworks and structures exist to organize and systematize pricing in application to SaaS and cloud solutions in general [1]. However, in our study, we adopted a more generic, widely accepted, and comprehensive one called the Strategic pricing pyramid [9, 10]. The framework has the following levels from the bottom up:

**Value Creation:** The logic of value generation for customers from using the SaaS solution, including the metrics of impact of specific parameters on value.

**Price Structure:** The logic of structuring prices for a given SaaS solution, including principles of price variability depending on the customer-specific parameters.

**Price and Value Communication:** The principles of price and value communication to customers.

**Pricing Policy:** The principles of how prices may be altered, by whom, under what circumstances, and to what degree.

**Price Level:** The actual charge within the price structure according to the pricing policy.

### 3 Research Method

The following research question drove our study: *What types of SaaS pricing practices can be identified in a real-life context?* To address this question, we used a multiple case study research design to compare existing SaaS pricing practices and processes [11]. The case sampling strategy was guided by the diverse case approach with its primary objective to achieve variance along the relevant dimensions. Our scope of companies includes two major types of SaaS providers, “born-in-the-cloud” companies that usually have just one flagship SaaS solution and large IT vendors or traditional enterprise software vendors looking to expand into SaaS software markets. Other dimensions, including company size and maturity, target market type, maturity, and location, were considered while selecting case companies.

We selected a set of fifteen primary and secondary cases. Our primary cases include companies whose pricing managers we interviewed. Most of them are “born-in-the-cloud” small and medium-sized companies that usually have just one flagship SaaS solution. We could not involve large US-based SaaS companies in our study, although their presence is essential to understand and develop a comprehensive SaaS pricing typology.

To remedy this situation, we decided to include cases that we did not interact directly with. We assessed their pricing practices through available information and teaching cases on their business strategies and operations. We referred to these cases as secondary and found them in the Case Center<sup>1</sup>, the largest repository of teaching cases. This allowed us also to make assessments of pricing in large SaaS and digital companies as well as in enterprise software vendors with SaaS solutions in their product portfolio. An overview of the primary and secondary case companies is summarized in Table 1.

The goal is to identify decision-making practices and processes and understand the logic behind them. A within-case analysis was conducted with the analytical strategy of explanation-building based on case descriptions. The case analysis can be classified

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<sup>1</sup> <https://www.thecasecentre.org/>.

as exploratory. We developed patterns and categories and identified similarities and differences in the data. The logical sequence followed the research goals, starting with within-case analysis to establish themes and then continued by a cross-case comparison to identify similarities and differences.

**Table 1.** Characteristics of case companies

| Case | Case type | Number of employees | Number of SaaS solutions | Market type |
|------|-----------|---------------------|--------------------------|-------------|
| A    | Primary   | <10                 | 1                        | B2B         |
| B    | Primary   | <10                 | 1                        | B2B         |
| C    | Primary   | <10                 | 1                        | B2B & B2C   |
| D    | Primary   | 11–50               | 1                        | B2B & B2C   |
| E    | Primary   | 11–50               | 1                        | B2B & B2C   |
| F    | Primary   | 11–50               | 1                        | B2B         |
| G    | Primary   | 11–50               | 1                        | B2B         |
| H    | Primary   | 51–200              | 2                        | B2B         |
| I    | Primary   | 51–200              | 1                        | B2B         |
| J    | Primary   | 51–200              | 2                        | B2B         |
| K    | Primary   | 201–500             | 2                        | B2B         |
| L    | Primary   | 201–500             | 3                        | B2B         |
| M    | Secondary | 51–200              | 1                        | B2B         |
| N    | Secondary | 1001–5000           | 5                        | B2B & B2C   |
| O    | Secondary | 201–500             | 3                        | B2C         |

For primary cases, the data collection consisted of interviews with SaaS managers responsible for pricing. The length of interviews varied from 1 to 2 h. The goal of the interviews was to identify the pressure points of decision-making in SaaS pricing, motivate companies to participate in the longitudinal study, and assess both the current status quo and product managers’ perceptions of existing processes and practices. The data we obtained covered the following topics:

**General information about the company and SaaS solution:** name, industry, market, number of employees, number of customers, maturity level, business model, number of SaaS solutions, SaaS solution type, maturity level, etc.

**SaaS pricing practices and processes:** Pricing frameworks used, product activities allocation across business units, collaboration principles between business units, pricing tools used, SPM performance assessment principle, etc.

**SaaS pricing decision-making principles:** formal regulation and written policies on SaaS pricing activities, risks, and uncertainty identified, types of data collected for pricing decision-making, models and tools used to process provided data, information system support for pricing processes, etc.

For secondary cases, the data collection consisted of content analysis of the documented teaching cases and teaching notes to extract similar information.

## 4 A Typology of SaaS Pricing Practices

The qualitative research approach with semi-structured interviews allowed us to identify four major factors that affected SaaS pricing. The factors were the following:

**Factor 1: types of customers and market segments targeted.** We can distinguish between B2B, B2G, and B2C customers, as well as the size of targeted customers (especially in the B2B market).

**Factor 2: delivered value and willingness to pay (WTP) for the SaaS solution.** Specific estimates based on a limited number of cases are difficult to make; still, conventionally, we can distinguish between SaaS solutions with an average monthly usage fee of up to 100 USD, SaaS solutions with an average fee of more than 5000 USD, and those in between these two price levels.

**Factor 3: the complexity of SaaS purchase and usage.** We can distinguish between self-service SaaS solutions, SaaS solutions that might require human assistance in the purchase, customization, and maintenance, and SaaS solutions that require intensive human involvement, including offering additional professional and training services.

**Factor 4: the level of nicheness of the SaaS solution.** We can distinguish between mass-market SaaS solutions focused on solving problems typical for a wide range of customers and SaaS solutions focused on solving issues specific for customers from the same industry, country, or facing similar regulatory constraints.

Based on the analysis of these four factors, we developed a typology of four generic SaaS pricing approaches that we labeled *Mass-market SaaS pricing*, *Generalist SaaS*

**Table 2.** Typology of SaaS companies based on pricing practices

|  | Mass-market SaaS pricing | Generalist SaaS pricing       | Specialist SaaS pricing        | High-rise SaaS pricing |
|--|--------------------------|-------------------------------|--------------------------------|------------------------|
| Case companies   | <b>C, D, E, N, O</b>     | <b>I, L, M</b>                | <b>A, B, F, J, K</b>           | <b>G, H</b>            |
| <b>F1:</b> Targeted types of customers and market segments | B2C and B2B              | B2B                           | B2B                            | Large B2B, B2G         |
| <b>F2:</b> Perceived value and WTP                         | Low value and WTP        | Low or moderate value and WTP | Moderate or high value and WTP | High value and WTP     |
| <b>F3:</b> The complexity of SaaS purchase and usage       | Self-service             | Self-service                  | Moderate human involvement     | High human involvement |
| <b>F4:</b> Level of SaaS nicheness                         | Mass-market              | Mass-market                   | Niche-market                   | Niche Market           |

*pricing*, *Specialist SaaS pricing*, and *High-rise SaaS pricing*. While typology was based on our investigation of SaaS company pricing, it also appears reasonable from a general business model perspective as it represents different business models and pricing practices. These four pricing approaches are presented in Table 2 and described below.

**Mass-market SaaS pricing** refers to pricing practices often implemented in SaaS companies that offer mass-market solutions and operate in the B2C market and B2B market, focusing on small-sized companies. Such SaaS solutions might also be used in large companies as a part of private initiatives by small teams and individuals. The main pricing objectives for this type of pricing are customer acquisition, market share maximization, and winning the competition. A value-based pricing approach, to a large extent, is supplemented with market-based pricing. Companies of this type also often adopt the freemium model and a free model with monetization other than charging customers (i.e., advertisement). Adjusting for the level of company and SaaS solution maturity, the pricing-related processes can be highly formalized, driven by data analytics, and even automated.

**Generalist SaaS pricing** is often implemented in SaaS companies that offer mass-market services for customers on the B2B market, serving both small, mid-sized, and large companies. The main pricing objective for this type of pricing is customer acquisition, monetization and retention and winning the competition. Companies with this type of pricing employ a hybrid pricing approach based on a combination of value-based pricing and competitor-based pricing. While competing companies might evaluate and structure perceived value differently, the average amount of money charged per customer or account are quite similar. Instead of freemium in the case of mass-market SaaS pricing, companies with generalist SaaS pricing often use penetration pricing and sophisticated usage-based tiered pricing with multiple available options. Pricing-related processes are often formalized and driven by data analytics. Pricing automation may be employed; however, a sales team exists, and large companies can negotiate pricing individually.

**Specialist SaaS pricing** refers to pricing practices implemented by B2B SaaS companies that have a niche SaaS solution. The limited market requires more focusing on monetization and retention of existing customers with a high-quality service rather than acquiring new customers. Companies with this type of pricing implement value-based pricing in its canonical understanding with a fair match of prices to the value perceived. As a result, defining value metrics and assessing perceived value is crucial. However, most pricing-related processes are not usually formalized. Decision-making data can consist of direct feedback from customers. The basic pricing information might be publicly available; however, purchase processes typically involve interaction with the sales team.

**High-rise SaaS pricing** is implemented in companies aiming to serve large organizations with their SaaS solution. The main pricing objectives are customer monetization and retention along with sustainable business development. This type of SaaS pricing involves combining value-based pricing with cost-based pricing. The complexity of these SaaS solutions and the requirements for reliability and security means the associated costs might be quite high. Therefore, it is essential for companies with this type of pricing to ensure that revenue from a reasonably limited number of customers with high charges per account will cover these costs. Most of the pricing-related processes

are not formalized, pricing contract terms are discussed individually with all customers, and the required supplementary services define the final price to a large extent. Pricing information is not publicly available.

The literature discusses and proposes many factors that should be considered while designing and implementing pricing. As part of the multivocal study, we revealed 24 factors and classified them into four categories: Market, Company, Consumers, Product [1]. However, the impact of these factors and the aspects of pricing they affect remained unclear. Factors 1–4 correspond with the most cited factors as specified in [1]. While Factors 1 and 2 have a direct match, Factors 3 and 4 can be considered subfactors of a broader factor “functions and features” in the Product category.

Besides these four factors, product/company maturity, cost structure, and type of solution might affect and explain pricing practices in SaaS companies. However, our qualitative analysis suggests that maturity and costs could explain pricing practices ex-post rather than define them ex-ante. These factors set certain constraints and limitations on companies and managers; however, various companies overcome these constraints and limitations differently. As for the type of the solution, it was not clear how this could be determined and generalized from the case study as we covered only several categories of SaaS solutions from the extensive hierarchy (i.e., G2 software category hierarchy<sup>2</sup>). As a result, we decided not to incorporate these three factors in the typology.

## 5 Discussion and Practical Implications

The results of our study contribute to the understanding of pricing practices. We aimed to answer the research question of what types of SaaS pricing practices can be identified in a real-life context. To answer this question, we adopted a case-study research approach to explore pricing in fifteen SaaS companies. As a result, we developed a taxonomy of pricing practices. This typology can serve as a foundation for designing and establishing pricing practices in SaaS companies.

Our findings suggest that major factors of pricing in SaaS companies are the following: the targeted types of customers and market segments, the perceived value and willingness to pay for the SaaS solution, the complexity of the SaaS solution and its adoption by customers, and the level of nicheness of the SaaS solution. While the typology was based on an assessment of SaaS pricing practices, it can also be interpreted from the perspective of SaaS companies’ business models.

Several implications for SaaS companies can be derived from our study. Gaining a clear understanding of pricing complexity for a given SaaS business model is essential to its long-term viability. While certain types of SaaS pricing practices can be identified, there is still no silver bullet. Within each recognized type, practices may vary depending on many different factors (i.e., product/company maturity) and circumstances (i.e., regulatory constraints). Constant evolution and analytical-based experimentation with pricing might help to find the unique combination of pricing parameters that will allow the company to reach its objectives and ensure its long-turn market success.

The findings should be considered in light of limitations that may have an impact on generalizability. Our sample of SaaS companies was reasonably limited and not

<sup>2</sup> <https://www.g2.com/categories>.

randomly selected. Within our study, we felt that we reached a saturation point where the same patterns started recurring, and no new insights were obtained by performing additional interviews. We included several secondary cases to have large, mostly B2C SaaS companies in our sample for analysis. However, a more extensive and more diverse selection of cases may have yielded different findings.

Although this study provides valuable insights into SaaS pricing, we call for further research probing the question of designing and implementing SaaS pricing. Our qualitative study offered a taxonomy of SaaS pricing, but its generalizability is limited. With our previous industry survey [12], this study provides some solid ground for further research that could employ quantitative analyses based on a large industry survey.

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