KPMG

Transforming your SaaS business

A strategic guide for optimizing business performance

kpmg.com/SaaS

Contents

Featured Industry Contributors

"Revolutionary changes in technologies have come in waves – it brought us the mainframe, the client-server and the cloud. From our experience, the cloud is exciting in that it enables us to help our customers connect with their customers in a whole new way. As the pioneer in Cloud SaaS offerings, we have witnessed disruption across industries and the globe as people embrace this dramatically improved technology.

As a CFO, the big opportunity is how best to support our respective companies in these times of innovation and disruption, pivoting to new technology models and business models in order to meet the modern day expectations and demands of customers and investors.

This publication, Transforming your SaaS business, A strategic guide for optimizing business performance, serves as a useful guide to gain a deeper understanding of the drivers and metrics across the balancing acts of growth, margin expansion and long-term sustainability and competitiveness. Using this knowledge, SaaS and software companies have a greater opportunity to accelerate their business transformations, improve their competitiveness and amplify their future financial success."

– Mark Hawkins, CFO of Salesforce.com

In 2015, the worldwide market for SaaS software application sales will be $33.4 billion with projections to grow more than double that, to $67.2 billion, by 2019.

Source: Gartner, "Market Trends: Future Look at SaaS in the Application Markets", November 25, 2015

Executive summary

The Cloud Service Providers (CSPs) market, and more specifically the Software-as-a-Service (SaaS) market, has evolved considerably since its inception in the 1990s. Whereas it began as a niche offering, primarily used by start-ups that recognized the benefits of computing in the cloud, it has since gained strong adoption among enterprises around the globe.

With lower operational costs than on-premise software, quick deployments, rapid product upgrades, flexible configurations, seamless integration, scalability, high availability and inherent security, there are tangible, competitive advantages for adopting a SaaS solution.

As enterprise adoption has increased, the number of SaaS solution providers has grown commensurately. With varying operational models and capabilities, these providers can be grouped into the following categories:

1. **Pure-SaaS solution providers**: These companies were designed from the outset with a cloud/SaaS-based product offering. This category includes pioneering, cloud companies (Salesforce, NetSuite), as well as a number of startups and emerging high growth companies.

2. **On-premise software providers**: Responding to the increasing demand for cloud-based solutions, and to provide more predictability, some on-premise software vendors (Oracle, Adobe, Intuit) have transitioned to providing SaaS solutions, either as an additional offering or as a replacement of their on-premise portfolio. Companies that enjoy a large maintenance revenue stream have adopted a hybrid strategy where the on-premise and SaaS offerings coexist, while some are pursuing a complete business model transition to SaaS offering. Some providers have also started adopting a "freemium" licensing model, providing the software code for free and charging for services and support.

3. **Integrated Technology and Product companies**: These include integrated technology companies (IBM, HP and Cisco) and product companies (GE and Siemens) that have integrated SaaS offerings into their core businesses. With their subscription-based model, the SaaS offering allows them to earn recurring revenue streams.

A new way of doing business

The SaaS business model differs markedly from that of traditional software businesses, with unique challenges for product and pricing, research and development, sales and marketing, service and support and finance. As a result of these differences, SaaS companies must be managed differently than traditional on-premise software companies.

SaaS business drivers

As a result of this distinct management approach, the SaaS business requires a different set of drivers and metrics to measure business performance and efficiency, for each *type* of SaaS company — pure-SaaS, on-premise software company, integrated technology/ product company—weighing the significance of these metrics differently**.**

"Transforming your SaaS business" is thorough and comprehensive. It's always good to step back and remember the strategic rationale for some of the choices we work with day by day. As the article describes, I believe the SaaS model is a better way for customers to use software and for companies to build and deliver it, as it actually enables faster development, delivery and adoption."

—Neil Williams, CFO of Intuit

"Transforming your SaaS business" is a complete tutorial and describes the proper metrics and measures needed to have successful SaaS business. All the metrics described are important to have a successful SaaS company. The key metrics I focus on are Growth in Customers, Growth in ACV, Growth in Deferred Revenue and Growth in Cash Operating Cash Flow. These metrics help the company focus on improving the value of the business."

—Steve Cakebread, CFO of Yext

This paper highlights the transformational priorities and critical challenges for the SaaS business, with an underlying goal of providing a framework for achieving long-term success.

For more information about this publication, or to learn how KPMG can help your Cloud (SaaS) business, please contact us:

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Metrics Blueprint for SaaS Businesses: A Strategic Framework

This publication provides a strategic framework for increasing growth, profitability and sustainability for the SaaS business. We present strategic drivers along with key metrics used to assess performance at each stage in the business lifecycle — launch, scale/optimization and stabilization (see illustration immediately below; highlighted metrics are "must haves" for success).

Because of their inherent complexity, these drivers and metrics must be measured and interpreted correctly in order to be applied effectively — whether internally, externally or both. Throughout this publication, we describe these metrics in detail and explain how to incorporate them into a successful business strategy, providing calculation

methodology for each metric in the appendix.

The road to success
Successful implementation of the metrics blueprint is a top-down challenge for SaaS companies, which must review and transform their existing enterprise performance management frameworks and operating models.

Key stages of growth	Launch ▶	Scale and Optimize ▶	Stabilize ▶
Strategic Drivers			
Growth	**Customer Growth** – **Customer Lifetime Value** – Number of customers **Revenue Growth** – Total Contract Value – Backlog – **Annual Contract Value (ACV) and Average ACV** – Bookings – ACV to Billings ratio – **Recurring Revenue (ARR/MRR/QRR)** – Average Revenue per User or per Account – Deferred Revenue – Time to recognize deferred revenue	**Customer Growth** – **Customer Lifetime Value** – Subscriptions/customer – Billings Customers **Revenue Growth** – Total Contract Value – Backlog – **ACV and Average ACV** – Bookings – Calculated Billings – ACV to Billings ratio – **Recurring revenue** – Average Revenue per user or per account – Deferred revenue – Time to recognize deferred revenue	**Customer Growth** – **Customer Lifetime Value** – Billings/customers **Revenue Growth** – **ACV** – Bookings – Calculated Billings – **Recurring revenue**
Profitability	**Costs** – **Customer Acquisition Costs** – Research & Development Costs/Sales – Sales costs/Sales – Marketing costs/Sales **Margins** – **Recurring Margins** – Gross Margins – Service Margins Mix **Cash flow** – **Cash flow from operations** – Operating cash flow margins – Net cash per share – Free Cash Flow – Months up-front	**Costs** – Cost to Serve – Research & Development Costs/Sales – Sales costs/Sales **Margins** – **Recurring Margins** – Gross Margins – Service Margins Mix **Cash flow** – **Cash flow from operations** – Operating cash flow margins – Net cash per share – Free Cash Flow	**Costs** – Cost to Serve **Margins** – **Recurring Margins** – Gross Margins **Cash flow** – **Cash flow from operations** – Operating cash flow margins – Net cash per share – Free Cash Flow
Sustainability	**Sales Effectiveness** – **Growth Efficiency Index** – Sales and marketing efficiency – Lead Velocity Rate – Sales cycle length – Average Contract Length – Renewal Rate – Customer Acquisiton by Channel – Typical acquisiton path – Leads-to-trial conversion rate – Trial-to-paying-account conversion rate **Retention** – Customer churn – **Gross revenue churn** – Quick Ratio **User adoption** – Products per customer – Number of features accessed per customer – Net Promoter Score – Altitude metric	**Sales Effectiveness** – **Growth Efficiency Index** – **FTE's drivers (i.e. ARR/Sales FTEs)** – Sales and marketing efficiency – Lead Velocity Rate – Sales cycle length – Average Contract Length – Renewal Rate – Leads-to-trial conversion rate – Trial-to-paying-account conversion rate **Retention** – Customer churn – **Gross revenue churn** – Dollar-based Net Expansion Rate **User adoption** – Products per customer – Number of features accessed per customers – Volume and type of SupportTickets Raised – Net Promoter Score – Altitude metric	**Retention** – **Gross revenue churn** – Net revenue churn – Dollar-based Net Expansion Rate **User adoption** – Volume and type of Support Tickets Raised – Net Promoter Score

Background

Evolution
of an industry

SaaS installed workloads
represent 50% of
the total cloud workload and are
growing at a compound
annual growth rate
of 34% (2014-2019)

Source: Cisco Global Cloud Index: Forecast and Methodology, 2014-2019

IDC predicts the share of SaaS
globally will grow from
20% in 2015 to
30% by 2019

Source: IDC, Worldwide SaaS and Cloud Software 2015–2019 Forecast and 2014 Vendor Shares, Doc #257397, August 5, 2015

Background: Evolution of an industry

The Software-as-a-Service (SaaS) market has grown considerably while undergoing significant change since the late 1990s, when it began as an alternative way of delivering software.

While the earliest SaaS offerings included a handful of major players such as Salesforce and NetSuite, the market is now very competitive, with a wide variety of business models.

The adoption of SaaS is in large part attributable to the number of competitive advantages that it offers compared to a traditional software licensing model, such as more flexible configurations, reduced costs that are more predictable, and faster deployments.

As the corporate adoption rate of SaaS grew, the industry moved from edge applications to core, with a proliferation of providers which developed SaaS offerings for an expanded field of domains, including HR, talent management, finance and accounting. Today, Customer Relationship Management (CRM), Enterprise Content Management (ECM), Customer Experience Management (CEM) and Enterprise Resource Planning (ERP) are the most profitable SaaS offerings. As per Gartner's estimates, Business Intelligence (BI), digital content creation, office suites and CRM comprise high-growth areas (year-on-year growth between 25-45 percent in 2015).*

* Source: Gartner, "Market Trends: Future Look at SaaS in the Application Markets", November 25, 2015

While the SaaS market keeps growing, a number of new considerations are shaping the industry, given the key role scalability, high availability, security and data residency play in the decision criteria for adopting SaaS in an enterprise environment. Data residency, for instance, can have a significant impact on global SaaS operations, as illustrated by the recent decision by the European Court of Justice (October 2015) to overturn the Safe Harbor agreement between the EU and US, requiring additional measures to transfer EU cloud data to the United States. As SaaS providers become more mature, enterprise SaaS implementation projects are also becoming larger in terms of scale and scope. Some providers have begun integrating social media components into their offerings, a differentiating element in what is increasingly a highly competitive SaaS market.

With global corporate demand for SaaS solutions growing steadily, a growing number of solution providers (on-premise software providers and integrated technology and products companies), have entered the SaaS marketplace, each with a goal of delivering greater value, increased revenue and the ability to monetize intellectual property.

"Transforming your SaaS business' provides a fantastic framework for management teams and investors on how to measure and evaluate a SaaS business through the key stages of growth. SaaS businesses are fundamentally different than traditional software companies given customers don't own or have the burden of operating the software. As a result, how you build and operate the software, support it, sell it, and bill for it requires alignment across the entire organization. This guide concisely lays out the key considerations and metrics to measure each step of the way."

— Mark Culhane, CFO of
    Lithium Technologies

The evolution to the digital marketplace has set the stage for a Buyer-led economy. Transforming your business to the Cloud is essential to compete in this new digital marketplace. The Cloud completely disrupts the old market methods for competing and communicating."

— Bob L. Corey, CFO of
    CallidusCloud

The primary categories of SaaS providers include the following:

1. Pure-SaaS solution providers

Pure-SaaS providers are "born in the cloud", which means that their product offering was designed to be cloud/ SaaS–based from the outset.

Most pure SaaS providers began as technology start-ups, and many of them went public after recording rapid growth and maturity. The 2015 estimated median sales growth for U.S-based public emerging software companies was 47 percent, according to Goldman Sachs.

Pure SaaS solution providers are often rewarded for their first-mover advantage as well as the fact that their solutions were built with a cloud native delivery model. As a result, they have enjoyed higher valuations, a reflection of their primary business model attributes:

A. Exponential growth, particularly in the early years, partly due to the compounding impact of renewals and add-on sales

B. Predictable revenue streams, including annuities

C. Long-term profitability (margins in the short terms are invested in growth), supported by economies of scale within the SaaS business model

Pure SaaS providers may face critical operational challenges, including:

– Vendor solvency is a vulnerability that impacts both the customer and provider. SaaS providers must therefore track cash flow metrics closely, particularly during the launch phase. This becomes less of an issue as they scale and become established market players.

– Contract and Service Level Agreements requirements are likely to require a robust contract management cadence for both customer and provider. For SaaS providers, this may also include requests for periodic data backup.

With the above in mind, below are the key transformational priorities and "must have" metrics that pure SaaS solution providers should consider:

Types of offerings

Horizontal offering: specific product aimed at a broad number of customers in multiple industries

Vertical offering: complete solutions tailored for customers in a specific industry

Competitive edge

Cloud experience, no on-prem legacy issues, cost benefits, flexibility and scalability

Providers Examples

– Salesforce	– Medallia
– Adobe	– Yext
– Netsuite	– Lithium Technologies
– RingCentral	

Key transformational priorities

1. **Developing a modular service-oriented architecture** to support new technologies and features and allow scalability

2. **Adopting cloud-based subscription platforms and billing & pricing systems**

3. **Elaborating cloud specific sales compensation plans**, carefully set goals and index on relevant SaaS metrics

4. **Building and nurturing a robust partner ecosystem**

5. **Adopting an integrated approach in operating the product, sales and marketing functions throughout the product release cycle, to iterate faster**

"Must Have" Metrics

– ACV/ ARR on a disaggregated basis

– Recurring gross margins

– ARR/Sales FTEs

– Growth Efficiency Index

– Customer Lifetime Value

– Gross churn

– Customer Acquisition Cost

– Cash Flow from operations

Note: highlighted metrics are the new SaaS specific metrics to be considered

> "The thing that surprises many investors and boards of directors about the SaaS model is that, even with perfect execution, an acceleration of growth will often be accompanied by a squeeze on profitability and cash flow.
>
> Inherent in the amortized revenue model in SaaS is a longer delay between investments in capacity and the uptick in recognized revenue driven by that capacity. To oversimplify a bit, a new SaaS sales rep will simply cash more paychecks before he/she delivers revenue than the same rep in a perpetual model. Investors need to be prepared to see some P&L and cash flow metrics turn down when things are going really well. The counterintuitive corollary, of course, is that when growth levels off or slows, margins and cash flows tend to improve."
>
> — Ron Gill, CFO of NetSuite

2. On-Premise Software providers

A key consideration for on-premise software providers is to respond to the increasing customer demand for cloud-based software solutions.

Companies that enjoy healthy maintenance revenue streams have begun adopting a hybrid strategy where the on-premise and SaaS offerings coexist.

Some companies that are primarily software license-driven are transitioning to a business model that includes cloud/SaaS. Others are still evaluating their options to determine the most favorable business model moving forward.

Some providers have started adopting a "freemium" licensing for open source intellectual property model, as a variant of the on-premise model. They in essence provide the software code for free but charge for services and support, in what can best be described as a services model.

As a result of their original business model dynamics, on-premise software companies have a challenging, strategic course-correction to execute. However, companies that have successfully navigated this transition have prospered, creating enormous shareholder value.

Following a transition to the cloud and an annuity business model, Adobe experienced a 3.5-fold increase in shareholder value. Meanwhile, blue chip software giants including Microsoft, Oracle and SAP have all begun a similar transition to the cloud with a SaaS-based model for their core product offerings.

Types of offerings

Offerings can combine on-premise and SaaS delivery.

Cloud-based versions of flagship on-premise software suites, mostly horizontal offerings

Competitive edge

Software market experience, installed base, know-how and brand equity, flexibility in offerings depending on the customer's needs

Providers Examples

– Microsoft	– Intuit
– Oracle	– Autodesk
– SAP	– TIBCO
– Adobe	– CallidusCloud

Over the past five years, we have successfully transformed our Creative product business from a shrink-wrapped CD software offering to a cloud-based subscription model. During the business model transition, our profit and loss statement was not the best measure of the health of our business. The faster we transitioned our customers to a subscription model, the faster our revenue fell in the short-term.

We shared new metrics to help analysts better measure the health of the business as we went through this transition. We shifted their focus toward the building blocks of our new Creative Cloud business—number of subscriptions, average revenue per user (ARPU), annualized recurring revenues (ARR), and revenue that was contracted and either deferred or in backlog (off-balance sheet).

We were transparent and over-communicated with Wall Street. We provided both short- and long-term metrics, including three-year compound annual growth rates for revenue and earnings per share to give investors a way to measure our progress and to have a view of what the business would look like after the transition.

— Mark Garrett, CFO of Adobe

With the above in mind, below are the key transformational priorities and "must have" metrics that on-premise software providers should consider:

Key transformational priorities

1. **Adopting a cloud first strategy in developing and deploying products which look and feel like a web-browser customer experience and that can be used across multiple devices**

2. **Managing and reporting both product offerings** (on premise and pure SaaS), **taking necessary steps to mitigate offer cannibalization**

3. **Operating the product, sales and marketing functions closely throughout the product release cycle: integrated approach rather than a functional/ decoupled approach**

4. **Transforming the finance organization,** attracting better FP&A talent, acquiring the right technology (i.e. subscription based billing engine), communicating the right metrics internally and externally

5. **Building the right sales team to sell annuity based product offering** and retooling the existing sales compensation plans accordingly

"Must Have" Metrics

– **Number of subscriptions**

– Average revenue per account

– Revenue (License vs Maintenance)

– Maintenance renewal base and changes in maintenance renewal base

– **ARR**

– **Deferred revenue**

– **Backlog**

– **Net Dollar Based Churn**

Metrics that need to be considered and that are perhaps not being tracked, are in bold font

3. Integrated Technology and Products companies

Integrated technology and product companies are also including SaaS with their core business offerings. Historically, these companies would embed or perpetually license their software as part of a solution bundle. They are now offering software as a separate service that includes multiple licensing options. SaaS offerings allow them to monetize their deep expertise and intellectual property in turn delivering stable recurring revenue streams that include a high margin and build higher market valuations. The strategy has strengthened their customer relationships by shifting the narrative from spend/cost to business outcomes.

Integrated Technology companies	
Types of offerings	Software (including VoIP, operating systems, and analytics), hardware (laptops, chipsets, switches, routers, etc.),licensing of intellectual property
Competitive edge	Highly technical specialization in their field, size and reputation of offerings
Providers Examples	– IBM – HP – Cisco Systems – Qualcomm

Product companies	
Types of offerings	Highly niche software offerings, typically IP-based solutions
Competitive edge	High degree of specialization and domain knowledge. Investment in technology aligned to core business
Providers Examples	– GE – Siemens

"Cisco and our partners have been working with industries from retail to manufacturing to government to help them digitize, disrupt and unlock business value. At Cisco, we are transitioning our business model from a hardware focused model to one focused more on software, services and new consumption models to meet the needs of our customers. This transition involves a delicate balancing act to ensure our existing revenue streams co-exist with and support SaaS and new business model revenue growth. A successful transformation would need to span the spectrum from offerings, to routes to market, to business and support functions - all these need to align to execute on our digitization strategy and better support client organizations. We have focused on increasing internal collaboration across functions to ensure sales, product, services and support organizations are working in concert to ensure we create a unified portfolio that our partners can digest and drive digitization opportunities across companies, industries, cities and countries"

— Kevin Bandy, Chief Digital Officer of Cisco

Background: Evolution of an industry (continued)

With the above in mind, below are the key transformational priorities and "must have" metrics that integrated high technology companies and product companies should consider:

Key transformational priorities

1. **Adopting cloud-based subscription platforms and billing & pricing systems**

2. **Leveraging the partner ecosystem to enable cross-sell/ up-sell to the existing install base**

3. **Retooling sales compensation plans to include a cloud/ SaaS component**

4. **Managing and reporting product lines and offerings, including SaaS**

5. **Investing in enhanced customer on-boarding and servicing**

"Must Have" Metrics

– Gross Margin/ Net Margins

– Revenue Growth

– Research & Development as a % of revenue

– Sales & Marketing expenses as a % of revenue

– **Deferred Revenue growth**

– **ARR and ARR Growth**

– **Backlog**

– **Subscription per customer**

Metrics that need to be considered and that are perhaps not being tracked, are in bold font

Business Model Dynamics

A new way of doing business

Business Model Dynamics: A new way of doing business

Solution providers offer distinct business models that reflect their offering (SaaS vs. traditional on-premise software delivery)

The offering differentiation impacts a number of factors, including product and pricing, sales and marketing, the way service and support is provided and the finance function operations. As a result, SaaS companies need to be managed differently than traditional on-premise companies.

Product and pricing

	Traditional On-premise Offering	Saas offering
Architecture	– Single-tenant – Software installed directly on customer's IT infrastructure	– Multi-tenant – Direct access to cloud-based application
Release Cycle	Generally up to twice a year	Typically 6 to 8 weeks
Pricing	Upfront license fee as well as ongoing support fees	Recurring subscription fees
Speed of deployment	Several months	Weeks or days - can be longer depending on complexity of integration with other systems
Upgrades	Scheduled, large-scale, typically once a year, time consuming and can cause significant disruption	Ongoing, more frequent upgrades throughout the year
Customer Experience	Traditional software user interface and experience, desktop based, single location access	Browser-based user interface and experience, accessibility across multiple devices
Security and Compliance	Baseline cost for product security, access control and compliance with applicable regulations	Higher cyber security and compliance costs to ensure data privacy and residency

Prior to a product release, SaaS solution providers seek to enhance key capabilities, such as hosting and system management, commerce platforms and business support systems. They also look to enhance the customer experience, investing in the product architecture, design and user interface. Mobile first design has become the norm, a response to the increasing customer demand for accessibility across multiple devices and platforms.

Additionally, SaaS solution providers are transforming their design to a modular, service-oriented architecture, one that supports new technologies and features and is readily scalable. They are also transforming their billing systems, making them more agile to accommodate pricing models changes (such as per seat vs. usage based billing) while also providing real-time reporting that creates visibility into usage patterns. Some SaaS providers are actively looking for billing engines designed to support the subscriptions model.

"I believe all enterprise software will move to (or be born in) the cloud for a few reasons. First, the cloud provides limitless compute and storage elasticity, which is not only a superior cost model, it also enables work that was previously prohibitive to complete. Second, the explosion of mobile devices over the last 10 years has fundamentally and permanently changed the way companies get work done at all levels. And third, the cloud is an inherently collaborative platform, which is increasingly important for all businesses. These are business driven imperatives, which is why I believe all enterprise software moves to cloud/mobile. It is important to recognize that the business metrics that companies (and investors) need to focus on are dramatically different for cloud/mobile businesses"

— R. Scott Herren, CFO of Autodesk

Key Success Factors for pure SaaS offerings

– Modular architecture and scalability as a design principle at the outset, to manage Cost to Serve (CTS) and achieve benchmark gross margins at maturity
– Invest in user interface and user experience, mobility (access across multiple devices)
– Spend continuously on innovation and security
– Invest to ensure uptime and availability and plan sufficiently for business continuity and performance
– Invest in proper billing systems customized for metered usage
– Invest in application performance monitoring
– Adjust for variability between product pricing and volume

Sales and marketing

	Traditional On-premise Offering	Saas offering
Marketing and lead generation	Tradeshows, conferences, print, outdoor, e-mail	Significant events and tradeshows, website, Webinars, social marketing, content marketing, referrals, Search Engine Optimization (SEO)
Sales Model	Small to Midmarket Customers – High touch, partner/ reseller based sales, shorter sales cycle	Small to Midmarket Customers - Low touch, land and expand, short sales cycle
	Enterprise Customers - High touch, direct sales force, lengthy sales cycle	Enterprise Customers - High touch, direct sales force, lengthy sales cycle
Sales Compensation Plans	Traditional sales incentives and compensation plans structured towards bookings and revenue recognition	Elaborate compensation plans, with significant focus on ACV and multipliers/ decelerators based on service mix, billing, contract length and renewal

Sales Cycle

Typically, the sales cycle for traditional software providers is a lengthy one that incorporates a high-touch, direct sales process.

The cycle is considerably shorter for SaaS providers, due to lower upfront costs (operational effort, financial commitment, and switching cost), quicker deployments, and seamless integration within the customer's IT environment. This has enabled business teams within an organization, rather than centralized IT, to directly buy SaaS solutions. SaaS companies also have a strong support base for retention, due to multiple touch points within the organization that create cross-sell and up-sell opportunities.

For enterprise customers, the sales cycle may not vary between on-premise and SaaS. Enterprise customers have significantly more complex IT and operational environments (multiple geographies, large data/ record volumes, preferred vendor criteria, SLAs). Additionally, their higher license requirements and integration costs result in longer decision timelines that involve multiple stakeholders.

Marketing Campaigns

SaaS providers often employ a "land and expand" business strategy, applying marketing strategies that focus on customer acquisition. Those strategies include combining digital marketing (websites, social media, search, e-mail) with integrated campaigns (events, sponsorships, media and analyst relations)

Common practices for increasing customer acquisition and referrals include engaging prospects in free trial programs, providing them with on-boarding and assistance trials, and inviting them to participate in online user communities.

Providers that have a hybrid on-premise and SaaS offering are faced with the additional challenge of creating different marketing tactics to support each business model. Some SaaS providers combine both traditional, on-premise and SaaS incentives, both for the internal sales force as well as for prospective clients. SaaS providers directly appeal to customers of on-premise solutions with aggressive pricing comparisons that focus on the Total Cost of Ownership (TCO) benefits of working with a SaaS provider.

Sales and marketing expenses for traditional Software vendors

20-30% of revenue

Sales and marketing expenses for pure SaaS vendors

40% of revenue

KPMG Research"

Partnership support

Both on-premise as well as SaaS providers leverage partnerships to support their market growth. The partner ecosystem for on-premise providers is mature with attractive market opportunities across the customer lifecycle that address system implementation, maintenance and upgrades.

Building and nurturing a robust partner ecosystem is critical for SaaS providers looking to expand internationally, and scale their operations more rapidly. Partners earn SaaS-related compensation in a number of ways, including incentive-based referral fees, revenue sharing of implementation and professional services, and joint go-to-market initiatives.

Sales incentives

Sales compensation programs are designed to align with the SaaS sales life cycle. To maximize sales performance, SaaS providers must set the right goals, balancing growth and sales capacity, while considering all compensation mechanisms, including equity and options, to retain sales team talent. These programs should focus on ACV, rather than bookings, as the key metric that drives compensation.

Additional factors that impact sales compensation include new customer bookings, contract length, upsell and renewal. Finally, in light of its subscription business model and associated payment models (advance vs. arrears, annual vs. quarterly), SaaS solution providers are increasingly aligning commission payouts to customer billing. This alleviates the cash flow strains that SaaS providers face in the early years of operation when the costs of acquiring customers are higher.

On-premise and SaaS providers offer distinct commission structures and costs. As a result, sales commissions must be managed effectively to enhance market penetration while limiting cannibalization.

Key Success Factors for pure SaaS offerings
– Understand and identify customer core versus edge buyers
– Attract sales talent to sell an annuity-based product offering, need for robust lead management
– Develop the right sales compensation plans to incentivize and retain sales talent
– Leverage non-traditional marketing channels
– Build and grow partner ecosystem with a viable incentive mechanism
– Invest heavily on customer acquisition and retention (most start-ups do not have the kind of reputation and brand value that on-premise providers enjoy, making customer acquisition a key priority)
– Maintain high engagement across multiple customer touch points and incentivize S&M for higher engagement
– Optimize costs while maintaining high customer base growth and strong renewal rates

"Customer acquisition and retention is critical to the SaaS business model. Sales teams have a crucial role to play and must be incentivized accordingly, with tailored compensation plans. The objective is to not only generate the best and most profitable customer relationships, but also to retain and grow these customer relationships over time. Sales compensation plans therefore need to be indexed on ACV, the key metric for SaaS, with multipliers or decelerators to align behaviors around other metrics such as Average Contract Length, Billing terms and Up-sell. The sales effectiveness drivers detailed in this paper are thorough and provide a good guide to the tracking metrics relevant to SaaS businesses."

— Mike Kourey, CFO of Medallia

> "Good product development and support processes always involve metrics, but in the world of cloud solutions, metrics are often one of the keys to success. Cloud architectures can provide the most direct, unfiltered, actionable insight into how your product is used. In a cloud context, you also have a level of control over the DevOps environment that doesn't apply to deployed software (at least not for the provider), which means you can put those metrics to good use in constantly optimizing your offerings. On the flip side, you also take on the operations responsibilities for scalability and performance, adding a new dimension and new challenges to the solutions you provide."
>
> — Matt Quinn, CTO and EVP Products & Technology at TIBCO

Service and support

	Traditional On-premise offering	Saas offering
Delivery	On-premise	Cloud-based support
Installation	Core customization	Configurations/extensions
Professional Services	Maintenance, training	Training, integration, customized onboarding
Support	Phone	Multi-channel, self-service, phone

The SaaS service delivery model impacts data management, privacy and residency, and data security, both for core business and support functions. As mentioned previously, data privacy and residency laws and their associated requirements can significantly impact global SaaS businesses. Keeping abreast of public sentiment[1] and understanding developing legislation is critical to leverage potential benefits while mitigating adverse impacts. Furthermore, the current compliance landscape in which SaaS solution providers operate is broad, with a number of reporting standards.

Compliance includes SOC 1 & 2, ISAE 3402, and SOX 404

The SaaS delivery model typically requires the availability of 24/7 support, as the service is provided remotely. The nature of service and support for SaaS can include a range of proactive tools (such as application performance monitoring and usage monitoring) and self-service tools (such as chat applications, Wikis, user communities, and e-mail). SaaS providers use value-added, professional services beyond implementation as a key element of differentiation. The speed and ease of implementation are important customer selling points.

SaaS solution providers are focused on creating an agile service and support infrastructure, which enables business growth expansion while providing differentiated and tailored services to customers.

Key Success Factors for pure SaaS offerings

– Invest in ensuring application security

– Understand compliance requirements in market of operation and incorporate into product features

– Invest significantly in hardware (data centers) to support hosted applications delivery

– Invest in 365/24/7 support

– Invest in self-service tools and channels

– Build value-added professional services layer (especially true for start-ups)

1. See for example the EU-US Safe Harbor agreement that has been overturned. The EU data can still be transferred and stored in the US, with appropriate model clauses formalized between providers.

Finance Organization

	Traditional On-premise offering	Saas offering
Short-term revenue and earnings guidance	Meeting short-term and long-term revenue targets are significantly dependent on the sales management team execution – as a significant proportion of bookings translates to revenue upfront relating to license revenue	Meeting short-term revenue and earnings targets are significantly dependent on FP&A team execution (i.e., quality of financial modeling and forecasts) – as revenue predominantly comes from existing bookings (including Churn) and change in deferred revenue. Sales management team should continue to focus on Net ACV to accelerate growth

The Finance organization and CFO play significant roles in SaaS businesses, as they are the principal drivers for evolving internal behavior and communicating externally. As a result, the finance function should actively support business strategy execution. Identifying, tracking and communicating (both internally and externally) the most relevant metrics is paramount to achieving this objective; the finance function needs to adapt and structure itself accordingly, attracting the appropriate talent, with seasoned FP&A team members capable of execution (quality of financial modeling and forecasts)

as well as pricing and profitability analyses.

The Finance function must also develop and adopt relevant tools and systems to support the SaaS business model. Several companies have invested in systems and infrastructure geared to support this model, such as new billing engines, revenue recognition systems and revamped ERP suites.

The ability to support and interface with core business activities is essential. To this end, SaaS solution providers depend on their finance function to transform their

Quote to Cash (Q2C) infrastructure in order to support rapidly growing business and customer expectations. Integrating sales and business operations can support growth in sales, order accuracy, and ultimately customer satisfaction.

Finally, the finance function has a role to play in supporting the sales teams and helping align their sales compensation programs to the SaaS business imperatives. As a business partner with the right tools and analytics, the finance function is uniquely positioned to support and drive changes in the business model.

Key Success Factors for pure SaaS offerings

– Adopt tailored billing (i.e. subscription based billing), invoicing, revenue recognition processes and systems (billing engines, revenue recognition systems, etc.)

– Identify and attract seasoned finance profiles

– Identify, define, develop and track the right SaaS business metrics

– Invest in flexible and dynamic analytics and automation tools

– Communicate around the right metrics internally, to change and drive new behaviors

– Communicate the right metrics externally, for analysts to understand and value the SaaS business performance

Business Drivers

Optimizing performance for success

Business Drivers: Optimizing performance for success

With their unique business model, SaaS companies cannot be evaluated by traditional performance metrics. Accurate assessments of financial and operational health require an understanding of the drivers relevant to the SaaS business, along with the meaning that they convey and their relative significance as the business evolves from launch to a stage of stability.

SaaS businesses face significant financial losses in their early years, as they must invest heavily in sales and marketing to acquire new customers. Due to their revenue model, they derive returns from those investments over a longer period of time compared to traditional software companies, who employ a more predictable maintenance model.

As the SaaS business scales up, customer acquisition costs (CAC) cause it to burn cash rapidly. The recovery is slow, which may in turn lead to a cash flow problem. Losses typically grow proportionally to

the pace of growth and gradually, with sufficient scale, the business begins an optimization process. Eventually, the business generates sufficient profit/cash to cover its costs and provide cash for additional investment. At that point (all other costs remaining equal), the business stabilizes and becomes profitable.

Stages of growth of a SaaS business

Key Stages of Growth	Launch	Scale & Optimize	Stabilize

For a SaaS business, the choice between growth and profitability is critical, yet delicate. Balancing longer-term economics with short-term profitability is key for success.

As SaaS is typically a winner-take-all market, growth becomes a priority. However, investments made for growth can decrease profitability in the short-term. In order to be valued and rewarded accurately, it is important for SaaS solution

providers to select the right growth investments and communicate to the market about the profitability impact for each as well as the outlook during each stage of growth (through to maturity).

Many SaaS stakeholders, especially those that are unfamiliar with the SaaS business model, do not understand this growth vision. As a result, they decrease market growth initiatives in the early, loss-making years, thereby impeding future growth

opportunities. To preempt this challenge, it is essential to assess the performance of the SaaS business using metrics that are relevant to each stage in the SaaS business lifecycle. The choice between growth and profitability, for instance, is addressed for key drivers in the following sections, as well as within the summary, which covers combined metrics analysis (Unit Economics Framework).

The following three dimensions provide a lens through which these drivers can be categorized:

Growth	Profitability	Sustainability

Each of these broad indicators comprises several components. For example, customer growth and revenue growth are sub categories of growth, and each requires its own set of metrics.

Business Drivers (continued)

The three categories are broken down into sub categories as follows:

Accelerating Growth

Customer Growth Drivers

CLTV	Subscriptions per Customer	Billings per Customer
Number of Customers		

Revenue Growth Drivers

TCV (Total Contract Value)	Bookings	Average Revenue per User or per Account
Backlog	Calculated Billings	Deferred Revenue
ACV (Annual Contract Value)	ACV to Billings Ratio	Time to Recognize Deferred Revenue
Average ACV	ARR/ MRR/ QRR	

Optimizing Profitability

Cost Drivers

CAC (Customer Acquisition Costs)	R&D Spend as a % of sales	Marketing Costs as a % of ARR
CTS (Cost To Serve)	Sales Cost as a % of ARR	

Margin Drivers

Gross Margins	Recurring Margins	Service Margins Mix

Cash Flow Drivers

Cash Flow from Operations	Operating Cash Flow Margins	Months Up-front
Free Cash Flow	Net Cash per Share	

Securing Sustainability

Sales Effectiveness Drivers

Growth Efficiency Index	ARR quota per FTE	Renewal Rate
Sales & Marketing Efficiency	Quota FTE by Channel	Customer Acquisition by Channel
Sales & Marketing Expense/$ bookings	LVR (Lead Velocity Rate)	Typical Acquisition Path
Sales FTEs for Acct. Growth/BD Sales FTEs	Avg. time for new sales recruit to book a deal	Leads-to-trial conversion rate
ARR/Sales FTEs	Sales Cycle Length	Trial-to-paying-account conversion rate
Bookings/Sales FTEs	Average Length of Contract	

Retention Drivers

Customer Churn	Net Revenue Churn	Quick Ratio
Gross Revenue Churn	Dollar-based Net Expansion Rate	

Customer Experience

User Adoption Drivers

Products per Customer	Volume and Types of Support Tickets	Altitude Metric
Number of Features Accessed per Customer	NPS (Net Promoter Score)	

One must evaluate and apply these metrics across the SaaS business life cycle in a weighted fashion, as their relevance and significance vary depending on the stage of growth.

First, one must define each category and its associated drivers, charting their relative importance along the SaaS business life cycle. Refer to the appendix for details on how these drivers are calculated.

For the essential drivers to track – CLTV, Churn and User Adoption - we have included proposed levers to guide actionable strategies.

Although these drivers can be tracked internally, some are tracked by external stakeholders.

As the external metrics are based on publicly available information, they may not provide sufficient insights to the management team to manage and drive growth effectively. However, they are critical to track, as the results are expected to meet or exceed guidance provided to investors and stakeholders. Internal teams should also track **external metrics**.

The external or internal nature of each metric is identified, using the following legend:

Metrics tracked internally

Metrics tracked externally

Investors and analysts will examine external metrics over time (annually, quarterly), tracking them for a group or portfolio of companies. They typically use trends, year on year growth and few investors use **Trailing Twelve Months (TTM)** timeframe to effectively compare companies performance, given fiscal year calendars may differ among individual companies within a portfolio.

1. Growth

Growth, as measured by customer count and revenue, is the most critical performance indicator for SaaS companies, especially in their early years of operation. The rate of growth is linked to financial success and used to measure competitive positioning in the market, first-mover advantage, and the capacity to capitalize on the network effect and move rapidly up the SaaS business model life cycle.

1.1 Customer Growth

There are three ways to achieve customer growth:

A. Increase customer base (number of customers)

B. Maximize sales penetration with each customer (subscriptions/ customer)

C. Maximize Customer Lifetime Value (CLTV)

Initially, SaaS companies focus on increasing their customer base, tracking drivers such as the number of customers and subscriptions per customer. However, these drivers do not accurately assess customer growth. Selling SaaS is a long-term proposition; therefore **Customer Lifetime Value (CLTV)** is a far more insightful metric to use.

CLTV is a holistic metric that includes insights into other key drivers, such as **Annual Recurring Revenue (ARR)**, **Cost to Serve (CTS)**, and **Churn** (more details on cost and churn drivers in following sections 2 and 3).

CLTV can be difficult to calculate, especially since it includes variable metrics associated with the customer, such as churn and gross margin. However, it is a critical metric for a SaaS company because it can help focus on customers that offer the highest average lifetime value (LTV). It is also a critical input on where to peg the Customer Acquisition Cost (CAC), as the CLTV represents the return on the investment (CAC).

"Software as a Service (SaaS) is an industry still in its relative infancy. However, the inflection point for cloud has been crossed, and the adoption of SaaS solutions is set to increase significantly. Successfully balancing rapid growth and longer-term economics with short-term profitability is critical for success for public SaaS companies. The key concepts outlined in this publication including unit economics and the "Rule of 40" provide a sound foundation to measure and manage this delicate trade-off. At RingCentral, we have been unique in continuing to demonstrate high growth and concurrent substantial improvement in profitability."

— Clyde Hosein, CFO of RingCentral

Disaggregating and segmenting the customer base can provide powerful insights that can be leveraged to maximize growth.

Levers to Maximize CLTV	
Increasing Annual Contract Value (ACV)	– Growth – achieved through cross sell and up-sell – Product discounts to close deals – Controlling discounting practices to eliminate perpetual discounts
Lowering Costs	– Monitoring Cost to Serve expenses and Cost to Serve expenses as a percentage of Revenue – Controlling operational expenses by reducing customer/ account specific costs, and by optimizing infrastructure (data centers and colocation)
Increasing Customer Retention	– Proactively preventing and reducing customer churn – number of customers – Reducing dollar amount of churn – dollar value of churn

Customer Growth Drivers – Definitions

CLTV: Customer Lifetime Value	››	Estimation of the projected total gross margin value of a customer over the lifetime
Number of Customers	››	Number of customers who have given a financial commitment for usage of the service
Subscriptions per Customer	››	Includes the sum of all products subscribed by a single customer account
Billings per Customer	››	Monthly or annually, sum of billing per customer

During the launch phase, SaaS providers are focused on customer acquisition (CAC) and increasing customer subscriptions. During this phase, it is equally important to focus on the projected lifetime value of each customer by measuring CLTV.

As a SaaS business matures, while it may need to focus less on customer acquisition (and associated costs), it should continue to track the number of subscriptions per customer, at least through the scaling and optimizing phase: through renewals, farming the installed base becomes key after the initial growth.

As the business matures, providers should begin tracking billings per customer while continuing to track CLTV. The latter, as well as CAC, become easier to measure as more data points become available (it typically takes 6-12 months or more of operations for reliable data to be generated). Mature companies and providers implementing hybrid scenarios may find it challenging to track the CLTV and CAC, due to shared costs (both on-premise and SaaS costs), which require allocation.

A SaaS business should ensure that CLTV, in the steady phase, remains at least three times the value of CAC to ensure viability, especially since SaaS is a high-risk business where the impact of a technology shift is significant.

Key stages of growth	Launch	Scale and Optimize	Stabilize	Target range
CLTV		Measured across the SaaS business life cycle		More than 3 times CAC
# of customers	Measured essentially at launch			
Subscription/cust	Measured essentially at launch and scale			
Billings/customer		Measured essentially at scale and stabilize		

1.2 Revenue Growth

Revenue is a critical metric for a SaaS business. However, since revenue for SaaS delivery accrues and is recognized over time, it is important to analyze revenue by drivers or proxies, such as **bookings, calculated billings, recurring revenues, deferred revenue, and backlog**.

Backlog is derived from Total Contract Value (TCV) and represents bookings that have not yet been billed. As such, it is not yet included in deferred revenue (i.e., out periods of TCV not yet recognized in deferred revenue). Additionally, one should consider **the time required to recognize deferred revenue and backlog as revenue**.

Since revenue is recognized based on accounting standards, one must examine billing data. SaaS billings, can be paid in advance for a year or periodically throughout the lifetime of the contract, such as quarterly or monthly.

For a SaaS business, the timing of billing is important as it can alleviate the cash flow constraints that SaaS companies face in their early years. Generally, SaaS companies bill enterprise customers annual-in-advance with 30-day payment terms, and 30 to 45 days prior for renewals. Some companies offer recurring, auto payment options tied to a customer's bank account or credit card.

Total Contract Value (TCV) is the total value of the customer contract. TCV includes one-time and recurring revenue, but only the recurring revenue for the period specified in the contract (generally includes all years for which the substantive termination penalty is required to cancel the contract). SaaS companies bill customers annual-in-advance, which represents the Annual Order Value (AOV) and in some cases Annual Contract Value (ACV). Backlog represents deferred revenue from bookings that have not yet been recognized. Backlog metrics include the percentage of annual revenue recognized from contracts at the start of the year and the percentage of quarterly revenue recognized from contracts at the start of the quarter. Bookings and deferred revenue are further analyzed based on seasonality and in light of seasonal cash flow.

Investors in SaaS companies focus on calculated billings, which is calculated by adding quarterly revenue to the change in deferred revenue from the prior quarter to the current quarter. If a SaaS company is growing its bookings, either through new business or upsells/renewals to existing customers, billings will increase. Some investors believe that calculated billings, rather than revenue, is a better forward-looking indicator of the health of a SaaS company for two reasons:

(1) Revenue understates the true value of the customer because it gets recognized ratably

(2) Due to the recurring nature of revenue, a SaaS company could show stable revenue over a period of time (just by working off its billings backlog), which could make the business seem healthier than it truly is.

Some investors also further calculate **New Billings**, as the difference between current year billings and previous year billings multiplied by the renewal rate.

It can be challenging to use Calculated Billings as a metric, if a company employs non-standardized billings policies (i.e. when billing customers monthly, quarterly, annual-in-advance or three years in advance) or when they have time and material professional services revenue.

Annual Recurring Revenue (ARR), Monthly Recurring Revenue (MRR) and Quarterly Recurring Revenue (QRR) are similar drivers that measure the amount of revenue to be collected by a company over a stated period of time. They can be measured annually, monthly, or quarterly, and they are important for subscription-based companies as they show the value of contracts and the business as a whole. **The Average Revenue per User or per Account (ARPU or ARPA)** is also tracked, either per-month or per-year, as an additional measure of the amount of revenue generated per customer or customer account. Changes to ARPU/ ARPA need to be analyzed for underlying drivers - customer size, product mix, pricing to understand impact of controllable factors vs. competitive factors.

In cases where there is upfront billing without revenue recognition, solution providers treat the unrecognized portion of the billing as **deferred revenue**, which represents services booked and billed but not yet rendered.

This is a controllable factor for the company and provides a steady revenue stream in the near term. It is treated as a liability item in the balance sheet, which decreases over the life of the contract as revenue is recognized.

A SaaS company can show growth in deferred revenue if the average dollar amount over the remaining life of deferred revenues increases without the actual revenues increasing. Therefore, deferred revenue growth can provide a good picture of the company's health but only if it is considered alongside the average remaining life to recognize this revenue.

Looking only at the increase in deferred revenue is an unreliable indicator because it could reflect factors such as a change in billing terms (from monthly to an annual billing cycle), a change in customer mix (SMB to enterprise) or other factors.

Although the change in deferred revenue and calculated billings do not provide the best insights into growth drivers, external stakeholders still watch them closely. These external metrics, along with internal metrics, are relevant data points to accelerate growth.

Revenue Growth Drivers – Definitions

Driver	Definition
TCV: Total Contract Value	Total value of the customer contract
Backlog	Out year bookings not yet recognized in deferred revenue
ACV: Annual Contract Value	Annual Contract Value of a specific subscription agreement
Average ACV	Average Annual Contract Value of subscription agreements
Bookings	Sum of all closed deals in a particular year (usually an annualized number)
Calculated Billings	Sum of revenue during the period (i.e. a quarter) and change in deferred revenue
ACV to Billings ratio	Ratio of how much has been billed to the annual value of a particular contract – evaluation of billing patterns
ARR/ MRR/ QRR	Periodical recurring revenue over a specific period that does not include one-off fees
Average Revenue per User or per Account	Average revenue per user or account, either per month or per year
Deferred Revenue	Portion of a billing, liability on the balance sheet, which represents services that have not yet been provided
Time to recognize deferred revenue	Period of time over which services will be provided and recorded as revenue. A typical measure tracked is the % of contracts that are within 1 year

Metrics used to analyze bookings on a monthly basis:

A	New ACV
B	Upsell ACV
C (A+B)	Recurring ACV
D	Churn
E	Down sell/ Scope Reduction
F (C-D-E)	Net ACV

new customers

lost customers

During the launch phase, the number of customers and deal sizes are relatively small. Therefore, **Annual Contract Value (ACV)** and bookings can be a helpful predictor of future revenue growth. Bookings are analyzed as an annualized number since they may be tied to contracts with varying durations (month-to-month, annual, or multi-year subscriptions). The following components should be considered when performing an ACV analysis:

A. New ACV: ACV from new customer contracts, which is further analyzed to see what the business is buying and at what price

B. Upsell ACV: additional sales to existing customers, which include subscription upgrades/ complements/ expansion, to evaluate what upgrades have been acquired and at what price by existing customers

C. Recurring ACV: ACV from existing subscription contracts, which is further analyzed to see which subscriptions programs customers engage in, and subscription-based revenue trends

D. Churn: loss of customers and/or revenue during the month, analyzed to determine and ultimately alleviate churn factors

E. Down sell/ scope reduction: the portion of bookings attributable to offerings proposed to customers who renounce the initial purchase, or that reduce the scope of their current subscription/ service

F. Net ACV: ACV from new and existing customer contracts for a particular year, adjusted for lost ACV attributable to churn

Key stages of growth	Launch	Scale and Optimize	Stabilize	Target range
TCV/ Backlog	Measured across launch and scale			
ACV / Bookings	Measured across the SaaS business life cycle			**ACV: 100-200% growth**
Calculated Billings		Measured across scale and stabilize		
ACV to Billings	Measured across launch and scale			**Ratio 1:1**
ARR/ MRR/ QRR	Measured across the SaaS business life cycle			**Annual Growth of revenue: 25-36%** *(depending if provider public/ private)*
Average Revenue per User or Account	Measured essentially at launch and scale			
Deferred Revenue	Measured across launch and scale			
Time to recognize deferred rev.	Measured across launch and scale			

G. Number of new customers: Number of new customers acquired over the month, analyzed per channel/service offering/customer population

H. Number of lost customers: Number of customers lost due to churn over the month, categorized by the reason for renouncing the service offering

As the business enters the growth phase and begins scaling and optimizing operations, it begins collecting money from its customers, turning bookings into billings. As a result, the metrics that assume greater relevance at this stage are revenue (recognized and deferred) and calculated billings.

The ACV to billings ratio is also important and provides relevant insights during the launch phase. This ratio evaluates billing patterns and measures the billing efficiency for a particular subscription agreement by looking at the annual value of a contract and calculating the amount that has been billed to date.

Another indicator that one should monitor beginning with the launch phase is the Average Revenue per User (also calculated at Customer and Account level). As the SaaS business stabilizes into its maturity phase, it typically has implemented a series of annual recurring contracts, along with leads for new customers. To grow the existing customer base of annual recurring contracts, SaaS businesses focus on upsell and cross-sell opportunities, an effort to limit churn and increase billings. As the business stabilizes billings and revenue recognition stabilizes, and the rate of deferred revenue eases (unless there are changes to multi-year billings).

2. Profitability

One should analyze the profitability of a SaaS company in terms of costs, margins and cash flow, along with the related drivers for each of these segments. This section also covers the need to balance growth and profitability and introduces the "Rule of 40" concept.

2.1 Costs

One of the biggest determinants of SaaS profitability is **Customer Acquisition Cost (CAC)**. CAC is generally not included in calculating CLTV, as CLTV equals the gross margin from the customer over the customer lifetime. However, CAC is compared with CLTV to determine and optimize the CAC payback period.

CAC is akin to an investment cost to acquire a customer for a SaaS business, and estimating the CLTV enables the business to assess payback and appropriate ROI on this element.
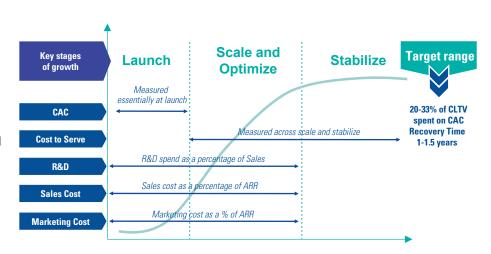
Cost to Serve (CTS), generally expressed as a percentage of revenue, is another important cost component that impacts profitability. To effectively manage CTS, SaaS companies should have effective product and database server architecture (modular architecture). A complex and ineffective architecture could lead to an inability to achieve benchmark gross margins. Costs as a whole are often large and staggered, while revenues are more predictable.

R&D spend as a percentage of Sales compares the strength of companies, as it reveals the effectiveness of research expenditure relative to overall sales (capitalized and amortized R&D costs, form part of this analysis).

Sales Cost and **Marketing Cost as a percentage of ARR** show the relative amounts of sales and marketing expenditure to a company's annual recurring revenue, or steady income stream.

Cost Drivers – Definitions

CAC: Customer Acquisition Cost (per Customer)	➤	Total cost of sales and marketing efforts to acquire a new customer, including the cost of on-boarding
CTS: Cost to Serve	➤	Costs of initial investment, all running costs, ongoing customer service, upgrades, and client relationship
R&D spend as a % of Sales	➤	Total amount spent on Research and Development expressed as a percentage of total sales revenue
Sales cost as a % of ARR	➤	Total cost of sales expressed as a percentage of annual recurring revenue
Marketing cost as a % of ARR	➤	Total cost of marketing expressed as a percentage of annual recurring revenue

In the initial stages of a SaaS venture, CAC can be greater than projected CLTV. However, as the business grows, CLTV increases, with profitable businesses capable of maintaining a CAC that is considerably less than CLTV.

Similarly, CTS can be significantly higher in the first two stages of growth. It typically stabilizes later in the business life cycle, depending on the solution provider's ability to leverage economies of scale and market maturity. However, in some situations, it might be difficult to stabilize CTS if a SaaS company has a complex product or database server architecture. In order to ensure CTS stabilization, the company should develop a more modular architecture from the outset, incorporating scalability as a design principle.

In the early stages of the SaaS business life cycle, in an effort to increase brand awareness and credibility, providers will likely choose to service enterprise customers, However, this approach carries its own risks, and one should undertake these large projects only if they do not compromise profitability and resourcing. In such cases, management may need to track these large projects separately, depending on the maturity of the SaaS company.

2.2 Margins

Gross Margins costs include application hosting costs, customer on-boarding costs, customer service costs, R&D amortized costs vs. capitalized costs and third-party fees (such as software license and data fees).

While gross margins are important, SaaS businesses should analyze recurring and non-recurring margins separately.

Recurring Margins are the profits that are generated from running the SaaS subscription business. As investors favor companies with a strong cash flow, the recent trend for emerging software companies is to expand operating margins.

Service Margins Mix can help ascertain the economic value of partnerships, as it measures the contribution to gross margins of third-party service providers and partners. At launch and scale, it is crucial to monitor and evaluate the value proposition of partnering with third-party service providers.

Margins Drivers – Definitions

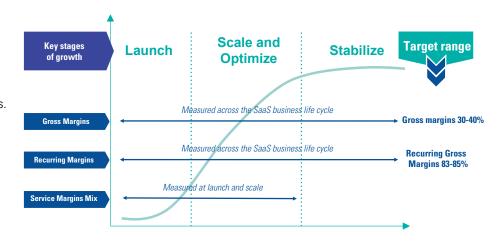|		
Gross Margins	Gross margins are calculated as the difference between subscription revenue and costs (including application hosting costs, etc.) over subscription revenue
Recurring Margins	Recurring profits generated from running the SaaS business
Service Margins Mix	In-house team contribution to gross margins versus third-party service providers contribution to gross margins

2.3 Cash Flow

As they expand, SaaS companies face increasing cash flow challenges. At the same time, investors now turn their attention to a healthy cash flow that is linked to increased operating margins.

While it is critical for SaaS companies to know when they will generate positive cash flow, the ideal timing of achieving a break-even status is imprecise. The timing of cash collection – such as upfront billing, where the SaaS solution provider bills the customer the entire value of the contract at the beginning of the subscription period – can help in synchronizing receipts with expenses. However, only established solution providers can command such

billing terms when contracting with their customers. Smaller providers looking to bill in advance usually need to incentivize their customers through price discounts and promotions.

Cash flow from Operations and Free Cash Flow need to be measured throughout the life cycle of a SaaS company, and is as important as analyzing revenue and profitability drivers. Heavy investment in the early stages of a SaaS business results in lower operating cash flows. It is therefore important to track this driver so that the business can prepare for future growth and profitability.

Cash on hand provides opportunities to expand and increase investment in other areas, such as expanding research and development or increasing marketing

spend. A strong cash flow appeals to investors and demonstrates a healthy financial picture.

However, investors also consider the impact of pre-paid multi-year deals while calculating operating cash flow margins, and adjust for cash from long term deferred revenues.

Net Cash per Share is a measure of a company's cash divided by the number of shares outstanding. It represents the percentage of a firm's share price available for immediate spending on other business activities, such as research, marketing, or other financial activities. It is also an important liquidity measure that signals if the company would need access to capital in the near term.

Foreign Exchange

A global customer base can make SaaS businesses more vulnerable to FOREX risks and currency fluctuations, which can in turn impact revenue and profitability. The impact becomes more pronounced with growth and scale, as companies expand their global reach and geographic diversification.

SaaS providers with large international operations may want to report their financial performance on a constant currency basis, using constant exchange rates (market analysts and investors use constant currency basis for their analyses and valuations).

Impact on deferred revenue – Deferred revenue is recognized based on the foreign exchange rate at the date it is recorded in the financial statements. Future revenue is correspondingly recognized at the same rate as when deferred revenue was originally recognized in the financial statements. For example, a strong U.S. dollar at the time deferred revenue is recorded in the financial statements, would result in relatively lower revenue recognized in future periods, even if the U.S. dollar subsequently weakens. As such, it may be important to disaggregate ACV, deferred revenue and revenue by U.S. dollar
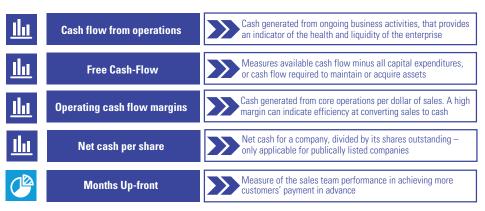
denominated and foreign currency denominated customer contracts, calculating growth rates using constant currency.

Hedging strategies – Currency fluctuations can have adverse impacts on the operating income and cash flow of SaaS solution providers that operate internationally. Different hedging strategies, in terms of revenue and cash flow, are available to mitigate such volatility.

Such an approach requires strategic planning, with accurate currency exposure forecasting (which currencies, what volumes and over what horizon) and cash flow at risk evaluation (which factors in correlations between currencies).

Financial instruments, such as options and forwards, are usually combined to hedge forecasted sales in the normal course of business and reduce the risk that earnings and cash flows will be adversely affected by exchange rate fluctuations. Hedging programs must be reviewed on an ongoing basis to ensure effective coverage of forecasted cash flows (and any changes to forecasts), and proper calibration that matches current foreign exchange market conditions and outlook.

Cash Flow Drivers – Definitions

Cash flow from operations	⟫	Cash generated from ongoing business activities, that provides an indicator of the health and liquidity of the enterprise
Free Cash-Flow	⟫	Measures available cash flow minus all capital expenditures, or cash flow required to maintain or acquire assets
Operating cash flow margins	⟫	Cash generated from core operations per dollar of sales. A high margin can indicate efficiency at converting sales to cash
Net cash per share	⟫	Net cash for a company, divided by its shares outstanding – only applicable for publically listed companies
Months Up-front	⟫	Measure of the sales team performance in achieving more customers' payment in advance

As mentioned previously, SaaS businesses make significant upfront customer acquisition investments at launch to secure their customer base. Cash inflows from these investments are generated over time, which is different from the upfront cash flows of the on-premise license business. This creates a cash flow crunch for SaaS providers.

The following chart shows the impact of customer acquisition cost for one customer and the amount of time required to cover this initial investment (for illustration purposes, a Customer Acquisition Cost of $5000 is considered, with a $450 monthly subscription gross margin).

Cumulative cash flows for one customer

This example reveals negative cash flows for the first 11 months following customer acquisition for one customer, with the first positive cash flow occurring in January of the following year. This cash flow crunch is a necessary prerequisite for growth.

The more customers that are acquired, the greater the rate of growth and positive cash inflows, as illustrated in the graph below:

Cumulative cash flows for multiple customers

- Cumulative cash flows for 1 customer
- Cumulative cash flows for 5 customers
- Cumulative cash flows for 20 customers

Business Drivers (continued)
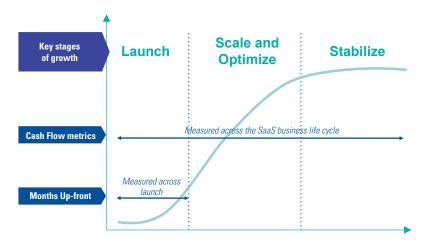
One way to alleviate this cash flow crunch is to incentivize customers to pay in advance. This can be done through financial incentives, such as discount programs. This is typically feasible only for existing customers, as new customers are less likely to accept advance payment terms.

Getting more customers to pay in advance can help to reduce churn. The switching costs for these customers are higher, which increases customer lock-in. **Months Up Front** is the metric used to monitor the sales team performance in achieving more customers paying in advance. It can be used to incentivize team members as they seek to sign customers to such a program.

Once the installed customer base has generated sufficient cash to cover the initial acquisition costs, profits and cash flow will become positive, with the return on investment proportional to the initial buy-in. As customer acquisition growth increases, profits and cash flow balance increase commensurately. To further accelerate growth, providers may pursue another round of investment.

As the prospect of additional losses and cash flow shortfalls may make investors wary, it is vital for both start-ups and industry veterans to communicate in advance of a new round of growth acceleration, in order to secure sufficient funding for the company's future and sustained growth.

2.4 "Rule of 40"

There is a trade-off between growth and profitability. One can target profitability (and reduce spend/ focus on growth) or focus on growth (at the expense of short term profitability). This is primarily because of Customer Acquisition Costs for customer growth, while the Customer Lifetime Value takes longer to realize and recoup the initial investments.

As the business matures and enters the "scale & optimize" phase, a new set of rules can be introduced that gauge performance and help navigate growth and profitability.

One such rule, which evaluates the relationship and balance between growth and profitability, is known as the "Rule of 40". This rule considers the sum of growth rate and profitability:

Used by market analysts and investors, Rule of 40 proposes that a combination of growth and profitability yielding 40% is

desirable. This rule recognizes the short-term impact on profitability due to a focus on growth. Based on this rule, a company in the growth phase with an 80% growth

Rule of 40% = Year over year revenue growth + pre-tax operating margins or free-cash flow

rate that produces 40% negative margins is acceptable. Given the premium attached to growth for a SaaS business, the inverse relationship—80% margins and negative growth— is viewed unfavorably by investors.

While one can consider this ratio at launch, the optimum point at this stage would need to be as high as possible and not benchmarked at 40% – which is the threshold when operating at scale.

3. Sustainability

Monitoring the long-term sustainability of a SaaS business is critical for success, with particular focus paid to sales effectiveness, retention and user adoption.

3.1 Sales Effectiveness

Because the sales and marketing function in a SaaS company works differently from that of traditional software providers, measuring sales effectiveness in a SaaS business is crucial for understanding its performance metrics. As noted earlier, treat enterprise customers differently when considering sales effectiveness. Undertaking large projects early in the SaaS business life cycle boosts brand awareness, but one must weigh this against execution risks, profitability, and the diversion of resources away from product development.

Sales Effectiveness Drivers – Definitions

Driver	Definition
Growth Efficiency Index	Measure of revenue growth efficiency - relationship between costs incurred to increase growth and actual revenue growth
Sales and Marketing Efficiency	Measures the effectiveness of Sales and Marketing spend in the previous period to generate revenue growth in the current period
Sales and Marketing Expense/ $ bookings	Measure of how much a company spends on Sales and Marketing (S&M) for $1 of booking
Sales FTEs for Account Growth/Sales FTEs for BD	Number of sales staff devoted to account growth divided by the number of staff tasked with new business development
ARR/Sales FTEs	Annual recurring revenue divided by the number of sales staff
Bookings/Sales FTEs	Average number of bookings per member of sales staff
ARR quota per FTE	Annual Recurring Revenue quota, by the number of total staff
Quota FTE by Channel	Sales quota for each member of staff, categorized by channel
Average time for new sales recruit to book a deal	Time taken for a new member of the sales staff to make a booking from the time starting at the firm
Lead Velocity Rate (LVR)	The growth in the number of qualified leads month-over-month
Sales Cycle Length (Days)	Time from initial interaction to the completion of the sale,
Average Length of Contract	Average duration in months or years of a typical subscription contract
Renewal Rate	Measure of achieved renewals for all contracts up for renewal (in terms of customer or contract value)
Customer Acquisition by Channel	New customers and subscribers categorized by the method or channel of booking
Typical Acquisition Path (% of cohort)	Grouping and categorization of sales to subscribers by their type and method of becoming a subscriber
Leads-to-trial conversion rate (funnel metric)	Measures the success ratio in persuading leads to try out the product
Trial-to-paying-account conversion rate (funnel metric)	Measures the success ratio in converting trial subscribers into customers

The Growth Efficiency Index (GEI) is a measure of revenue growth efficiency across launch and scale, a composite metric that combines cost and revenue. This index looks specifically at the relationship between costs incurred to grow the company and actual revenue increase (if any). Identifying these costs means differentiating between the recurring spend used to support day-to-day operations (Cost of Goods and Services, General and Administrative Expenses) and growth spend (namely sales and marketing expenses, as well as customer success expenses – which consists of a dedicated team for on-boarding new customers, managing customer references and so on). Achieving a GEI less than 1 is desirable, as this indicates that revenue growth exceeds costs incurred. A GEI greater than 1 is an indication to recalibrate S&M spending.
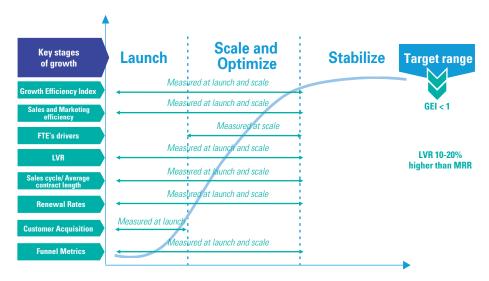
Tracking and benchmarking the GEI is particularly useful to more precisely calibrate growth efforts and goals. It reflects, at a high level, the sales and marketing team's effectiveness at generating revenue growth.

Sales and marketing spend efficiency is also measured across launch and scale, like the GEI. This metric investigates the relationship between sales and marketing spend and revenue growth across different periods. Typically, this ratio examines spend incurred in the previous period and the resulting revenue growth, a metric that reveals sales and marketing efficiency.

As the business graduates into a growth phase, optimizing the sales force remains critically important. At this stage, solution providers begin mapping **FTEs (Full Time Employees) dedicated to new customer growth (hunting)** and **FTEs servicing existing client accounts** (farming), along with linking investment in sales force optimization to financial success via drivers such as **ARR/ Sales FTEs**.

As the business stabilizes into a phase of maturity, the focus shifts to exploring up-selling and cross-selling opportunities with existing customers. At this point, metrics such as FTEs dedicated to up-selling (with a view on increasing subscription revenue) and FTEs dedicated to cross-selling (with a view on increasing product revenue) gain significance – especially among larger SaaS solution providers, who have sufficient manpower to staff dedicated teams.

In the launch phase, the focus is on hunting and acquiring target customers. In this phase, it is more important for SaaS solution providers to invest heavily in their sales force and marketing teams, making sure that a steady stream of qualified leads is generated and converted to paying customers in the least amount of time.

Lead Velocity Rate (LVR), or Lead Momentum, measures the growth in the number of qualified sales leads month-over-month, on a monthly basis. This real-time metric is a revenue and growth trend indicator, which needs to be tracked alongside other forward-looking metrics.

LVR is helpful when measured against sales growth. Assessing the relationship between the two can detect underlying and structural problems. As sales leads are generated, sales growth should proportionally increase. If sales leads are secured but sales growth does not follow proportionally, this may indicate that either the sales team quality is decreasing or the product is not keeping pace with the competition. Either way, corrective measures should be pursued.

Average Contract Length is a useful metric to track from launch through the scaling phase. The SaaS business model favors a longer contract, as it secures a more sustainable cash flow. As such, average contract length is a good indicator of the contract portfolio's health and can also serve as a metric on which to incentivize the sales teams.

Renewal Rates is used to assess the health and performance of a SaaS portfolio. Customer retention is as important as customer acquisition. The renewal rates, whether looking at number of customers or contract value, is the flipside of customer churn. A higher renewal rate indicates marketing and sales effectiveness and is also an indicator of customer loyalty.

As mentioned previously, customer acquisition is key during the launch phase. To maximize acquisitions, one must understand the target audience behavior and track the effectiveness of marketing and sales campaigns. This allows the enterprise to devise strategies and test customer-acquisition channels, directing customer acquisition costs and efforts on the channels that yield the most customers and the steadiest stream of revenue.

Finally, from launch through scale, funnel metrics measure the sales team effectiveness at converting a lead into a paying customer across the sales cycle. The leads-to- trial conversion rate measures the success ratio in persuading leads to try out the product (i.e. visitors-to-trial could be an appropriate replacement for a company where the strategy aims at maximizing visitors). The trial-to-paying account measures the conversion rate to the next stage, or how a lead becomes a paying customer with a signed subscription contract.

3.2 Retention

Churn, or the loss of customers and/or revenue during a set period of time, can significantly impact the growth of a SaaS company. Although churn may not be as meaningful during the launch phase, as a company grows, even a relatively low rate of churn can substantially impact revenue and earnings. **Because of its impact on growth, churn is a must-track metric across the SaaS business lifecycle.**

Customer Churn refers to the number of customers that have discontinued their subscription during a given period of time. One must distinguish between revenue- or dollar-based churn and customer-based churn for an accurate analysis of performance.

Net Revenue Churn measure the revenues lost during a given period due to the loss of customers or lower run rate due to reduced features or users. A loss of non-subscription-based- or shorter-term products/services can lead to revenue churn.

Customer churn is dependent on the size and total number of customers. As customers vary by size and value, there is an important distinction between losing a top customer versus losing a bottom customer. For a company with varying product pricing, dollar-based churn is a more relevant indicator of performance. Dollar-based churn is also a key metric for larger companies, as the focus is to accelerate growth, which can be achieved through negative revenue churn (which occurs when the expansions/up-sells/cross-sells to existing customer base exceeds the loss of revenue from churn).

Additional tools and analyses are required in order to fully understand and mitigate churn. One such tool is **cohort (customer group) analysis**, which regroups and evaluates new customers for a given month. This analysis is performed month-to-month and over the lifetime of the relationship with the customer. It offers a comparative analysis between different customer groups and provides insight into seasonality patterns, evaluating the effectiveness of measures aimed at alleviating churn (such as new product features) and how different customer groups react to such actions. Cohort analysis also provides insight into the number of customers that are lost over a period of time while identifying when churn stabilizes.

Dollar-based Net Expansion Rate (DER) is another measure of customer retention, measured at one point in time. It presents a comparative analysis of aggregate revenue for existing customers (those in place for at least 12 months) for the current year against the prior year. It provides an image of revenue sustainability and is a marker of the quality of customer relationship over time. DER can also be completed by a measure of how much support subscription revenue is added over time.
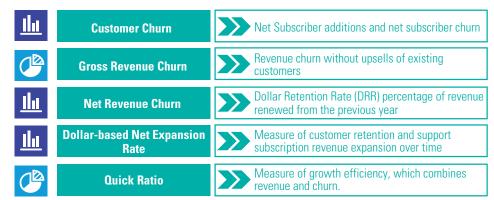
The "Quick Ratio" provides a view of a SaaS business's growth efficiency. It combines two SaaS metrics (revenue and churn in this case), and is used by investors and internal management to quickly benchmark growth performance.

Business Drivers (continued)

Customer churn is measured in terms of net subscriber additions (net increase in the number of subscribers) and net subscriber churn (change in the number of subscribers), and it reveals the number of customers that were lost or did not renew against the total number of subscribers for a given period. SaaS businesses tend to focus more on customer churn in their early years, as their objective is to acquire as many customers as possible to gain economies of scale. Churn Prevention is the success rate in reducing churn over a period of time.

Revenue Churn and dollar expansion rates become important in the later years as the company becomes mature enough to up-sell, cross-sell and drive deeper engagement within each customer account. For measuring revenue churn, a Net Revenue Churn or **Dollar Retention Rate (DRR)** metric is sometimes used. DRR includes the benefit of up-sells, cross-sells and price increases based on GAAP subscription revenue recognition. If the DRR is 100 percent, it means the company has renewed 100 percent of its revenue from the previous year. DRR has significant flaws because it considers both lost revenue from customer cancellation (i.e., lost customers due to unhappy customers) as well as down-sell and up-sell to existing customer (satisfied customers). As such, it would be better to disaggregate the data and analyze **Gross Revenue Churn** to determine how much revenue is lost without considering up-sells, and understand the causes of customer cancellations and down sells. Gross revenue churn will always be higher than net churn because it cannot have

Retention Drivers – Definitions

Customer Churn	⟫⟫	Net Subscriber additions and net subscriber churn
Gross Revenue Churn	⟫⟫	Revenue churn without upsells of existing customers
Net Revenue Churn	⟫⟫	Dollar Retention Rate (DRR) percentage of revenue renewed from the previous year
Dollar-based Net Expansion Rate	⟫⟫	Measure of customer retention and support subscription revenue expansion over time
Quick Ratio	⟫⟫	Measure of growth efficiency, which combines revenue and churn.

a negative value. This metric should be analyzed across the entire SaaS business lifecycle.

Finally, the "Quick Ratio" provides a snapshot of a SaaS business's growth efficiency, particularly during its launch phase. The commonly accepted target

is 4, which means that for every $1 of revenue lost during a specific month, $4 should have been added. As the business scales, it becomes more difficult to achieve the target of 4. This ratio is therefore primarily to be used at launch as an additional metric for revenue growth.

Levers to Minimize Churn	
Up-Sells and Cross-Sells	– Increase the revenue from a client by exploring additional opportunities once a relationship has been established – Demonstrate additional value to current offerings used by customers
Usage/overage-based Billing	– Optimal charging and pricing set for usage-based billing models – Incorporate levels of price sensitivity
New Customer Acquisitions	– Continue to grow the overall customer and revenue base organically to reduce the impact of any customers that are lost
Longer-term contracts	– Reduces the turnover and risk of losing customers on a frequent basis with greater lock in for contract duration – Establishes longer relationships for guaranteed business
Focus on Risk Segments	– Staff top talent to customers with low NPS scores to increase retention
Channel/Product Segmentation	– More accurately segment customers to assess churn risks while highlighting strategies for retaining business
Customer Engagement	– Customer interaction and engagement on customer product needs and the ways to retain their business – Feature sets that are sticky – determine what parts of the product are beneficial for retaining customers and reducing churn
Customer Retention	– Constantly track customer satisfaction and analyze reasons for contract cancellation and customer churn – Track user adoption, a leading indicator of customer satisfaction > for specific metrics, please refer to section 3.3

3.3 User adoption

To sustain its business, a SaaS company needs to closely monitor account health and user engagement. Lack of user adoption can lead to churn, and SaaS solution providers need to watch several drivers that reflect how well the software is being used after the subscription begins. During the launch phase, drivers such as number of sign-ups, number of log-ins, and users on free trial are important to monitor and analyze, as they reveal customer acquisition and adoption. However, from the point of view of sustainability, any metric around user adoption should only consider the base of monetized usage or users who drive revenue.

Levers to Maximize User Adoption	
Product Usage	– Analyzing product usage to improve usability – Increased trial conversion to full subscription, and encouraging full and early use of the product during a trial
Feature Usage	– Identify up-sell opportunities at early opportunities based on usage patterns and customer feedback
Volume and type of support tickets	– Analysis of issues experienced by users to help on product support and to determine fixes/patches that may be required – Develop products based on the needs and perceived limitations of current offerings
Net promoter score (NPS)	– NPS is a customer loyalty metric. This metric can provide insights into Leading practices and drive focus to issues revealed by lower scoring customers – A best practice guide can document learnings from successful strategies and be used as a reference for customer/account management

In the initial phases of a SaaS business, tracking **product subscription data** and **feature usage data** are critical. This can be either at an individual customer account level or for the business overall. As the business graduates into the growth phase and then into maturity, it becomes important to look at the volume and type of deployment and delivery support that existing customers seek.

This is a critical input for **product customization**, product R&D investment decisions, troubleshooting and upgrades. Across all stages, SaaS companies should track **Net Promoter Score** to gauge overall customer satisfaction.

Altitude is another metric to be tracked across launch and scale. The Altitude metric is particularly useful as a measure of service usage with regards to customer entitlements, and it can help calibrate offers as well as pricing. Any measure of usage can be employed, whether it is data volume (i.e. GB/ months) or computing cycles (i.e. monthly SQL cycles). In terms of entitlements, revenue can be put into perspective with the measure of usage selected. For example, some companies define and track altitude as "Monthly SQL cycles / monthly revenue". This defines upper and lower thresholds to determine the levels at which usage customers receive value for the money paid (whether they are paying too much or not using the service enough).

User Adoption Drivers – Definitions

	Definition
Products per customer	Number of products that each individual subscriber purchases. An attach rate is sometimes disclosed, which also measures success in increasing products per customer
Number of features accessed per Customer	Proportion of total features that are used by subscribers
Volume and type of Support Tickets Raised	Total number of instances raised to support, the types of issues encountered and study on timings and variety of problems
Net Promoter Score (NPS)	Customer loyalty metric that is scored between -100 to +100, with positive scores considered good
Altitude metric	Usage of service (data volume, number of users, computing cycles) / entitlements (monthly revenue)

Key stages of growth	Launch	Scale and Optimize	Stabilize
Products and Features	Measured across launch and scale		
# of features accessed per customer	Measured across launch and scale		
Volume and type of support		Measured across scale and stabilize	
NPS	Measured across the SaaS business life cycle		
Altitude metric	Measured across launch and scale		

Summary – Unit Economics

The previous sections defined essential SaaS business and financial drivers, how to interpret them and when to track them across the SaaS business lifecycle. Tracking and analyzing these metrics individually is essential for assessing performance across specific dimensions— growth, profitability and sustainability. There are several areas of inter-linkage between these dimensions. This dynamic requires a holistic analysis to identify trade-offs and consequences of strategic decisions and thus support business strategy execution.

One such holistic framework approach is known as customer or **contract unit economics, which supports decision making in the early stages, particularly at launch.** This framework highlights key relationships between metrics and the impact of investment opportunities on growth, profitability and sustainability. Customer or contract unit economics uses **lifetime unit margin** as a marker to measure customer profitability in terms of the costs incurred in acquiring, servicing and retaining the customer.

Lifetime unit margin considers the following key metrics:

- **CLTV**
  Customer Lifetime Value, which is a key Growth metric,

- **CAC**
  Customer Acquisition Costs, which is a key Profitability metric,

- **CTS**
  Cost to Serve, which is a key profitability metric,

- **Churn**
  or attrition, key sustainability metric.

Lifetime unit margin can also help assess short- and medium-term impacts of a strategy or acquisition on growth, profitability and sustainability. These key business decisions come with consequences, and companies need to understand the trade-off and opportunity costs of selecting one strategy over another.

For instance, an investment to accelerate growth in the SaaS business would impact near-and medium-term profitability (higher CAC), but would support longer-term sustainability, given the winner-takes-all nature of the market. Similarly, investing in higher-touch customer support might penalize profitability in the near term (higher CTS), but increase lifetime unit margin and customer revenue as it reduces churn.

Unit economics can also provide broader insights in terms of strategy. Consider a SaaS provider looking to make an acquisition. Target companies can either be acquired to support growth or increase profitability, depending on the strategy pursued. Unit economics can help determine the lifetime unit margin of the acquiring company in either scenario (all other factors remaining unchanged).

The key to success in the SaaS business is to grow volume while leveraging scale to optimize costs, thereby ensuring healthy cash flow streams and minimizing churn. Tracking and analyzing individual metrics is key for tracking success across individual dimensions. However, unit economics provides a holistic framework for analyzing business performance and supporting strategy execution.

Leading Practices

Critical steps for achieving success

Leading practices: Critical steps for achieving success

For all SaaS companies—from startup to global market leader, like Salesforce—the journey needs to be navigated carefully. The latest financial results of traditional software stalwarts such as Oracle and SAP indicate that despite a rocky SaaS start, with numerous challenges, these companies can achieve success. Tremendous opportunities exist for companies that can integrate relevant business model benchmarks to gain a competitive advantage.

SaaS providers can expect myriad challenges at nearly every stage of growth, including planning, budgeting for resources and forecasting, and when measuring the overall performance of the business against its forecasts. Companies that have successfully navigated the SaaS life cycle offer a number of Leading practices to avoid these pitfalls. While the transformation experience and success mantra is unique to every business and depends largely on seamless execution, these Leading practices can provide directional guidance to both existing SaaS companies and those considering a transition to SaaS.

Strategic Planning

Using traditional software business drivers on a SaaS business can lead to unwise business decisions. Understanding the specifics of the cloud model, and more specifically the SaaS model, is paramount to identifying and setting up the right business drivers. For example, under the cloud model, valuation is driven by subscriptions and bookings, rather than total revenue. Anticipating this can alleviate operational challenges and enable setting the right controls and governance around the new focus drivers.

Not only does the right set of drivers need to be identified, but ownership for each set also needs to be assigned to different business units. Communication of these drivers is also key. Traditional software providers that decide to transition to a SaaS business model will need to communicate their new SaaS drivers and forecast markers internally and externally to secure key stakeholder buy-in.

The sales, marketing and the finance organizations need to be designed to support a SaaS business.

SaaS providers often neglect the importance of user adoption and feedback. As a result, despite offering a compelling product, many SaaS providers lose enterprise customers because of low adoption. SaaS delivery allows tracking usage closely to draw meaningful insights on usage behavior patterns. Neglecting this opportunity and overlooking user feedback can be detrimental to success.

On the other hand, by exclusively emphasizing the core product offering, the SaaS provider loses focus on supporting systems, such as on-boarding, billing and provisioning, all critical for sustained adoption.

Leading practices

Get leadership buy-in for a long-term cloud vision

– Decide on the right performance metrics

  - Assign ownership of these metrics

  - Fix goals and targets (markers) against these metrics and chart an implementation roadmap

  - Plan for continuous and seamless monitoring of the metrics as well as user feedback

  - Communicate around the metrics (also externally in the case of public companies

– Plan for revamping existing business processes – particularly the sales and marketing organization and the finance organization

– Set up supporting systems that enhance customer experience

– Build sophisticated usage analytics in subsequent upgrades and releases

Budgeting and forecasting

Forecasting success for a SaaS business is limited by the amount of visibility management has on recurring revenues, churn, renewals, and new subscription growth. Precision in churn prediction should be a high-priority area, as unforeseen churn impacts growth and adds to costs, thereby impacting both margin and cash flow. By closely watching usage patterns, providers can better predict (and prevent) churn.

Cost calculations typically draw the attention of solution providers. However, these may underestimate less obvious cost elements, which can result in significant repercussions. Cost of compliance is one such element. In some highly regulated industries (healthcare, for instance), misunderstanding compliance requirements (HIPAA, for instance) may lead providers to understate cost. Similarly, underestimating CAC or CTS could derail the budgeting exercise.

The market distinguishes short-term guidance misses for on-premise providers versus those for pure SaaS solution providers. An on-premise solution provider typically misses its short-term guidance because it lacks sufficient new bookings (the result of market softening, changing customer preferences, increased competition or sales force effectiveness). For a SaaS solution provider, short-term revenues and earnings are driven predominantly by existing bookings. Missing the revenue and earnings guidance by a SaaS solution provider is viewed as a finance/FP&A issue and may create market credibility challenges that impact longer-term forecasts. It is therefore essential to invest in FP&A skills and capabilities to develop robust financial forecasting models.

SaaS players across size and stage of growth may not be fully utilizing internal and external data to draw actionable insights on churn management.

Leading practices

– Look out for all hidden costs and cash burn rate

– Keep a strong eye on CAC and CLTV, as well as churn

– Develop visibility on recurring revenue rhythm

– Maintain visibility on new subscription growth

Reporting and governance

SaaS businesses need to monitor performance against relevant KPIs on a continual basis. Two factors can impede this process:

– Not inculcating a culture of measurement

– Failing to implement disciplined financial processes

The lack of a measurement culture can lead to inaccurate data and metrics while placing increased administrative burdens on employees. The lack of a robust financial process–one that enables end-to-end control on invoicing, collections and renewals and that closely tracks revenues and expenses – will lead to operational hardships when the need for measurement arises.

SaaS solution providers require sufficiently mature frameworks, tools and systems that can handle standard reporting tasks while being flexible enough to extract data for customized insights. Customized dashboards should be designed to provide timely performance reporting to different business groups.

Granularity of reporting is another important requirement many SaaS providers tend to overlook. SaaS businesses are comprised of many interrelated parts; tracking each can be daunting. For instance, although business & investment costs are integrated in traditional cost reporting, the two should be separately measured to drive more informed decision-making.

If SaaS solution providers fail to invest in proper reporting tools that measure and manage the relevant drivers at the required level of granularity, it will face sustainability challenges. It is critical to evaluate the trade-off between the effort required to gather detailed information and the value that such insights provide. This balancing approach helps prioritize metrics and reports to grow and sustain the business.

Leading practices

– Inculcate a culture of measurement

– Develop disciplined financial processes

– Consistently prepare and distribute different dashboards tailored to the different parts of the business

– Ensure timely performance reporting

Operational transformation priorities

The unique nature of the SaaS business necessitates a focus on key operational areas. This is especially true for existing product/ software companies that are entering the SaaS market, as they must contend with business models and go-to-market models specific to the existing business as well as the new SaaS business.

Priority areas include:

– **Billing models**: SaaS offerings typically include monetization models such as subscription, utility and Enterprise Licensing Agreements (ELAs). There are variants including Freemium as well as Try and Buy designed to attract new customers. The variety of billing models coupled with payment options warrants careful consideration.

– **Pricing and profitability**: The pricing models for SaaS offerings are complex and include volume, bundle, renewal and customer-based discounting. Analysis of profitability at a gross and net margin level is challenging, especially with the addition of ELA variants for large customers. An effective deal review and margin analysis process including the deal desk composition is a key requirement for the SaaS model

– **Customer segmentation**: Customer segmentation in the SaaS market uses usage and behavioral elements extensively. An added layer of complexity is the choice of go-to-market channels, including direct, partner, reseller and distributor. It is important to design a customer definition, hierarchy and segment definitionthat closely mirror the solution provider's business strategy.

– **Sales force management**: Sales force management is a critical requirement for SaaS companies. This includes funnel metrics, growth/velocity metrics, sales force productivity metrics, cost, churn and cash flow. A key success factor is designing the right metrics that align the incentives of the sales force with the value drivers for SaaS, such as ACV, bookings growth, up-sell and wallet-share growth, advance payment and churn management.

– **Finance operations & processes**: The unique needs of the SaaS model have a broad impact on finance beyond planning and touch on budgeting, forecasting and reporting. Key impact areas include billing and invoicing, revenue recognition, revenue assurance, external reporting, investor relations, taxation and compliance. Several companies have invested in systems and infrastructure, such as new billing engines, revenue recognition systems and revamped ERP suites to support this model

– **Product architecture**: As a core design principle, it is critical for the SaaS product to be both modular and scalable. This optimizes Cost to Serve (CTS) during the growth phase. Also key is to ensure an open architecture, which ensures high system availability and interoperability with leading technology solutions, thereby enhancing adoption.

– **Customer service and operations**: Customer satisfaction is a critical success factor. The SaaS business model success is driven by rapid growth, service velocity, and customer retention. SaaS company leaders need to drive a "Customer-first" culture and invest in talent management. Customer service and operations for SaaS companies require a different structure, processes, metrics, and governance,

– **Regulatory compliance**: The complex nature of the SaaS business presents multiple compliance challenges, including data privacy, security & risk management, licensing, transfer pricing and taxation (including cross border). Additional requirements are involved when working with government entities. Complying with applicable requirements is essential for sustainability.

Leading practices

– For "pure-SaaS" solution providers, define and align around "must-get-right" factors during the launch phase

– Existing companies launching a SaaS offering need to evaluate the strategy for the SaaS division upfront – whether it will be standalone/ separate at the outset, completely integrated or incubated at launch but separated based on scale

– The fast-changing nature of the industry necessitates periodic, strategic reviews to ensure rapid course correction

Appendix

Strategic drivers: formulae and examples

Appendix: Strategic drivers in detail

Growth

			Description
Accelerating Growth	**Customer Growth Drivers**	**CLTV**	Estimation of the projected total gross margin value of a customer over the lifetime
		Number of Customers	Number of customers who have given a financial commitment for usage of the service
		Subscriptions per Customer	Includes the sum of all products subscribed by a single customer account
		Billings per Customer	Monthly or annually, sum of billing per customer
	Revenue Growth Drivers	**TCV**	Total value of the customer contract
		Backlog	Out year bookings not yet recognized in deferred revenue
		ACV	Annual Contract Value of a specific subscription agreement
		Average ACV	Average Annual Contract Value of subscription agreements
		Bookings	Sum of all closed deals in a particular year (usually an annualized number)
		Calculated Billings	Sum of revenue during the period (i.e. a quarter) and change in deferred revenue
		ACV to Billings ratio	Ratio of how much has been billed to the annual value of a particular contract
		ARR/ MRR/ QRR	Periodical recurring revenue over a specific period that does not include one off fees
		Average revenue per user/per Account	Average revenue per user, either per month or per year
		Deferred Revenue	Portion of a billing, liability on the balance sheet, which represents services that not yet provided
		Time to Recognize Deferred Revenue	Period of time over which services will be provided and recorded as revenue

Customer Growth

Customer Lifetime Value (CLTV)

CLTV = (Average revenue per account * Gross Margin) * (1/Churn %)	CLTV is the ratio of recurring revenue to churn percentage that is the average gross margin (i.e., gross revenue less cost to serve) that all customers will generate before they churn or cancel the subscription.
CLTV Projected = NPV {[ ]$^{\mathrm{T}}$ [(ARR-CTS X (Churn + Capital interest rate)) / (Churn + Capital interest rate – Growth rate)]}	Projected CLTV: The true reflection of CLTV is estimating the projected total gross margin of a customer over their lifetime. It considers the NPV of the annually recurring revenue (net of cost to serve) spread across the life of the contract and discounted by the churn rate, capital interest rate and the growth rate of the business.

Number of Customers

#Customers = Total sign-ups – Free Trials	Number of customers represents those who have given a financial commitment for usage. This excludes users on free trial, number of log-ins, etc. The user base should only include monetized usage or users that drive revenue.

Subscriptions per Customer

Subscriptions per customer = =(Products subscribed by customer account)	Subscriptions-per-customer includes the sum of all products subscribed to by a single customer account. This does not measure different instances of access by a single customer account/ subscriber.

Billings per Customer

Billings per customer = (amount invoiced per customer)/ month	Sum of billing for a specific customer, measured yearly or monthly.

Revenue Growth

The various components of revenue for a SaaS company are best explained through the simple illustration below:

ABC Inc., a SaaS solution provider has the following set of customer subscriptions:

Customer	Lead converted	Contract commitment	Upfront commitment	Contract Value
A	Jan'15	Yearly	US$200	US$2,400
B	Jan'15	Monthly	US$120	US$120
C	Feb'15	Yearly	US$120	US$1,440
D	Feb'15	Yearly	US$120	US$1,440
E	Mar'15	Yearly	US$200	US$2,400
F	Mar'15	Monthly	US$200	US$200
G	Apr'15	Yearly	US$120	US$1,440

Assumption: Customers with yearly plans pay upfront for the whole year; customers with monthly plans pay on a per-month basis.

Total Contract Value (TCV)

TCV = (Upfront and recurring payments over life of subscription)	Total value of the customer contract, including one time and recurring revenue, over the entire period specified in the contract.

Backlog

Backlog = (out year bookings not yet included in deferred revenue)/ revenue at start of period	Backlog results from the out year bookings not yet recognized in deferred revenue. Backlog metrics include the percentage of annual revenue recognized from contracts at the start of the year and the percentage of quarterly revenue recognized from contracts at the start of the quarter.

Number of Customers

ACV = (Upfront and recurring payments over first year of subscription)	Annual value of the customer contract, including one time and recurring revenue, over the first year of the agreement. ACV can also be viewed in concert with Customer Acquisition Costs.

Bookings

	Month	Monthly Bookings
Bookings = (Closed deals, with different prices and durations)	Jan'15	US$200 Yearly + US$120 monthly = US$2,520
	Feb'15	US$120 Yearly + US$120 Yearly = US$2,880
	Mar'15	US$200 Yearly + US$200 monthly = US$2,600
	Apr'15	$120 Yearly = US$1,440

Bookings is a contracted value. Each month, **bookings** represent the sum of all closed deals for that particular month only. **Annual contract bookings** represents the sum of all closed deals in a particular year

Calculated Billings

	Month	Monthly Bookings
Monthly billing = ∑ (Billing per month per customer)	Jan'15	US$200 Yearly + US$120 Monthly = US$2,520
	Feb'15	US$120 Yearly + US$120 Yearly+US$120 Monthly = US$3,000
	Mar'15	US$200 Yearly + US$200 monthly+US$120 Monthly = US$2,720
	Apr'15	US$120 Yearly+US$120 Monthly = US$1,560

– For contracts with yearly plans, billing has been considered for 12 months upfront.

– For contracts with monthly plans, billing has been considered on a per-month basis.

ACV to Billings ratio

Ratio = ACV/ Calculated Billings	Ratio of how much has been billed (yearly contract) to the annual value of a particular contract. This typically evaluates billing patterns. The ratio becomes more favorable as more payments are made up-front.

Revenue

<table>
<tr><td rowspan="2">**MRR =**
= Σ (Revenue per month per customer)

QRR = 3 X MRR
ARR = 4XQRR</td><td>**Month**</td><td>**Monthly Monthly Recurring Revenue (MRR)**</td></tr>
<tr><td>Jan'15</td><td>US$200 + US$120 = US$320</td></tr>
</table>

Total Revenue = ARR +Non-Recurring Revenue	**Month**	**Monthly Bookings**
	Feb'15	US$200 + US$120 + US$120 +US$120 = US$560
	Mar'15	US$200 + US$120 + US$120 +US$120 +US$200 + US$200 = US$960
	Apr'15	US$200 + US$120 + US$120 +US$120 +US$200 + US$200 + US$120 = US$1,080

– The monthly recurring revenue (MRR) for each month comprises the monthly revenue recognized for each contract, irrespective of the yearly/quarterly/monthly plan subscribed as part of the contract.

– Quarterly recurring revenue (QRR)/Annual recurring revenue (ARR) can be either a sum of individual MRRs or an average of particular months.

– **ARR is an annualized amount** that can be added to annual, non-recurring revenues in arriving at total revenue.

Average Revenue per User or per Account

Average Revenue per Account = ARR / Number of Customers	The average revenue per-user or per-account metric measures the average revenue per customer account over a given time period (typically average recurring revenue per account over a year).

Deferred revenue

	Month	**Monthly Billings**	**Monthly Revenue**	**Monthly Deferred Revenue**
Monthly deferred revenue = Billings – Revenue	Jan'15	US$2,520	US$320	US$2,200
	Feb'15	US$3,000	US$560	US$2,440
	Mar'15	US$2,720	US$960	US$1,760
	Apr'15	US$1,560	US$1,080	US$680

Time to recognize deferred revenue

Time to recognize deferred revenue = average remaining life to recognize revenue	Period of time over which services will be provided and recorded as revenue for a particular contract. This metric is typically reviewed in context of the change in deferred revenue.

Profitability

Optimizing Profitability

Cost Drivers

- **CAC** — Customer Acquisition Cost. Total cost of sales and marketing efforts to acquire a new customer
- **CTS** — Costs of initial investment, all running costs, ongoing customer service, upgrades, and client relationship
- **R&D Spend as a % of sales** — Total amount spent on Research and Development expressed as a percentage of total sales revenue
- **Sales Cost as a % of ARR** — Total cost of sales expressed as a percentage of annual recurring revenue
- **Marketing Costs as a % of ARR** — Total cost of marketing expressed as a percentage of annual recurring revenue

Margin Drivers

- **Gross Margins** — Gross margins are calculated as the difference between subscription revenue and costs (including application hosting costs, etc.) over subscription revenue
- **Recurring Margins** — Recurring profits generated from running the SaaS business
- **Service Margins Mix** — In-house team contribution to gross margins versus third-party service providers contribution to gross margins

Cash Flow Drivers

- **Cash Flow from Operations** — Cash generated from ongoing business activities; indicator of the health and liquidity of the enterprise
- **Free Cash Flow** — Measures available cash flow minus all capital expenditures
- **Operating Cash Flow Margins** — Cash generated from core operations per dollar of sales. A high margin can indicate efficiency at converting sales to $
- **Net Cash per Share** — Net cash for a company, divided by its shares outstanding – only applicable for publically listed companies
- **Months Up-front** — Measure of the sales team performance in achieving more customers payment in advance

Costs

Customer Acquisition Cost (CAC)

CAC per customer = ∑ (Sales, Marketing costs incurred during the period) / Total number of customers added in the period	CAC represents the sum of all one-time costs of all marketing and sales activities and the physical infrastructure and systems required to motivate a customer to purchase. This includes fully loaded labor costs, which are typically quoted as an average unit cost per new customer (generally it is the total department costs/ total sales and marketing costs)

Cost To Serve (CTS)

CTS = ∑ (Recurring Service Expenses)/ revenue	CTS as a percentage of revenue is typically used. CTS includes engineering, support, account management, customer service, billing activities, physical infrastructure, systems and fully loaded labor costs.

Spend as a % of revenue or sales R&D spend as a % of Sales

Ratios evaluating spend vs revenue	– R&D spend as a % of Sales = [ ] (Research & Development costs)/ Sales – Sales cost as a % of ARR = [ ] (Sales team costs)/ ARR – Marketing cost as a % of ARR = [ ] (Marketing spend)/ ARR

Margins

Gross Margins

Gross Margin = (Subscription revenue – subscription COGS) / Subscription revenue	Gross margin includes elements such as application hosting costs, customer on-boarding costs, customer service costs, and any third-party fees such as software licenses or data fees.

Recurring Margins

Recurring Margin = Annualized Recurring Expense (COGS + G&A + R&D) / Entering ARR	Recurring profits include sales and marketing costs of replacing churn, but exclude any other costs of growing the business beyond churn replacement.

Service Margins Mix

Service Margins Mix **In-house contribution** = In-house teams service margins/ gross margins **Third-party contribution =** Third-party service provider service margins/ gross margins – To be repeated for all partners/ third party providers	The Service Margins Mix identifies the contribution to gross margins from in-house teams versus those made from third party providers and partners, thus evaluating the economic value of these partnerships.

Cash Flows

Cash flow from Operations

Relevant cash flow from operations ratios	– Cash burn rate = Cash spent per month, quarter, or year – Cash in cash out = Cash flow at the end of the month, quarter, year; revenue at the end of the month, quarter, year

Free Cash Flow

Free Cash Flow = Operating cash flow – capital expenditures	Measures available cash flow minus all capital expenditures, or cash flow required to maintain or acquire assets.

Operating cash flow margins

Ratio $= \sum$ cash flow from operations)/ $1 sales	Cash generated from core operations per dollar of sales. A high margin can indicate efficiency at converting sales to cash.

Net cash per share

Net cash/share = net cash/ #shares	Net cash for a company divided by its shares outstanding (applicable only for publically listed companies).

Months Up-front

Months Up-front = Avg. number of months payment received up-front/ New bookings	Measure of payment received in advance, which is critical for SaaS businesses. More payments upfront can alleviate the cash crunch felt by SaaS businesses in their early years. This metric can be used as an incentive for sales teams to persuade clients to pay in advance.

Sustainability

Securing Sustainability

Sales Effectiveness Drivers

Driver	Description
Growth Efficiency Index	Relationship between costs incurred to increase growth and actual growth
Sales and Marketing Efficiency	Measure of sales and marketing spend vs revenue growth, future revenue growth and $ bookings
FTE's based drivers	Sales, bookings, ARR, number of staff devoted to sales, average time for new sales recruit to book a deal
LVR	The growth in the number of qualified leads month-over-month.
Sales Cycle Length	Time from initial interaction to the completion of the sale, in days
Average Length of Contract	Average duration in months or years of a typical subscription contract
Customer Acquisition	Customer acquisition by channel, typical acquisition path
Renewal Rate	Measure of achieved renewals for all contracts up for renewal (in terms of customer or contract value)
Funnel metrics	Measure of leads to trial and trial to paying account conversion, across sales cycles

Retention Drivers

Driver	Description
Customer Churn	Net Subscriber additions and net subscriber churn
Gross Revenue Churn	Revenue churn without upsells of existing customers
Net Revenue Churn	Dollar Retention Rate (DRR) percentage of revenue renewed from the previous year
Dollar-based Net Expansion Rate	Measure of customer retention and support subscription revenue expansion over time
Quick Ratio	Measure of growth, efficiency, which combines revenue and churn

User Adoption Drivers

Driver	Description
Products per Customer	Number of products that each individual subscriber purchases
Number of Features Accessed per Customer	Proportion of total features that are used by subscribers
Volume and Types of Support Tickets	Total number of instances raised to support, the types of issues encountered and variety of problems
Net Promoter Score	Customer loyalty metric that is scored between -100 to +100, with positive scores considered good
Altitude metric	Usage of service (data volume, number of users, computing cycles) / entitlements (monthly revenue)

Sales Effectiveness

Growth Efficiency Index (GEI)

GEI = Growth Expense / ARR Growth	GEI is a measure of revenue growth efficiency, which looks at the relationship between costs incurred to increase growth and the actual revenue increase. Growth expenses include sales and marketing expenses, as well as customer success expenses. **The GEI can also be measured on ACV.** Additionally: – ARR Growth = Growth Expense / GEI - Illustration: consider a growth expense of 0.6 and a GEI of 1.4, with a churn rate of 25%, this would give a net ARR growth of approximately 18%

Customer Acquisition

Ratios looking at monetization of customer acquisition efforts	– Number of FTEs dedicated to new customer acquisition – Bookings per sales FTE = ACV/total number of sales FTEs – Average time for new sales recruit to book a deal – Leads-to-trial conversion rate = Trial subscribers/Leads – Trial-to-paying-account conversion rate = Booked customers/Trial subscribers – Customer acquisition by channel – Sales cycle length – Average length of contract = average duration (in months or years)

Lead Velocity Rate (LVR)

LVR = Avg. [(Qualified leads for current month – Qualified leads for last month) / Qualified leads for last month]*100	– Represents qualified sales lead growth. – Helps define long-term marketing and product strategies

Renewal Rates

Renewal rates in terms of customers and $	– Customer renewal rate equals the number of customers who renewed their contracts / number of contracts up for renewal. – $ Renewal rate equals the value of contracts renewed / value of contracts up for renewal.

Customer Maintenance

Ratios looking at monetization of customer maintenance efforts	– FTEs dedicated to new customer growth/ FTEs servicing existing client accounts = (FTEs that acquire new customers/ %sales FTEs that maintain existing customers)*100 – ARR/Sales FTEs – FTEs for cross-selling = (FTEs dedicated to selling more products/total FTEs)*100 – FTEs for up-selling = (FTEs dedicated to subscription revenue growth/total FTEs)*100

Sales and Marketing Efficiency

Sales and Marketing Efciency = Last period sales & marketing expense/ (Current period revenue – Last period revenue)	– Measures Sales and Marketing efficiency in generating revenue growth. This metric evaluates the relationship between S&M spend in the previous period versus attributable revenue growth. – Another variant of this is known as the "Magic Number."
Other ratios looking at sales and marketing effectiveness	– Sales & Marketing Expense/$ bookings

Retention

Customer Churn

Customer churn = #Customers cancelling contracts Total Customers*Elapsed time (annually)	Represents percentage rate of customer cancellations over time, usually on an annual basis. Can also be calculated as a ratio between renewing customers and expiring customers.

Gross Revenue Churn

Gross Revenue Churn = (Churn and contracted revenue)/ revenue at beginning of period	Revenue churn rate without effect from upsells or upgrades from existing customers. Typically, revenue used in calculating Gross revenue churn is MRR or ARR.

Net Revenue Churn

DRR = (ARR at the start of the year) / (ARR at the end of the year)	Dollar-based retention rate (DRR) includes the benefit of upsells, cross-sell and price increases based on GAAP subscription revenue recognition. If DRR is 100 percent, that simply means the company renewed 100 percent of the revenue from last year.

Dollar-based Net Expansion Rate

DER = aggregate ACV at t for customers already customers 12 months prior/ aggregate ACV at t-1 for customers 12 months prior	– Dollar-based Net Expansion Rate (DER) is a measure of customer retention at one point in time. – An extension of this rate consists in evaluating how much support subscription revenue has been added over time, as a further indicator of revenue sustainability. This rate is calculated on an individual support subscription contract basis and is equal to the total subscription contract value at one point in time divided by the number of years remaining on the contract at that point in time.

Quick Ratio

Quick Ratio = (New MRR + Expansion MRR) / (Cancelled MRR + Contraction MRR)	The "Quick Ratio" provides a snapshot of a SaaS business's growth efficiency, particularly during the launch phase. It is used by investors and internal management to rapidly benchmark growth performance and is constructed by combining two iconic SaaS metrics, namely revenue (Monthly Recurring Revenue in this case) and churn.

User Adoption

Product and feature subscription

Product and feature subscription metricS	– Product purchase = Volume of products sold in a year/total number of customers. – Feature usage = (Number of features purchased + number of annual upgrades)/total number of customers. – Volume and type of support tickets = Volume of support tickets/total number of customers.

Net promoter score

NPS = (Promoters + Passive customers + Detractors)	– Promoters are loyal enthusiasts who will keep buying and referring services to others, thereby fuelling growth. Significant up-selling and cross-selling opportunities exist. – Passives are satisfied but unenthusiastic customers who are vulnerable to competitive offerings. – Detractors are unhappy customers who can impede growth.

Altitude metric

Altitude = Measure of usage (i.e. Monthly SQL cycles) / entitlements (i.e. monthly revenue)	– Usage of service (data volume, number of users, computing cycles) / entitlements (monthly revenue).

KPMG: An experienced team, a global network

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