

Software-as-a-Service (SaaS)

A Guide for Investors





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Introduction to Software-as-a-Service (SaaS)

Instead of buying software as a one-time purchase and installing it on a single device, SaaS allows users to access applications through the internet on a subscription basis. This has brought about greater convenience, flexibility, and potentially lower costs for users compared to traditional software.

SaaS is widely used across industries such as customer relationship management, enterprise resource planning, collaboration tools, and marketing automation.

A rapidly growing market to reach above US\$800 billion by 2030

The SaaS market is expanding rapidly due to digital transformation and cloud computing. In 2024, global SaaS revenue grew by 20% to reach US\$399 billion, with projections to surpass US\$800 billion by 2030 at an 12% annual growth rate. North America remains the largest market, accounting for 48% of global adoption, while the Asia-Pacific region is the fastest-growing, expected to reach US\$201 billion by 2030.

The integration of artificial intelligence (AI) into SaaS solutions is a major driver of growth, with companies using AI to automate tasks, improve customer service, and analyse data more efficiently. As businesses generate more data and shift to cloud-based operations, managing and securing information has also become a priority.

The future outlook for SaaS remains robust, with adoption expected to grow across both developed and emerging markets.

Key metrics to evaluate SaaS companies

Investors evaluate SaaS companies based on key financial metrics such as annual recurring revenue (ARR), which measures predictable subscription income from a company's products and services, as well as recurring revenue mix, which is the percentage of revenues that are subscription-based.

The Gross Retention Rate and Net Retention Rate are vital metrics for determining customer satisfaction and the long term health of the business.

Valuing SaaS companies

Unlike traditional businesses, SaaS companies are valued based on enterprise value-to-revenue (EV/Revenue) rather than price-to-earnings (P/E) ratios.

The Rule of 40, which states that a SaaS company's revenue growth rate and profit margin should sum to 40% or higher, is often used to assess financial health.

Companies exceeding this threshold are generally viewed as financially healthy and tend to trade at higher valuations.

Key risks

Despite its strong growth potential, investing in SaaS carries several risks. Market valuations can be volatile, as SaaS companies are highly dependent on future growth expectations and macroeconomic conditions.

Cybersecurity remains a key concern, as SaaS platforms process vast amounts of sensitive data, making them attractive targets for cyberattacks. High customer churn can also impact profitability, especially if companies struggle to retain users. Many SaaS firms invest heavily in customer acquisition, delaying profitability and making cash flow management crucial for long-term success.



Introduction to SaaS

Software-as-a-Service (SaaS) has led to a shift in the digital landscape

What is Software-as-a-Service (SaaS)?

SaaS is changing the way businesses and individuals use software. Instead of buying software as a one-time purchase and installing it on a single device, **SaaS allows users to access applications through the internet on a subscription basis**. This means greater convenience, flexibility, and often lower costs for users compared to traditional software.

A well-known example is Microsoft. In the past, people had to buy Microsoft Office as a one-time purchase, install it via a CD-ROM, and use it on a single computer. Today, Microsoft 365 offers the same software—like Word, Excel, and PowerPoint—through a cloud-based subscription, allowing users to access their files from anywhere and enjoy regular updates.

Figure 1: Comparison between SaaS model and traditional model

Perpetual License Model

- Before cloud computing, software licenses were sold on floppy disks / CD-ROMs for installation on individual devices.
- They evolved to be installed on servers for organisational use, but the one-time purchase model remained unchanged.

Key Characteristics:

	Customers pay an upfront cost for a one-time license
	Own the software for a specified time/indefinitely
	Customers are responsible for updates and maintenance

Example: Old Microsoft Office version prior to Office 365

Source: Company data

Subscription/SaaS Model

- Fees are usually due monthly/annually over the subscription term.
- Gave rise to the software-as-a-service (SaaS) model
- SaaS applications are hosted in the cloud and only require an internet connection to be accessed

Key Characteristics:

	Customers pay recurring fees to access the software
	Provider manages updates, maintenance and security
	No upfront cost, no need for customer's ongoing management

Example: Microsoft 365

The Shift to the SaaS Model

Many of the world's leading technology companies have moved from selling software licenses to offering SaaS-based services.

Apart from Microsoft, companies which have shifted towards a subscription-based model include Adobe, Intuit, Autodesk and SAP.

At the same time, emerging companies have adopted the subscription-based model from the outset. After Apple launched the App Store in 2008, companies have been able to leverage on the subscription model.

For example, Spotify widened access to subscription-based music through its streaming services.

Advantages of SaaS

SaaS provides multiple benefits for businesses and users. Here are some key advantages:

- **Stable and Predictable Revenue:** Subscription-based pricing ensures businesses receive regular income, making it easier to plan for the future.
- **Higher Business Value:** Companies that earn consistent income through subscriptions are often seen as more valuable compared to those relying on one-time sales.
- **More Sales Opportunities:** Customers who are already using a subscription service are more likely to buy additional features or upgrades, increasing overall sales.
- **Better Understanding of Customers:** Subscription services collect useful data on customer preferences and behaviour, helping businesses improve their products and services.

Figure 2: Examples of companies that transitioned from License to SaaS model

Company	Transition
 Microsoft	Transitioned from perpetual license model for Office products to the subscription-based Office 365 in 2011
 Adobe	Transitioned from perpetual licenses (Creative Suite) to subscription-based Creative Cloud in 2013
 Intuit	Transitioned from QuickBooks software to a cloud-based SaaS model with QuickBooks online in 2016
 Autodesk	Transitioned from perpetual licenses for software like AutoCAD to a subscription-based model in 2016
 SAP	Moved its software solutions to the cloud in 2017, offering them via subscription rather than through perpetual licenses

Source: Company data

Who are the Major Players?

The SaaS industry is highly competitive, with both tech giants and niche players offering specialized software solutions.

Some of the biggest SaaS companies by revenue include:

- **Microsoft** – Productivity tools (Word, Excel, Teams)
- **Salesforce** – CRM software

- **Adobe** – Creative and design tools
- **SAP & Oracle** – Enterprise management software
- **Zoom** – Video communication
- **Shopify** – E-commerce platform
- **HubSpot** – Marketing and sales automation

Figure 3: Biggest players in SaaS market in 2024

Company	Category	Revenue (\$)
 Microsoft	Applications Suite	245.1 billion
 Alphabet	Networking Solutions	84.7 billion
 Oracle	CRM Platforms	53.0 billion
 Salesforce	CRM Platforms	36.5 billion
 SAP	ERP	33.8 billion
 Adobe	Application Development	20.4 billion
 Schneider Electric	Energy and Power Industry	18.2 billion
 Intuit	Field Service Management	16.3 billion
 IBM	Networking Solutions	15.8 billion
 Cisco	Networking Solutions	13.6 billion
 ServiceNow	Data Center Management	10.0 billion
 Shopify	Ecommerce Platforms	7.8 billion
 Zoom	Web and Video conferencing	4.6 billion
 Atlassian Cloud	Team Collaboration	4.4 billion
 HubSpot	CRM Platforms	2.4 billion

Source: Omnisus

Key SaaS Segments

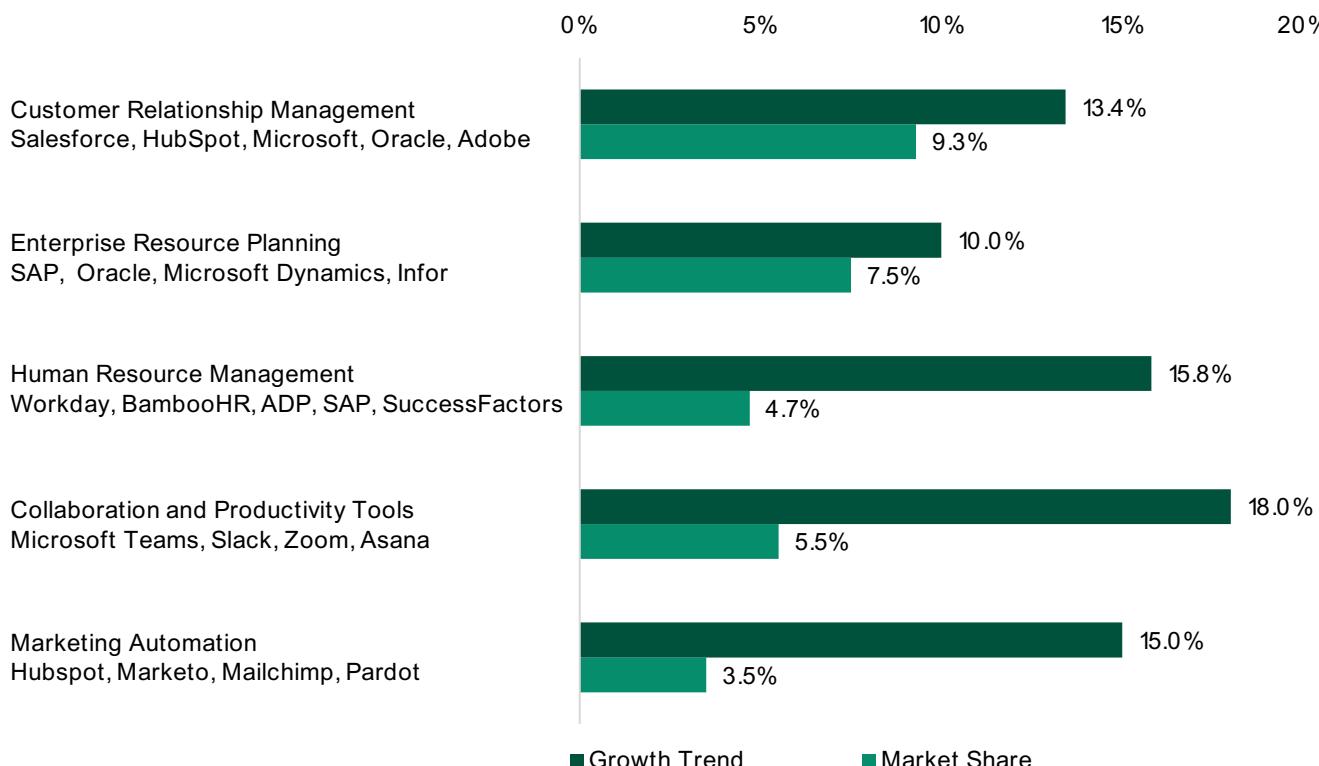
SaaS is not just about office software. It covers a wide range of applications across industries, including:

- **CRM (Customer Relationship Management):** Helps businesses manage customer interactions. Companies in this segment include Salesforce and HubSpot.
- **ERP (Enterprise Resource Planning):** Assists companies with operations, finance, and logistics. Companies in this segment SAP and Oracle.
- **HR & Payroll Software:** Manages employee records, payroll, and recruitment. Companies in this segment include SAP and Workday.
- **Collaboration Tools:** Enables remote work and team communication. Companies in this segment include Microsoft, Zoom and Asana.
- **Marketing Automation:** Helps businesses with digital marketing and customer engagement. Companies in this segment include HubSpot and Adobe.

- **Data Management and Governance:** Helps businesses to deliver accurate, safe and accessible information across the organisation. Companies in this segment include Datadog and Avepoint.

Across these segments, collaboration and productivity tools is one of the fastest growing segment driven by rising adoption of these solutions.

Figure 4: Biggest SaaS Categories



Source: Omnisus

Industry Growth Trends

Global SaaS market projected to grow at 12% per year from 2024 to 2030

Rapid growth in the past decade

The SaaS market has experienced rapid growth in the past decade, with strong demand from businesses looking for flexible and scalable software solutions.

In 2024, the global SaaS market grew by 20%, reaching an estimated US\$399.1 billion in revenue. Looking ahead, it is projected to expand at an annual growth rate of 12%, potentially surpassing US\$800 billion by 2030.

North America remains the largest market

While North America remains the largest market—accounting for nearly half of global SaaS adoption—the Asia Pacific (APAC) region is emerging as a key growth driver.

The APAC SaaS market grew by 22.5% in 2024, reaching US\$86.4 billion, according to Grandview Research. The industry is expected to continue expanding at a steady pace, potentially hitting US\$201 billion by 2030. This growth is fueled by increasing

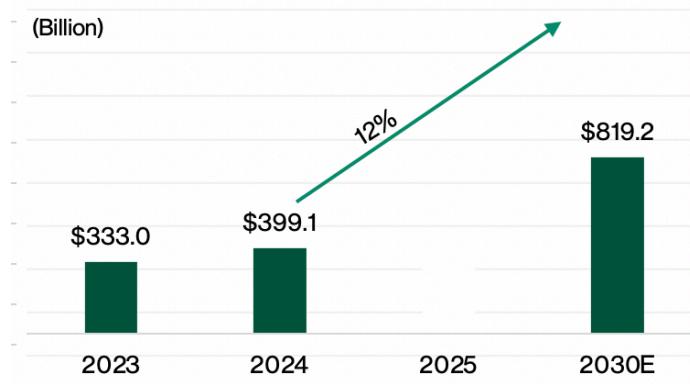
cloud adoption and digital transformation efforts across industries.

SaaS companies expanding footprint in APAC

Many SaaS companies have also expanded into APAC to tap into growth in the region. For example, Salesforce announced in March 2025 that it plans to invest US\$ 1 billion in Singapore over the next five years, as it continues to grow its customer base and partner ecosystem in the region.

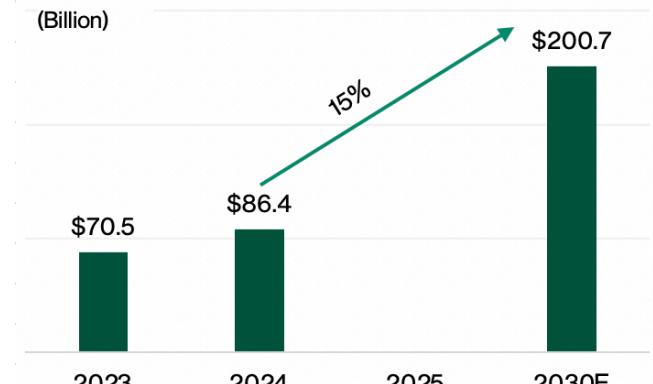
Avepoint launched its new S\$100 million international R&D hub in Singapore in 2022, deepening its base in the country after the company previously won a S\$37 million contract from Singapore's Temasek Polytechnic and five other higher learning institutions to deploy an integrated SaaS training management platform.

Figure 5: The global SaaS market is projected to grow at a 12% CAGR from 2024 to 2030



Source: Grandview research

Figure 6: The Asia Pacific SaaS market is projected to grow at a 15% CAGR from 2024 to 2030



Source: Grandview research

Fastest-Growing SaaS Categories

One of the biggest trends in SaaS today is the integration of Artificial Intelligence (AI), with companies using AI to automate tasks, improve customer service, and analyse data more efficiently.

Other fast-growing areas include:

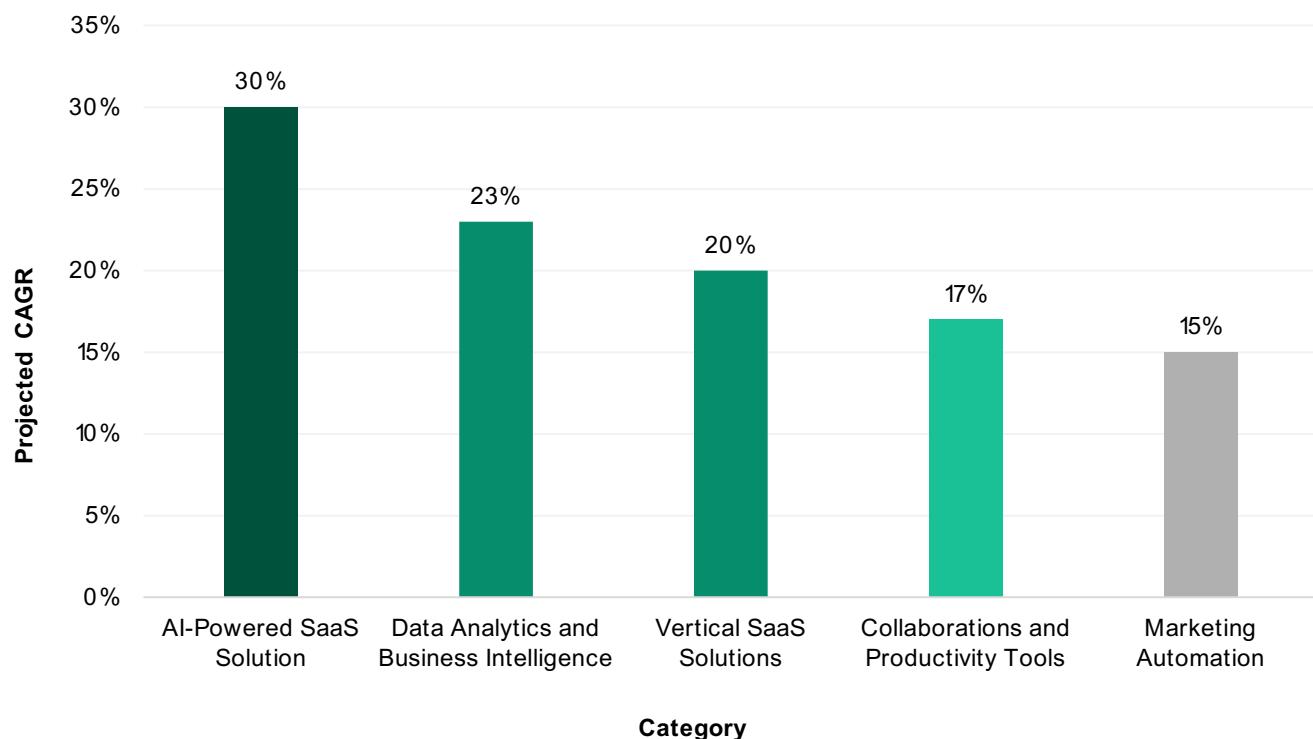
- **Vertical SaaS:** Industry-specific software solutions tailored for finance, healthcare, and retail.
- **Collaboration Tools:** Software like Zoom, Slack, and Microsoft Teams continue to gain popularity as remote and hybrid work models expand.
- **Data Analytics:** Companies are investing in analytics tools to gain better insights and improve decision-making.

Growing focus on data management and governance

As businesses generate more data and shift to cloud-based operations, managing and securing information has become a priority. SaaS providers now offer platforms to help businesses structure, analyse, and protect their data while ensuring compliance.

These solutions address challenges like fragmented data, security risks, and inconsistent data quality. Industries such as finance, healthcare, and retail have seen a surge in demand for these tools, as regulatory scrutiny and data protection become more critical.

Figure 7: Fastest Growing SaaS Categories



Source: Omnis

AI is becoming a game-changer

Artificial Intelligence (AI) is becoming a game-changer in the SaaS industry. AI-powered tools are no longer just optional features; they are becoming core components of modern software.

AI applications such as predictive analytics help businesses improve customer retention by identifying at-risk users, while AI-powered chatbots streamline customer service and onboarding processes.

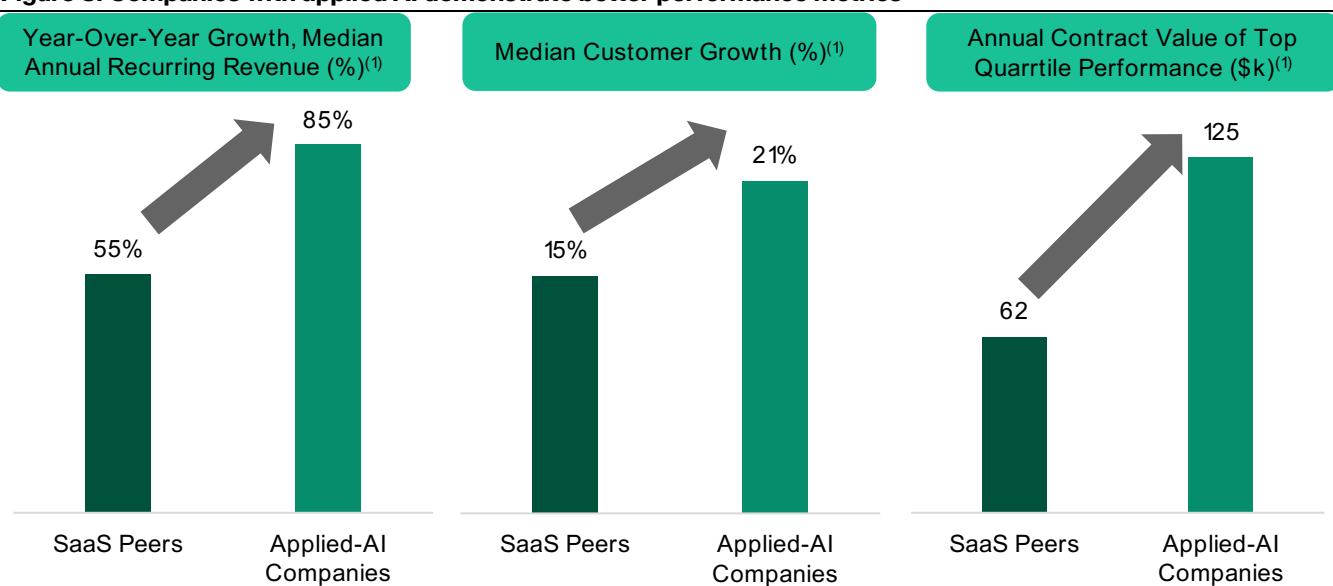
Consultancy McKinsey's analysis suggests AI could generate up to US\$15 trillion in value. However, AI adoption remains low currently, with around 50% to 60% of companies using AI but struggling to scale it effectively.

Strong demand for AI-driven SaaS solutions

Companies like Salesforce are already seeing strong demand for AI-driven SaaS solutions. For example, its AI product, Agentforce, secured over 1,000 paid deals, highlighting the market's willingness to invest in AI-enhanced software. Industry analysts predict that AI-driven SaaS solutions will see the fastest growth, with an expected 30% annual growth rate in the coming years.

As more software integrates AI, continuous improvements will be made based on user feedback and real-time data, creating a cycle of innovation that enhances software efficiency and business outcomes.

Figure 8: Companies with applied AI demonstrate better performance metrics



Companies with Applied-AI demonstrate better performance metrics as shown above

Source: McKinsey, Meritech. McKinsey analysis of 187 software and applied-AI companies in McKinsey's SaaSRadar benchmark, 2017–22

The Importance of Security in SaaS

As SaaS adoption accelerates, security has become a top priority for both providers and users. Businesses are investing heavily in security enhancements to protect sensitive data, ensure compliance, and prevent cyber threats. Key security areas include data encryption, access controls, and vulnerability management.

For companies using SaaS products, evaluating the security measures of potential providers has become an essential part of the selection process. Robust security measures are now a major differentiator in the competitive SaaS landscape, with providers that offer stronger protections gaining a competitive edge.

Focus on Efficient Growth

SaaS companies have shifted from “growth at all costs” to “efficient growth.” Many firms reduced spending by cutting jobs, scaling back marketing, and optimizing cloud infrastructure. The number of SaaS apps per company declined in 2023 as businesses audited their software subscriptions, negotiating harder for discounts and consolidated deals.

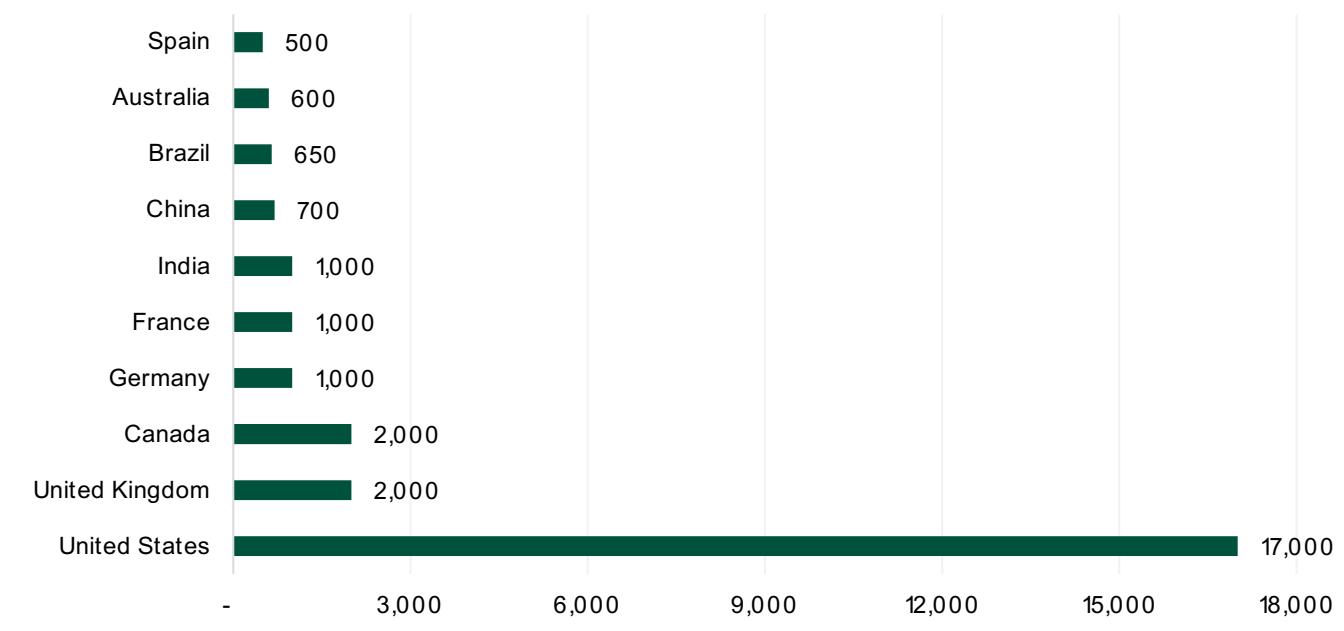
Long-Term Industry Outlook

Despite short-term fluctuations, the long-term outlook for SaaS remains strong. SaaS adoption is expected to continue growing across industries and regions, with 99% of companies projected to use at least one SaaS solution by the end of 2024.

Emerging markets such as Southeast Asia, Latin America, and the Middle East present new growth opportunities as cloud adoption accelerates. SaaS startups are increasingly localising products to cater to specific business needs in these regions.

As software needs increase with digitalisation, SaaS remains the preferred delivery model, ensuring continued demand and expansion. Companies with strong customer retention, efficient operations, and AI-powered innovation are likely to lead in the next phase of SaaS growth.

Figure 9: Number of SaaS companies by country



Source: SaaS academy

Key Metrics to Evaluate SaaS Companies

Annual Recurring Revenue (ARR) is key for SaaS companies

Revenue models in SaaS

SaaS companies operate differently from traditional software providers. Instead of one-time software sales, they use a subscription-based model, which generates recurring revenue. SaaS companies generate revenue through different pricing strategies, including:

- **Subscription-based:** Customers pay monthly or annually, ensuring a steady revenue stream for the company.
- **Freemium:** Basic features are free, with premium features requiring payment (e.g., Zoom's free basic plan with paid upgrades).
- **Usage-based:** Fees are charged based on actual usage, such as cloud storage or API calls (e.g., Twilio and Snowflake).

Annual Recurring Revenue (ARR)

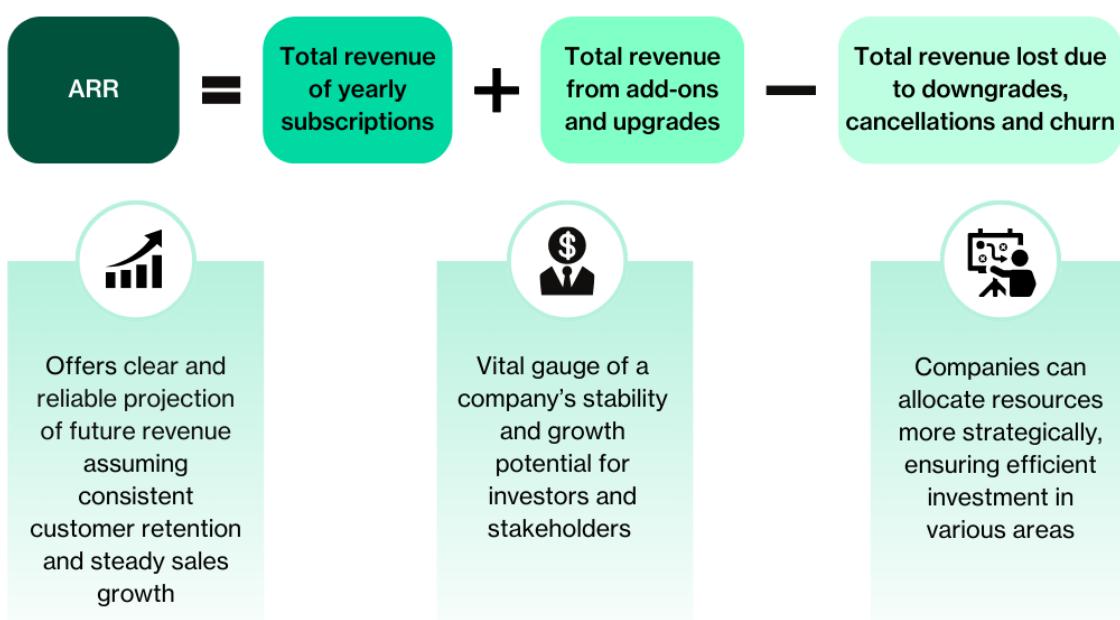
Annual Recurring Revenue (ARR) measures the predictable revenue a SaaS company earns from subscriptions over a year.

ARR is calculated by adding total revenue of yearly subscriptions with the total revenue from add-ons and upgrades, less the total revenue due to downgrades, cancellations and churn.

It offers a clear and reliable projections of a SaaS company's future revenue, assuming consistent customer retention and steady sales growth.

Companies grow ARR by acquiring new customers, upselling existing customers, or expanding their product of offerings.

Figure 10: Importance of Annual Recurring Revenue (ARR)



Recurring Revenue Mix

Recurring Revenue Mix, an extension of the Annual Recurring Revenue (ARR) concept, is the **percentage of revenues that are subscription-based, out of a SaaS company's total revenue**.

The higher the recurring revenue mix, the larger the amount of consistent and predictable revenue stream a company has.

This may have a compounding effect on revenue, as businesses are able to benefit from sustained engagement and value delivery through the customer life cycle.

For publicly listed SaaS companies, recurring revenue mix range from 66% to 89%, with the average public SaaS company having an average of 80% recurring revenue mix, according to analysis from Shea & Company.

Retention Rate

Retention rate measures how well a SaaS company keeps its customers over time. Retention rate serves as a crucial metric for evaluating customer satisfaction, service quality, and the long-term health of the business.

There are two main types:

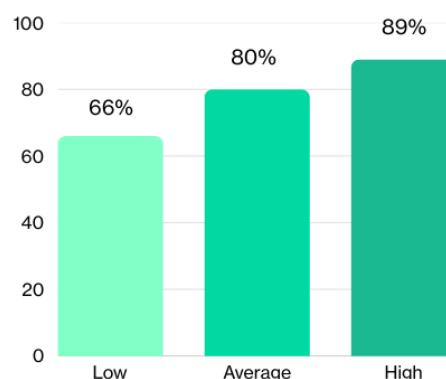
- **Gross Retention Rate:** Measures the ability to retain existing customers, and measured by the current period ARR, less the downgrade ARR (decrease in revenue caused by existing customers) and less the Churn ARR (revenue lost due to customer cancellations).
- **Net Retention Rate:** Measures the ability to expand with existing customers, and measured by the current period ARR, less the downgrade ARR, less the Churn ARR and *with the addition of LTM net expansion* (expansion revenue from upsells, cross-sells, and add-ons from current customers).

The benchmark dollar-based gross retention rate for Enterprise-focused SaaS companies is 87%, while the benchmark for Small and Medium Businesses (SMB)-focused SaaS companies is 72%, according to analysis from Shea and Company.

Figure 11: Importance of Recurring Revenue Model Mix

-  Build long-term customer relationships, providing a more consistent and predictable revenue stream
-  Diversify revenue streams, preventing over-reliance on any one source of income
-  Create a compounding effect on revenue, benefit from sustained engagement and value delivery throughout the customer's lifecycle on top of initial sale

Benchmark Recurring Revenue Mix from Public SaaS Companies



Source: Benchmark recurring revenue mix based on analysis from Shea & Company

Lifetime Value (LTV) vs Customer Acquisition Cost (CAC)

- **LTV:** Estimates the total revenue a company can earn from a customer over their lifetime.
- **CAC:** Measures how much a company spends to acquire a new customer.
- A strong SaaS business typically maintains an **LTV to CAC ratio of at least 3:1**, meaning the revenue earned from a customer should be at least three times the cost of acquiring them.

Worked example on comparing CAC vs. LTV

For example, consider a company that spent **\$100,000** on online advertising in a year. It employs four marketing professionals earning **\$40,000 each**, amounting to **\$160,000** in payroll expenses. Additional marketing costs total **\$20,000**. Over the same period, the company acquired **2,000 new customers**. The CAC calculation is as follows:

- **Total acquisition costs** = Advertising costs + Payroll costs + Other marketing costs
- **Total acquisition costs** = $\$100,000 + \$160,000 + \$20,000 = \$280,000$
- **CAC** = Total acquisition costs ÷ Number of new customers
- **CAC** = $\$280,000 \div 2,000 = \140 per customer

Now, let's calculate **LTV**. The company's average order revenue is **\$200**. After subtracting costs like shipping (\$20), transaction fees (\$5), sales tax (\$10), and refunds (\$25), the average profit per transaction is **\$140**. Customers make an average of **three transactions annually**, generating **\$420 in profit per year**. With an average customer lifespan of **three years**, LTV is calculated as:

- **Annual profit per customer** = Average profit per transaction × Average transactions per year
- **Annual profit per customer** = $\$140 \times 3 = \420
- **LTV** = Annual profit per customer × Customer lifespan
- **LTV** = $\$420 \times 3 = \$1,260$

Using these values, the **LTV:CAC ratio** is:

- **LTV:CAC Ratio** = LTV ÷ CAC
- **LTV:CAC Ratio** = $\$1,260 \div \$140 = 9:1$

Valuing SaaS Companies

SaaS companies which have achieved 'Rule of 40' typically trade at higher valuation

Rule of 40

The "Rule of 40" is a critical metric in assessing SaaS companies, where **the sum of a company's revenue growth rate and profit margin should exceed 40%**.

The Rule of 40 is widely recognised as a metric for evaluating growth, with companies that have exceeded 40% on this metric demonstrating strong growth potential.

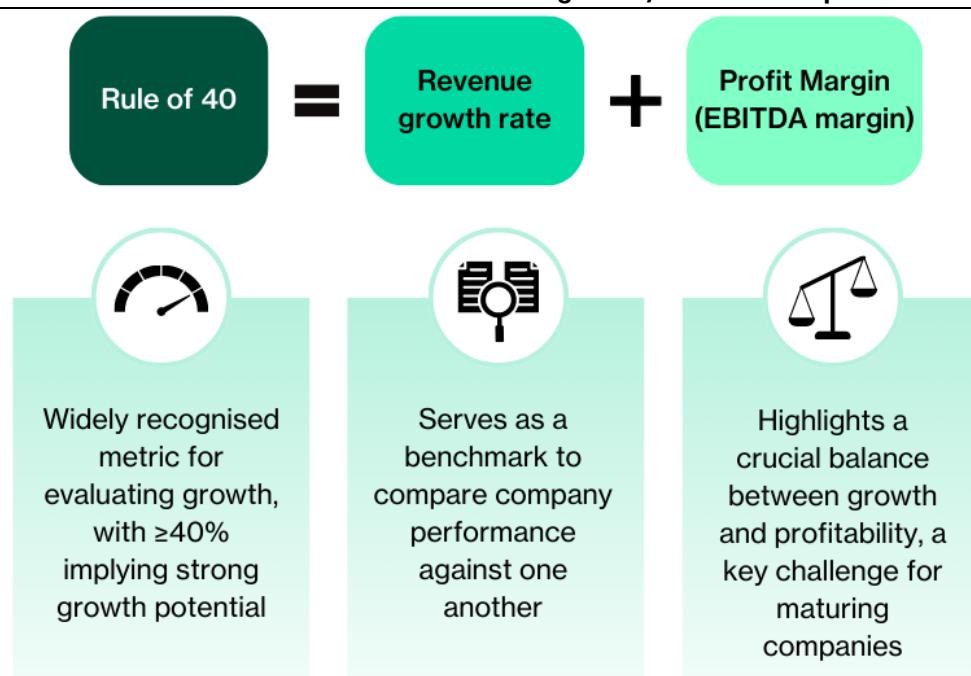
Companies exceeding this threshold are generally viewed as financially healthy and tend to trade at higher valuations.

Strong relationship between Rule of 40 and stock price

Data suggests a strong relationship between the rule of 40 with stock prices. As of January 2025, SaaS companies which have exceeded the Rule of 40 trade at an average Enterprise Value-to-Revenue (EV/Sales) ratio of 11x, compared to companies whose sum of revenue growth rate and profit margin are between 30% to 40%.

Beyond standard financials, SaaS-specific KPIs like ARR growth and retention rates are essential for evaluating a company's long-term success.

Figure 12: Companies which have achieved Rule of 40 trade at higher EV/Revenue multiples



Source: Company Data

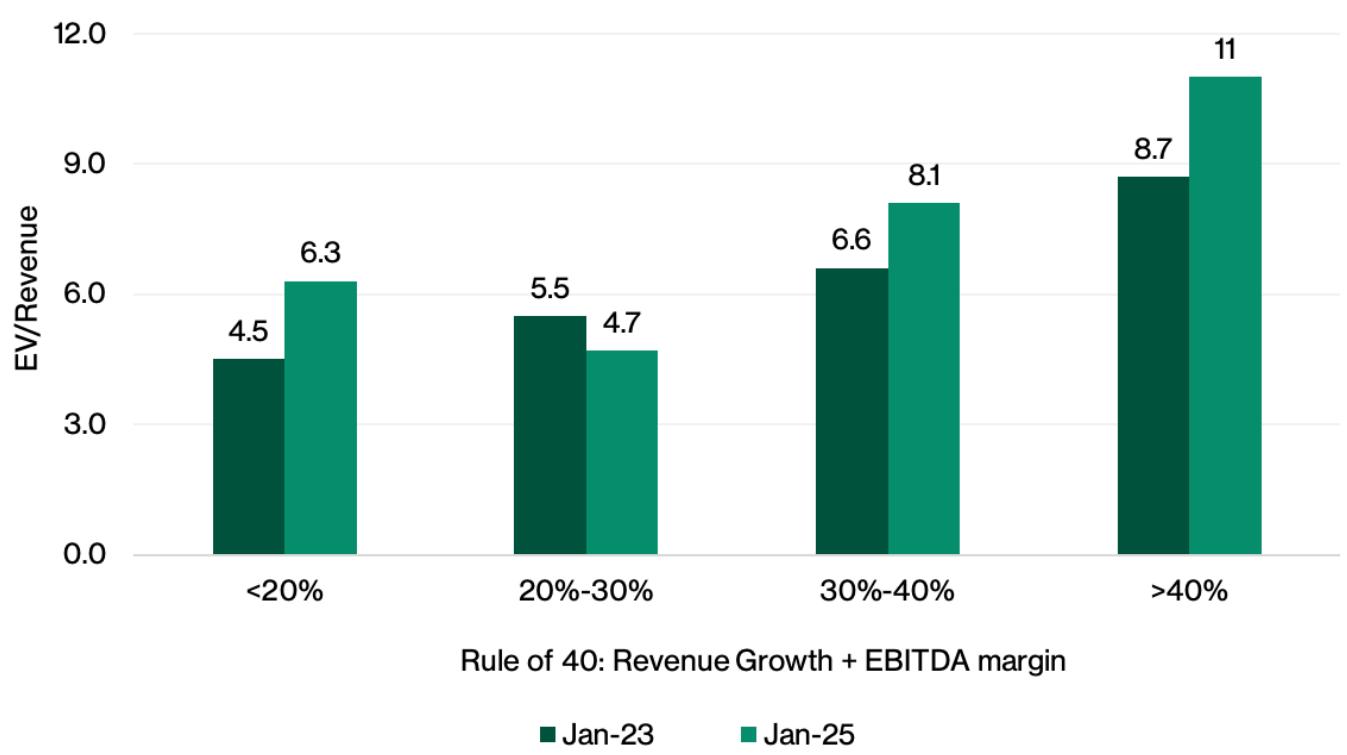
Using Valuation Multiples

Traditional valuation metrics like price-to-earnings (P/E) ratios are less relevant for SaaS companies, many of which operate at little or no profit. Instead, the Enterprise Value-to-Revenue (EV/Sales) ratio is widely used. This measures how many times annual revenue a company is worth.

Historically, SaaS companies have traded at higher EV/Sales multiples compared to the broader market due to their recurring revenue and strong growth potential.

During the 2020–2021 tech boom, public SaaS companies saw valuations soar, with median EV/Sales multiples reaching 15–18x, and some exceeding 30–50x revenue. However, rising interest rates in 2023 brought these multiples down.

Figure 13: Companies which have achieved Rule of 40 trade at higher EV/Revenue multiples



Source: Includes companies in The BVP Nasdaq Emerging Cloud Index. TEV based on fully diluted shares outstanding from CapIQ

Investment Risks

SaaS companies are sensitive to economic cycles, amongst other risks

Market Sensitivity and Economic Cycles

SaaS companies are high-growth businesses, often with minimal earnings, meaning valuations are highly dependent on future growth expectations.

Their stock prices are sensitive to economic cycles, changes in investor sentiment, and shifts in profitability expectations.

Cybersecurity and Data Protection Risks

- **Data Breaches and Leakage:** SaaS platforms handle vast amounts of sensitive data, making them prime cyberattack targets. Data breaches can lead to financial losses, reputational damage, and legal issues.
- **Supply Chain Vulnerabilities:** Many SaaS companies rely on third-party integrations, increasing security risks. If a third-party provider is compromised, it can impact the entire ecosystem.

Business and Operational Risks

- **Failure to Establish Product-Market Fit:** Without proper market validation, even well-funded businesses can fail.
- **Financial Sustainability Challenges:** SaaS companies may face delayed revenue with subscription-based models, requiring strong cash flow management.
- **Customer Churn and Retention Issues:** High churn rates above 5-7% can hinder revenue growth. Strong customer retention strategies are essential for long-term success.



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