

Truecaller

Sector: Information Technology / Communication

True Colors of Growth and Scalability

Redeye initiates coverage of Truecaller, the world's leading platform for verifying contacts and blocking unwanted calls and messages. Redeye argues that Truecaller is set to grow profits handsomely through a combination of growing the user base and ARPU, adoption of the enterprise offering, and high operating leverage. Redeye sees solid upside potential and views Truecaller as a long-term compounder.

Proven playbook in India being rolled out globally

Having exceeded 50% penetration of Indian smartphone users, Truecaller has a proven playbook for user growth and monetization. The company is active in more than 175 countries and is now looking to accelerate penetration in its core markets.

Underestimated moat and under-monetized user base

Truecaller enjoys network effects that strengthen its moats the more users it gets. While already having increased its ad load considerably since 2020, we argue there is still room for Truecaller to better monetize its 310m MAUs.

Truecaller for Business constitutes important growth optionality

The enterprise offering launched in late 2020 has rapidly gained strong market traction with many World-famous brands as customers. While still a small part of the total, we argue that this will be an important pillar for growth ahead.

Challenge: Big-impact risks from regulators and Alphabet

Truecaller has ~70% of revenues from India and 96% of its userbase on Android, exposing the company to high-impact risks. If Alphabet or the Indian government would impose some restrictions on Truecaller, the effects could be major. However, while the potential impact is large, we think it's likely overrated.

Valuation: Rapid growth at a reasonable price

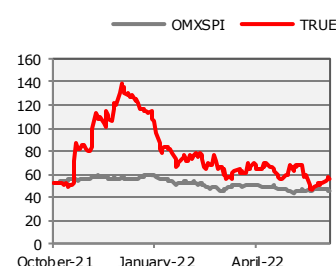
In our Base Case, we estimate a 2021–2025 sales CAGR of 38% and an average EBIT margin of 41% between 2022–2025. Using a DCF, we value Truecaller to a Base Case of SEK 100, corresponding to a P/E ratio of 38 for 2024e and 29 for 2025e. Our Bear Case is SEK 40, and Bull Case is SEK 180.

| Key Financials (SEKm) | 2020 | 2021 | 2022E | 2023E | 2024E | 2025E |
|-----------------------|------|-------|-------|-------|-------|-------|
| Sales | 491 | 1,129 | 1,846 | 2,540 | 3,294 | 4,149 |
| Sales growth | 67% | 130% | 64% | 38% | 30% | 26% |
| EBITDA | 88 | 345 | 731 | 1,076 | 1,426 | 1,834 |
| EBIT | -31 | 328 | 711 | 1,054 | 1,398 | 1,799 |
| EBIT Margin (%) | -6% | 29% | 38% | 42% | 42% | 43% |
| Net Income | -16 | 258 | 539 | 785 | 1,046 | 1,351 |
| EV/S | | 24.6 | 9.9 | 7.1 | 5.2 | 3.9 |
| EV/EBITDA | | 80.4 | 25.1 | 16.7 | 12.1 | 8.7 |
| EV/EBIT | | 84.5 | 25.8 | 17.0 | 12.4 | 8.9 |
| P/E | | 112.2 | 37.3 | 26.0 | 19.9 | 15.4 |

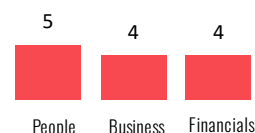
FAIR VALUE RANGE

| BEAR | BASE | BULL |
|------|------|------|
| 40 | 100 | 180 |

TRUE B VERSUS OMXSPI



REDEYE RATING



KEY STATS

| | |
|--------------------------|-----------|
| Ticker | TRUE B |
| Market | Large Cap |
| Share Price (SEK) | 51.5 |
| Market Cap (SEKm) | 19,341 |
| Net Debt 2022e (SEKm) | -1,730 |
| Free Float (%) | 50 |
| Avg. daily volume ('000) | 1,317 |

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Investment Case

Case

Strong moats and high scalability set the scene for continued market dominance in a fast-growing and fragmented market

We argue that Truecaller is set to lever its more than 310m monthly active users. As the undisputed leader with strong moats in the rapidly growing spam-blocking market, Truecaller is poised for rapid growth for many years to come, we believe. The company has a proven playbook, having penetrated more than 50% of the Indian market and is now accelerating its efforts to build the same market dominance elsewhere. In recent years, Truecaller has demonstrated phenomenal growth (three-year CAGR of >80%) while simultaneously achieving high profitability (>40% EBITDA from Q4 2021), proving it is a rare asset. Looking ahead, we believe Truecaller will be able to achieve swift growth in revenues (2021-2025 CAGR of 38%) and net profits (2021-2025 CAGR of 51%) thanks to an attractive mix of user growth, increasing ARPU*, and high operating leverage.

*Note that ARPU refers to blended ARPU for the consumer product, i.e., advertising and subscription revenues divided by DAUs. When referring to ARPU for either segment, we specifically write this.

Evidence

Under-estimated moat and under-monetized user base

Extensive dataset constitutes major moat

A high caller-identification rate is crucial for a good user experience, making a good enough dataset essential for market dominance. Due to data regulations such as GDPR, consented data is required from users, constituting an important barrier for new entrants. Truecaller enjoys network effects that strengthens its moats the more users it gets.

Large user base is under-monetized

Truecaller introduced its first form of monetization (ads) in 2016 and has since introduced premium subscriptions (2018) and an enterprise solution (2020). While this has generated impressive growth over time, we argue the user base is still greatly under-monetized.

We expect increased monetization from: 1) increased ad load and improved CPM rates for the Ads business, and 2) adoption of Truecaller for Business in the markets where Truecaller has already gained good penetration amongst consumers.

Challenges I

Watch out for the giants: Apple, Meta, and Alphabet

Truecaller is dependent on the giant tech players in several ways, including direct competition, as ad exchanges, and as the platforms on which Truecaller exists.

First, all of these can become, or are already, direct competitors to Truecaller. In 2015, both Facebook and Google (today Meta and Alphabet) made efforts to create their own apps with equal or similar functionality. However, Meta has now scrapped its attempt and Alphabet does not appear to be prioritizing its effort.

Second, both Meta and Alphabet (especially the latter) own the main ad exchanges that Truecaller uses for its programmatic ads. A negative change in this setup could have detrimental consequences for Truecaller.

Last, Alphabet's **Android (96% of Truecaller users)** and Apple's iOS (almost all of the remaining 4% of users) are the platforms upon which Truecaller exists. If either of these (particularly Android) were to restrict Truecaller in any way, it could have large negative effects for Truecaller. However, Truecaller has a very close—and mutually beneficial—relationship with Alphabet/Android. This makes it unlikely that Alphabet/Android would impose harsh restrictions on Truecaller. While Apple is more of a black box, it only constitutes a small part of revenues. However, as iOS is an important factor in the company's future growth, it would still be a tough blow.

Examples of such restrictions include data restrictions in ways that prevent Truecaller from using user data to optimize ads, leading to lower ARPU owing to reduced ad accuracy. Both players have recently launched initiatives (Google's Privacy Sandbox and Apple's App Tracking Transparency, ATT), but we do not believe these will hurt Truecaller in any significant manner.

Challenges II

Regulatory risks: Over-emphasized or real threats?

Truecaller is, to some extent, in the hands of the Indian government as well as other governing entities, such as the EU. New data protection legislations such as GDPR could pose a threat to Truecaller by limiting the company's ability to display the names of people who have not given their consent. While some of the effect would be managed by users having consented to leave their data, we do not believe this would prevent the damage.

Looking at the ongoing regulation in India, though, this explicitly excludes data that is "in the public interest," listing spam and fraud in this category. While India appears manageable in this regard, similar legislation in other markets that does not exclude spam and fraud would hurt Truecaller.

In May 2022, the Telecom Regulatory Authority of India (TRAI) stated that it plans to develop a system to help mobile phone users identify a caller's identity. The project will be pitched as the government's replacement for the Truecaller app. However, we believe several factors indicate this threat to be over-emphasized. Read more about this in the "Market" section.

Valuation

In our Base Case, we estimate a 2021–2025 sales CAGR of 38% and an average EBIT margin of 41% between 2022–2025. Using a DCF, we value Truecaller to a Base Case of SEK 100, corresponding to a P/E ratio of 38 for 2024e and 29 for 2025e. Our Bear Case is SEK 40, and Bull Case is SEK 180.

Counter-Thesis

- Alphabet and/or Meta change the setup in their ad exchange in a manner negative to Truecaller
- The Indian government changes its data protection law and does not exclude spam/fraud services
- The solution from the Indian government gains traction and "steals" users
- Getting into big markets such as the US before penetration has reached a threshold level can be costly
- While moats are strong in existing markets, it takes time to build new ones
- Truecaller for Business is still unproven

Catalysts

- Improved ad load, leading to higher ARPU in Advertising
- Increased uptake/conversion to premium subscriptions
- Good traction on the US market and iOS devices
- Continued adoption of Truecaller for Business

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Company Description/Profile

Company Description

Truecaller was founded in 2009 with the simple idea to help identify “who” is calling and a mission to create more trust in mobile communication by making this smarter, safer, and more efficient. Truecaller is today the world’s leading platform for verifying contacts and blocking unwanted calls and messages. The company enables safe and relevant conversations between people and makes it efficient for businesses to connect with consumers.

With hundreds of millions of daily active users in more than 175 countries, Truecaller is today one of the ten largest communication platforms in the World. In the company’s main market, India, only Facebook and WhatsApp surpass it among communication platforms.

The need for Truecaller’s services in its core markets is accentuated by people there typically receiving more than 40 spam calls a week.

Three business areas – Advertising by far the biggest

Truecaller has three business areas, two for consumers and one for businesses. The two consumer offerings stem from the same app, representing the free and premium versions. The business solution was launched in late 2020 and is the smallest business area today.

Advertising – free version of the consumer app, financed by ads

The main driver for the need for the Truecaller app is spam via calls and texts: Truecaller identified and blocked more than 30 billion such calls in 2021 alone. In many of the company’s core markets, consumers typically receive around eight spam calls each day.

For this reason, Truecaller’s main value propositions are caller identification and spam messaging. More specifically, the main use cases are:

- Caller identification: The receiver of a call becomes aware of who is calling, even if the caller is not in their address book, and receives contextual information, e.g., likely a sales call
- Blocking of spam calls
- Filtering out of spam messages

While there are other apps offering the same general offering, Truecaller stands out thanks to its extensive dataset that enables a caller-identification rate surpassing 80% in its core markets.

This service is monetized through third-party ads on the platform that the users experience. In 2021, Advertising accounted for 85% of revenues.

The main value proposition towards advertisers is to reach an audience of ~250m DAUs. This translates into billions of opportunities to serve ads to users each day, as DAUs interact, on average, 19 times with the app each day. Truecaller is well suited for high-frequency and high-reach campaigns.

Premium subscriptions – ad-free version of the consumer app

The premium version of the Truecaller app excludes all ads and includes a variety of additional features, including call recording and unlimited use of advanced spam blocking.

The premium version of the app was launched in 2018, and so far, less than 1% of Truecaller users pay for the premium version. The business model is a recurring subscription fee. In 2021, premium subscriptions accounted for 12% of revenues.

Truecaller for Business – letting enterprises get in contact with customers through verification

Up to 70% of calls are missed by customers who do not recognize the caller. Also, due to the high degree of scams, consumers tend to be skeptical towards callers claiming to represent a certain company or organization. This creates the need for a business-verification tool that lets consumers know which company is calling and assures them the call is not from someone only claiming to represent that company.

Truecaller for Business (TfB) provides verified identification and authentication APIs, improving pick-up rates, and ultimately can help convert conversations into transactions. The offering is industry agnostic, but the majority of customers at present are within banking and financial services, ed-tech, e-commerce, and healthcare.

Building on its broad access to consumers and the insights received from this, Truecaller launched TfB in Q4 2020. The service enables enterprises to confidently reach their customers in a more trusted way thanks to a verified and approved Truecaller identity. The increased trust from customers makes them more likely to take the call, which saves time and money, and increases ROI on sales calls.

Using integrations, the reason for calling can also be displayed, so that the customer knows, for example, that it is the food-delivery vendor calling to deliver food. The service also offers an oral customer survey after the call, providing a convenient way to gather customer feedback.

The business model for TfB is a volume-based subscription service. In 2021, TfB accounted for 3% of revenues.

Competitive advantages

Truecaller's main competitive advantage is an extensive dataset that ensures a high caller-identification rate: the core of spam detection.

According to the company, a caller-identification rate of less than 40% implies a very poor user experience. This low identification rate leaves the user frustrated as spam calls still come through and calls from legitimate callers are blocked. At around 60%, the user experience becomes decent; and at 80%, it becomes excellent.

To reach a good enough caller-identification rate, very large and continuously updated datasets are needed. Data regulations such as GDPR mean consented data is needed from the users, constituting an important barrier for new entrants.

Truecaller enjoys network effects with a self-reinforcing feedback loop that further strengthens its moats. As more users join Truecaller, the dataset is bolstered, improving the value proposition, which attracts more users, which then further strengthens the dataset. This circular model is a strong competitive advantage and constitutes an important moat for Truecaller.

We argue that the barriers to entry are very small, but the barriers to compete are very high because of the challenge of building a good enough dataset.

While not as strong as the network effects of online marketplaces, the data moat makes this close to a winner-takes-it-all market, we argue. Since the user experience is so highly dependent on the data, the service that first reaches enough data in a specific region is likely to out-compete other services at an accelerating pace. In the beginning, the leading service is

only somewhat better than competitors, which gives the leader somewhat faster user intake and somewhat lower churn. As time goes on, the leader's head start increases cumulatively. Ultimately, the market dominator earns high returns while the competitors struggle, which further strengthens the leader's grip on the market.

Since phone users mostly call or text people in close or semi-close geographical surroundings, the data moats of Truecaller work in regional clusters. The path towards market dominance is not through reaching a *critical mass* of the total number of users but instead it is assured through a *critical density* in geographical regions. Then, as critical density has been reached in neighboring regions, these merge and form even bigger hubs.

As an effect of this market dynamic, Truecaller aims to focus on a few markets at a time. This allows the company to gain from the network effects as the regional datasets improve.

Business strategy

Truecaller aims to grow at a rapid pace (45% CAGR until 2024) while still achieving high profitability (EBITDA % + growth % shall exceed 70% until 2024). Growth will mainly be organic, except for complimentary M&A to add product features and/or regional datasets when entering new markets. Read more about this under "Financial Targets" on page 11.

The company's strategy is best described for each business area separately.

Advertising

For Truecaller's main business area, the first focus point is continued user growth in core markets and expanding geographically when core markets reach maturity. The company's largest market by far is India, at around 70% of revenues and more than 50% penetration of the country's smartphone users. Beyond continued penetration in India, Truecaller aims to further penetrate the core markets of Egypt, Israel, Algeria, South Africa, and Malaysia—all markets with significant market penetration. However, Truecaller also aims to penetrate a few markets, including the US, where the price of each ad impression is much higher.

In addition, Truecaller aims to improve monetization by increasing ad load and CPM (cost per 1,000 impressions). The company intends to increase ad load by improving efficiency when rendering ads and by introducing so-called "offline ads", i.e., ads shown when the phone loses or lacks connection. Improving CPM will partly come from increasing the company's presence on high CPM markets, and by improving engagement on the ads by e.g., introducing high CPM formats like video.

Truecaller also resolves to increase the share of direct sales in relation to programmatic ads made through ad exchanges. Advertising clients that work directly with Truecaller for customized ads are priced 3-5x the rate of programmatic campaigns.

Premium subscription

As of the end of 2021, the share of Truecaller's users with a premium account was around 0.5%. To improve this share, Truecaller will work to boost the value of premium subscriptions by 1) adding new features, e.g., a digital assistant (through the acquisition of CallHero), and 2) investing in the trust and safety domain.

Also, Truecaller will work to enhance core functionalities on iOS to the same level as on Android. As the share of iPhone users is generally higher in high-income markets, this will be an important enabler in such markets.

Truecaller for Business

Truecaller's last (and smallest) business area is its enterprise solution, Truecaller for Business. To grow with a scalable solution, the company has three focus areas.

First, it intends to enhance the product offering to increase pick-up rates by adding features such as branded video caller ID, call feedback, call reason, priority messages, and enriched profiles.

Second, Truecaller has launched and is further developing a self-serve portal, which decreases the onboarding time. This solution will also enable automated reporting and billing, an analytics solution, and allow customers to upgrade usage plan themselves.

Last, Truecaller aims to scale the product in new markets by leveraging resellers and SDK partners (more on this in section "Sales Channels to Acquire Users / Customers") to generate leads and by deploying teams in local markets.

Entering new markets is ALL about data

The most crucial part of Truecaller's value proposition is having a strong enough dataset that ensures a high share of callers being identified correctly. This ensures high accuracy in blocking calls identified as spam, scams, or fraud, while letting the *real* callers through.

A strong dataset ensures a good user experience, which leads to high engagement and low churn, and prompts word-of-mouth that reinforces organic user growth. As a rule of thumb, an identification rate below 40% implies a poor experience, above 60% is a decent experience, and above 80% implies an excellent experience.

This logic is reflected in Truecaller's approach when entering a new market. While Truecaller's growth is always organic, the company uses different amounts of marketing and User Acquisition (UA) investments at various stages of maturity and caller-identification rate.

Early on, when the dataset is insufficient and the caller-identification rate is low, user growth is purely organic driven by "early adopters". As the number of users reaches a certain level that ensures a high enough identification rate (around 75%), retention levels go up and users become more valuable. At this stage, the company uses UA investments to speed up growth. Truecaller also buys users through other channels to grow the dataset faster, supercharging caller-identification rates. The data extracted from each user strengthens Truecaller's existing dataset for that region, which in turn increases identification rate.

As the dataset improves over time, churn decreases for each cohort. When the identification rate is high enough (likely above 80%), the value proposition becomes so strong that the network effects start to kick in, which further reinforces organic user growth.

The chronological order of growth is:

1. Immature market with poor data quality (below 75%): purely organic
2. Upcoming market with decent data quality (75–80%): organic + UA
3. Mature market with excellent data quality (above 80%): mostly organic

Company history: An entrepreneurial story

Truecaller was founded in 2009 by Alan Mamedi (CEO as of 2022) and Nami Zarringhalam (Chief Strategy Officer as of 2022) with the simple idea to identify "who" was calling, regardless of where in the world the call originated from.

Existing solutions at the time consisted mainly of phone book directories and call-back lookup services, which were too hyperlocal, unreliable, and ineffective in keeping up with an accelerating digital and mobile world. The basis of Truecaller was to create a smarter, real-time, and scalable solution.

Truecaller was officially founded in 2009 in Stockholm, where both founders are based. Within the first week of release, the app had been downloaded approximately 10,000 times.

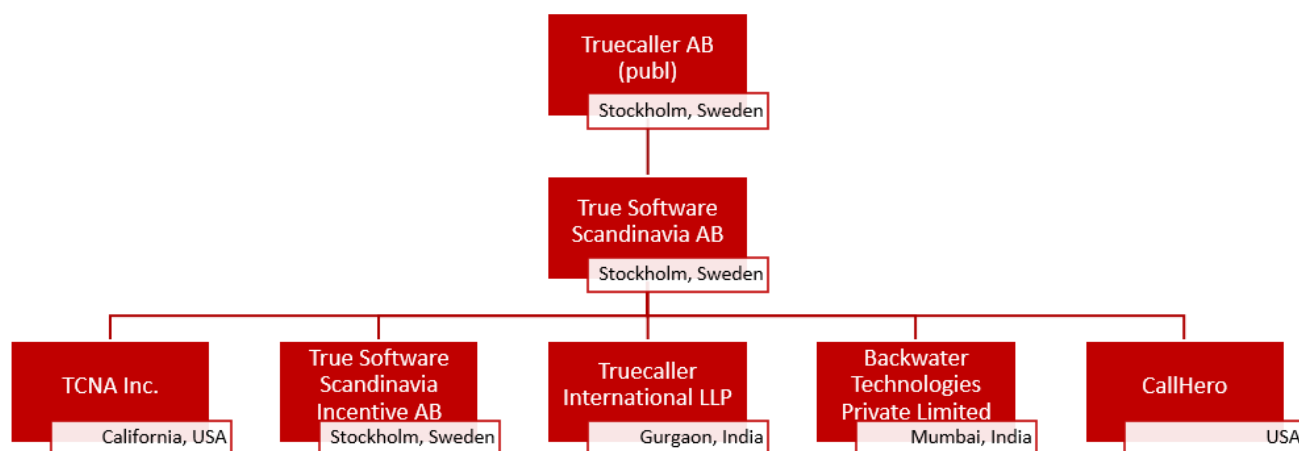
Truecaller launched its advertising platform in 2016, allowing for monetization for the first time. In 2018, it launched its subscription service (Truecaller Premium). In 2020, it launched Truecaller for Business (TfB), the company's first B2B product.

| | | |
|------------------------------------|------|---|
| Founding with a product focus | 2009 | Truecaller was founded in Stockholm, Sweden, by Alan Mamedi and Nami Zarringhalam. The app was initially launched on Symbian and Microsoft Windows Mobile and later that year on Android and iPhone. |
| | 2012 | The app was released for Blackberry, Windows Phone and for Nokia Series 40. |
| | 2013 | Reached 10 million MAUs globally. |
| | 2013 | Received USD 19m in a funding round led by funds advised by Sequoia Capital (an early investor in Apple, Zoom, WhatsApp, Nvidia, Google, Cisco, PayPal, and many more). |
| Commercialization and Monetization | 2014 | Raised an additional USD 60m in a funding round led by Atomico (venture capital fund founded by Skype founder, Niklas Zennström), Sequoia Capital and Kleiner Perkins (early investor in Google, Amazon and Spotify). |
| | 2016 | Launched advertising platform, allowing monetization for the first time. |
| | 2017 | Reached 100 million MAUs globally. Incorporated an Indian subsidiary and gre the local organization in India. |
| | 2018 | Launched subscription service as a second monetization opportunity. |
| Extending the platform | 2019 | Reached 200m MAUs globally, 150m of which from India. Truecaller becomes a top-3 app in India. |
| | 2020 | Reached over 500m downloads. Launched "Truecaller for Business", its first B2B product, as a third monetization opportunity. |
| | 2021 | IPO on the Swedish stock exchange, listed on Large Cap Stockholm. Reached 300m MAUs globally. |

Source: company data

Company structure

Below is the legal company structure of Truecaller.



Source: company data

True Software Scandinavia Incentive AB

This is part of an old corporate structure used for long-term incentive plans for Truecaller's employees, and is currently being phased out. It was structured through employee ownership

of shares in four separate companies. These companies all have names like True Software EC AB. Thus, several employees have indirect holdings in Truecaller through some of these "EC Companies".

Backwater Technologies Private Limited

Truecaller acquired Backwater Technologies Private Limited in 2019 from Sequoia. This was a FinTech company called ChillR. Truecaller no longer attempts to develop inhouse FinTech solutions, so this company is inactive.

Truecaller International LLP

This is Truecaller's Indian subsidiary for its core operations.

TCNA Inc.

This is Truecaller's US subsidiary for its core operations.

CallHero

This subsidiary was acquired in 2022.

Financial Targets

- 45% CAGR between 2021 and 2024
- EBITDA margin above 35% after 2024
- Between 2021 and 2024, growth % + EBITDA margin % shall exceed 70%
- Maintain a net cash position through 2024
- No dividends planned through 2024

Management, Board, and Owners

Management Team

| Management team | | | | |
|---------------------|---|----------------|--|---|
| Name | Position | Employed since | Ownership | Education and previous experience |
| Alan Mamedi | CEO and Co-founder | 2009 | - 23.4m class A-shares - 3.7m class B shares directly and 1.9m class B shares indirectly - 1m warrants | Founder of Truecaller. Holds a Bachelor's degree in Computer Science from KTH Royal Institute of Technology in Sweden. |
| Odd Bolin | CFO | 2020 | - 0.13m class B shares directly and 1.34m B shares indirectly - 0.65m warrants | CFO at Zacco, G5 Entertainment, Sinch, and Cybercom. Holds a MSc in Engineering Physics and a PhD in Plasma Physics from KTH, Sweden. |
| Nami Zarringhalam | Chief Strategic Officer and Co-founder | 2009 | - 23.4m class A-shares - 3.7m class B shares directly and 1.9m class B shares indirectly - 1m warrants | Founder of Truecaller. Holds a Bachelor's degree in Computer Science from KTH Royal Institute of Technology in Sweden. |
| Fredrik Kjell | Chief Operating Officer | 2020 | - 2.00m class B shares directly and 0.65m B shares indirectly - 0.65m warrants | CPO and Head of Gaming at Kindred. Holds a master's degree in Intellectual Capital Management and a bachelor's degree in IT from Chalmers, Sweden. |
| Rishit Jhunjhunwala | Chief Product Officer and CEO of Truecaller India | 2015 | - 3.84m class B shares directly and 1.46m class B shares indirectly - 0.75m warrants | VP at July Systems and co-founder at Cloud Magic Inc.. Holds a degree in Business Management at Bangalore University. |
| Petra Weslien | Chief HR Officer | 2017 | - 720 class B shares indirectly | Chief HR Officer at iZettle and Senior Consultant at Novare. Holds a law degree from Lund University. |
| Ola Espelund | Chief Legal Officer | 2021 | - 0.55m warrants | General counsel and member of management team at Marginalen Bank, Senior Group Legal Counsel at Telia, and Senior Associate at Mannheimer Swartling. Holds a law degree from and a bachelor in Business Administration Lund University. |

Source: Redeye, company data

Truecaller is still run by its two founders, Alan Mamedi (CEO) and Nami Zarringhalam (CSO) who together own 14.5% of the capital but a full 59.8% of the votes. Furthermore, CFO Odd Bolin owns a considerable amount (worth SEK 8m as of May 2022). Apart from the founders and the CFO, the current insider ownership is rather low. However, all members from the management team own a considerable number of warrants.

Regarding experience, we assess that the management team is experienced and has good backgrounds both regarding education and previous positions.

Board of Directors

The board of directors consists of the two founders, representants from the two largest shareholders (Sequoia Capital and Kleiner Perkins), one M&A specialist within telecom, and one with additional experience in telecom. Hence, a seemingly strong team.

| Board of Directors | | | | |
|--------------------|-------------------------|----------------|--|---|
| Name | Position | Director since | Ownership | Other assignments and background |
| Bing Gordon | Chairman of the board | 2020 | - 58,000 warrants | Partner with Kleiner Perkins Caufield & Byers (2nd largest owner of Truecaller) and special adviser to BoD at Amazon. Was Chief Creative Officer at Electronic Arts for ten years. Investor and director in Zynga and Duolingo. |
| Shailesh Lakhani | Director | 2013 | - | Representing Sequoia Capital (largest owner of Truecaller) where he is MD for the Indian subsidiary. |
| Alan Mamedi | Director and Co-founder | 2009 | - 23.4m class A-shares - 3.7m class B shares directly and 1.9m class B shares indirectly - 1m warrants | Founder of Truecaller. Holds a Bachelor's degree in Computer Science from KTH Royal Institute of Technology in Sweden. |
| Nami Zarringhalam | Director and Co-founder | 2009 | - 23.4m class A-shares - 3.7m class B shares directly and 1.9m class B shares indirectly - 1m warrants | Founder of Truecaller. Holds a Bachelor's degree in Computer Science from KTH Royal Institute of Technology in Sweden. |
| Annika Poutiainen | Director | 2021 | - 58,000 warrants | Member of the listing committee for Nasdaq Helsinki, Advisory Board for Unzer Group GmbH and director of Airtel Africa plc. |
| Helena Svancar | Director | 2021 | - 3,800 class B shares - 58,000 warrants | Nearly 20 years of investment banking in London, New York and Stockholm. Currently head of M&A at Ericsson. |

Source: Redeye, company data

Ownership

Truecaller has a very well-known owner base, consisting of several Venture Capital (VC) funds.

Largest capital owner is world famous VC fund Sequoia Capital, well known for its early investments in Apple, Zoom, Nvidia, Spotify, Google, PayPal, etc. Sequoia has been a shareholder in Truecaller since 2013.

Kleiner Perkins is another VC fund with previous investments made in companies like Amazon, Spotify, Electronic Arts, Google, and Slack. Kleiner Perkins has been a shareholder in Truecaller since 2014.

On eleventh place is Atomico – a VC fund started by Skype founder Niklas Zennström. Atomico has been a shareholder in Truecaller since 2014.

| Ownership (# of shares in millions) | | | | | | |
|--------------------------------------|--------------------------------------|-------------|--------------|--------------|---------------|---------------|
| Rank | Shareholder | A-Shares | B-Shares | Total Shares | Share Capital | Voting Rights |
| 1 | Sequoia Capital | 0.0 | 65.4 | 65.4 | 17.5% | 8.2% |
| 2 | Nami Zarringhalam | 23.4 | 3.8 | 27.2 | 7.3% | 29.9% |
| 3 | Alan Mamedi | 23.4 | 3.8 | 27.2 | 7.3% | 29.9% |
| 4 | Kleiner Perkins Caufield & Byers LLC | 0.0 | 26.2 | 26.2 | 7.0% | 3.3% |
| 5 | Handelsbanken Fonder | 0.0 | 20.6 | 20.6 | 5.5% | 2.6% |
| 6 | Första AP-fonden | 0.0 | 16.0 | 16.0 | 4.3% | 2.0% |
| 7 | Futur Pension | 0.0 | 14.8 | 14.8 | 4.0% | 1.9% |
| 8 | Malabar Investments | 0.0 | 14.5 | 14.5 | 3.9% | 1.8% |
| 9 | Capital Group | 0.0 | 12.4 | 12.4 | 3.3% | 1.6% |
| 10 | Movestic Pension | 0.0 | 10.4 | 10.4 | 2.8% | 1.3% |
| 11 | Atomico Partners | 0.0 | 10.4 | 10.4 | 2.8% | 1.3% |
| 12 | Swedbank Robur Fonder | 0.0 | 8.8 | 8.8 | 2.4% | 1.1% |
| 13 | Tredje AP-fonden | 0.0 | 7.9 | 7.9 | 2.1% | 1.0% |
| 14 | Avanza Pension | 0.0 | 7.2 | 7.2 | 1.9% | 0.9% |
| 15 | Inbox Capital AB | 0.0 | 6.1 | 6.1 | 1.6% | 0.8% |
| Total 15 Largest Shareholders | | 46.8 | 228.2 | 275.0 | 73.5% | 87.6% |
| Others | | 0.0 | 98.9 | 98.9 | 26.5% | 12.4% |
| Total Number of Shares | | 46.8 | 327.2 | 374.0 | 100.0% | 100.0% |

Source: Modular Finance (Holdings) as of 13 June 2022

More about Sequoia Capital

Sequoia Capital is an American VC firm, founded in 1972. The firm mainly invests in technology firms across the globe. Having invested in companies like Apple, Google, Spotify, Nvidia, Stripe, and Klarna at very early stages, Sequoia has a very impressive track record.

Sequoia has been quite hands-on in several of its investments, and usually assists and guides founders in taking their companies to the next level. To our understanding, Sequoia opened Truecaller's eyes towards the potential of the Indian market.

Below is a list of some of the investments that Sequoia has made.

| Sequoia investments | Apple | Nvidia | Google | Unity | ServiceNow | Stripe | Klarna | Truecaller | Snowflake |
|-----------------------|-------|--------|--------|-------|------------|--------|--------|------------|-----------|
| Founded | 1976 | 1993 | 1998 | 2004 | 2003 | 2010 | 2005 | 2009 | 2012 |
| Investment by Sequoia | 1978 | 1993 | 1999 | 2009 | 2009 | 2010 | 2010 | 2013 | 2018 |
| IPO | 1980 | 1999 | 2004 | 2020 | 2012 | - | - | 2021 | 2020 |

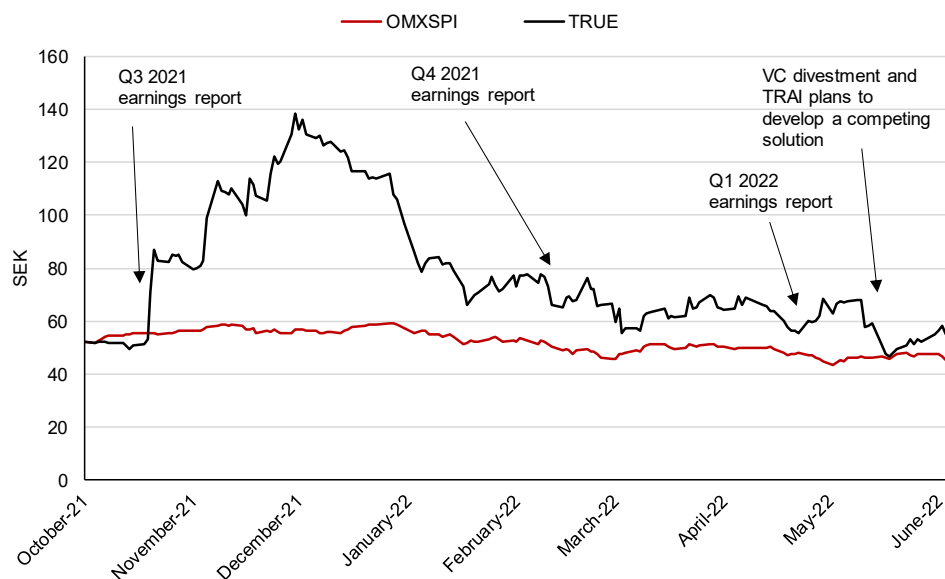
Source: Redeye Research

Exiting VC firms could constitute a wet blanket for the share price

On May 17th, 2022, Sequoia Capital, Kleiner Perkins, and Atomico sold 10%, 16%, and 37% respectively of their previous holdings in Truecaller. We see a reasonable probability of these players wanting to further reduce their holdings overtime. Considering that they still have major holdings in Truecaller, combined with their presumed willingness to sell more shares, we see a risk of these VC players constituting a wet blanket over the share price.

The share

Truecaller was listed in October 2021 at a share price of SEK 52 per share. Since the IPO, the company has delivered three strong earnings reports, which are the only major events that have happened since then. There have also been a few customer announcements for TfB and the announcement of the acquisition of CallHero. However, these events have been small in relation to the earnings reports. The VC divestment (as discussed above) and the Telecom Regulatory Authority of India (TRAI) stating plans to develop a caller ID system with some overlapping features as the Truecaller app (23 May) has led to recent sell-off. The share has recovered slightly since then and is currently trading around the listing price.



Source: Redeye Research

Narrative

Truecaller has grown rapidly for many years and now has a massive user base exceeding 310m MAUs. However, we believe the stock market is still hesitant about the value proposition due to the app not working as well in their own surrounding because of a higher share of iPhones and a generally lower caller-identification rate – the current iOS offering is not at all at par with that of Android.

The company benefits from structural tailwinds as spam, scam, and frauds increase in developed markets as well.

Truecaller is, we believe, set to use its proven playbook in new markets and build up an almost impenetrable moat. However, we still do not see that the market has grasped the strength of Truecaller's data moats.

The business remains under-monetized but is poised to lever its 310m+ MAUs by improving ARPU by mainly increasing ad load, but also improved CPM rates. Also, we believe Truecaller for Business will be an important growth driver in the coming years.

Rapid and long-lasting growth for many years to come will, in our view, reveal the scalable business model and its high operating leverage. The terminal EBIT margin could well exceed the market's expectations.

We think the market worries about regulatory changes surrounding data protection and about the possibility of the Indian government developing a rivaling solution in the future. While we believe India's new data regulation will be beneficial for Truecaller, we do consider this an important concern in other markets. Regarding the Indian government's attempt at creating an own caller-verification app, we believe this threat is largely overestimated.

Business Model

Truecaller has two main products: one consumer app and one enterprise product.

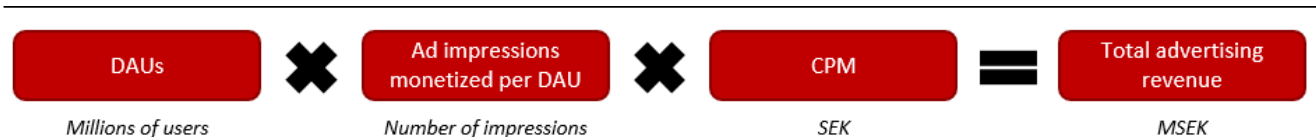
The consumer app has a “freemium” business model, meaning it offers both a free version and an upgraded and paid-for premium version. The business model of the free version is third-party advertising.

The enterprise product, Truecaller for Business (TfB), has a volume-based subscription model.

Advertising – Consumer Product: Free for the User, Financed by Ads

Advertising is by far Truecaller’s greatest revenue stream and constituted 85% of total revenues in 2021.

The following illustration explains the business model.



Source: company data

Total advertising revenue is the number of daily active users multiplied by the number of ad impressions these receive each day, further multiplied by the cost that advertisers pay for these ad impressions.

DAUs – impacted by MAUs and the DAU/MAU ratio

As with all apps, there are monthly active users (MAUs) and daily active users (DAUs). The DAU/MAU ratio measures the share of MAUs that are active daily. This share explains user engagement and how important the app is to them. A way of increasing ad revenue is to increase the DAU/MAU ratio. By Q1 2022, Truecaller’s DAU/MAU ratio was 80%, having increased steadily in recent years.

Ad impressions monetized per DAU – engagement, ad inventory, fill rate, and render rate

While ad impressions monetized per DAU may appear simple and straightforward, there are several underlying levers that impact this metric. Each of these is heavily impactful on ad revenues.

First, **engagement** shows how many interactions each user has with the app per day, as well as the length of time of each interaction. The more interactions, and the longer each interaction is, the more time there is to expose the user to more ads.

Second, **ad inventory** is the amount of ad space that Truecaller has available to sell; in other words, the number of ads Truecaller believes its users can handle without getting too annoyed, which could lead to churn or users spreading negative word-of-mouth.

Third, **fill rate** is the percentage of the ad inventory that is matched with demand from an advertiser. This tells us how attractive Truecaller is as an advertising partner. If very attractive, the offered ad space is immediately booked by advertisers. However, Truecaller also needs these ads to be *exposed* to users before it receives revenue.

Last, **render rate** looks at the above dynamic, i.e., the percentage of *booked* ads that are also *exposed* to the user, and thus paid for. Render rate is impacted by the speed at which ads load. In other words, if an ad is meant to be exposed to a user but the user closes the page

view before being exposed to the ad, the render rate goes down. Render rates are thus impacted by latency, in turn impacted by the user's internet speed and the technology optimization of the app.

CPM – geographically dependent, correlates with ad inventory

CPM (cost per 1,000 impressions) is the price that advertisers pay to be shown on the Truecaller app. While CPM rates are very important, this metric is to some extent beyond Truecaller's control.

First, CPM rates are largely dependent on the current supply/demand situation for ads, meaning a natural trade-off between ad inventory and CPM: when there is high inventory (supply), the CPM goes down, and vice versa.

Also, CPM as a category is structurally growing as consumers become increasingly digital.

However, there are also parts of the CPM rate that are within Truecaller's control, such as sales channel (direct sales can offer 3-5x the price), format (larger sized ads or video ads give a higher CPM than small image ads), and level of audience targeting/segmentation (the more personalized the ads are, the better click rates and conversion rates they receive). These all boost the CPM rate.

Last, blended CPM is also dependent on the geographical distribution of Truecaller's user base because different markets have different CPM rates. While India typically has a CPM rate below SEK 1.5, the CPM rate in the US often exceeds SEK 5. As Truecaller expands into markets with medium or high CPM rates, the blended CPM will improve.

Premium Subscription: Ad-Free Version of the Consumer Product

The premium version, which is free from ads, was launched in 2018. Premium subscriptions accounted for 12% of total revenues for full-year 2021. As of Q1 2022, Truecaller had 1.61m paying subscribers and 310m MAUs, meaning only 0.52% of MAUs had been converted to Premium. Perhaps even more relevant is the share of DAUs converted to Premium, which stood at a mere 0.65%.

Considering the low ratio between premium subscribers and DAUs, the fact that Premium still accounted for 12% of revenues in 2021 implies abundant potential. This means that a five percent ratio of premium subscribers/DAU implies that premium subscriptions would give as much revenue as Advertising.

We see two ways for Truecaller to improve the premium subscriber/DAU ratio: geographical mix; and a larger value differentiation between the free and premium versions.

Geographical mix: Moving into higher-income markets should help

The willingness to pay for apps correlates strongly with the income level of the demographic group. Higher income generally implies a greater willingness to pay for an app. In India, willingness to pay for an app is quite low, which partly explains Truecaller's low ratio between premium users and DAUs. Moving into higher-income markets should thus lead to a higher take rate on this ratio. We see market success in the US as offering significant uptake.

Greater value differentiation between Free and Premium should drive conversion

While a geographical mix more tilted toward higher-income markets can drive conversion of premium subscriptions, we do not believe it is enough. For conversion to become high, the perceived value for Premium needs to be big enough in relation to the free offering.

There are several ways to do this, and they can be categorized in two buckets: "forced" and "willful" conversion.

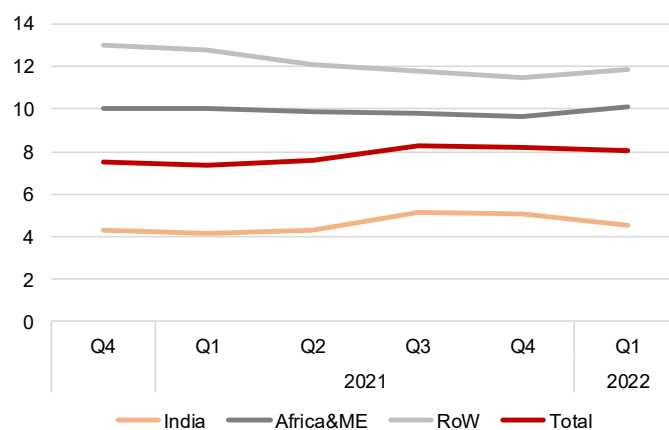
“Forced” conversion implies worsening the user experience on the free version, making the users annoyed with the free version but with the app still too valuable for them to churn. This forces users to switch to Premium mode. An example of this is Spotify, whose free version includes too many ads for most users. The perceived value of the ad-free version of Spotify is so important to users, however, that most switch the premium service.

“Willful” conversion implies improving Premium so much that the users themselves perceive the extra value as so high that they choose to switch to Premium. An example of this is LinkedIn, the free version of which is perceived as valuable. However, the value for a business to write “InMail” to people outside its own network is so great that the premium version is worth paying for. Another example is the dating app Tinder, where premium users increase their efficiency and precision so much that it makes sense for them to pay for it.

Monthly ARPU around SEK 8 but with large geographical variations

The monthly ARPU for subscriptions is around SEK 8, but with large variations between the markets. See below:

Truecaller: Subscriber ARPU per Region (SEK per Month)



Source: Company Data & Redeye Research

Total ARPU has increased from SEK 7.47 to above SEK 8.05 in 15 months. This is an effect of more subscribers outside India. ARPU in India is just above SEK 4, compared to SEK 10 for Africa & ME and SEK 12 for Rest of World. This means that the blended ARPU would increase if India becomes a smaller share of the total.

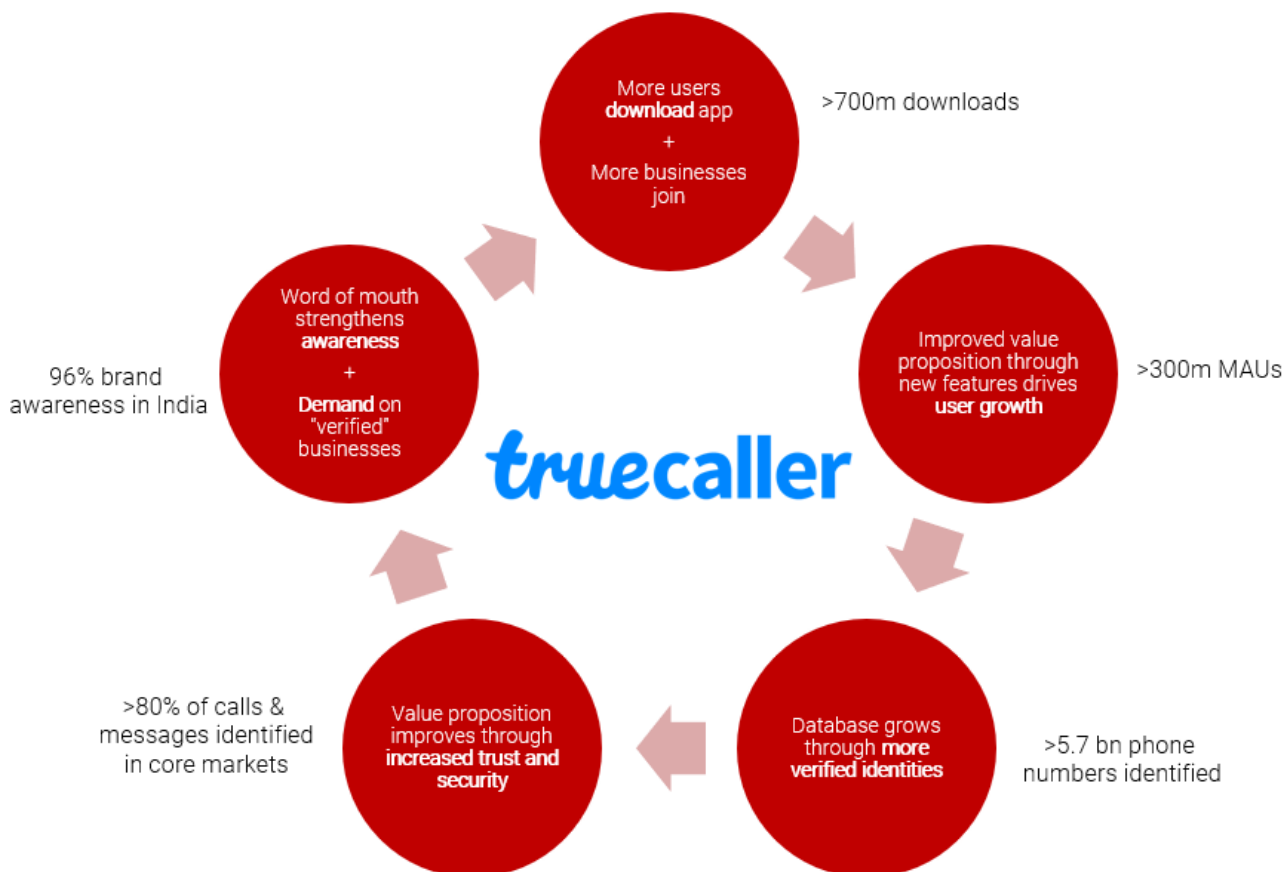
Truecaller for Business: Volume-Based Subscriptions

Truecaller for Business (TfB) was launched in late 2020 and accounted for 3% of group revenue for full-year 2021. TfB uses a volume-based subscription fee, the pricing of which is determined by monthly call volumes to customers.

TfB offers various packages, beginning with one low enough to be attractive in emerging markets, rising to customizable versions at high volumes. The fee is billed in advance and the subscription is based on auto-renewal.

Network Effects Continuously Strengthen Business and Constitute an Important Moat

Data is key to creating a competitive offering in the market for spam identification. As the user base grows, more data is collected, which improves the value proposition, and this in turn attracts more users, and so the cycle continues.



Source: Redeye Research

The dynamic of Truecaller's business model creates certain feedback loops that together constitute important network effects. This makes Truecaller's value proposition increasingly attractive the more users it acquires.

Truecaller's initial value proposition solves a genuine consumer need regarding stopping spam and fraud calls. As consumers join Truecaller, the company gets additional users and access to their incoming calls and texts, which increases Truecaller's database of identities. This continuously improves the app's accuracy in correctly judging whether a caller is fraudulent or not. Improved certainty of calls and texts as relevant and secure increases the users' sense of trust and security, which are the main drivers of Truecaller's value proposition.

The strengthened value proposition creates a type of "virality" that is crucial for continued user growth. First, it ensures that the Truecaller app is positioned in the top ranking on Google Play Store and AppStore, making consumers more likely to download the app. Second, the improved value proposition makes users more likely to talk about the app to their friends, such as when a friend is upset after receiving a spam call.

As more users know about Truecaller's ability to accurately identify relevant calls and texts, users start demanding that *real* businesses ensure they are not treated as spam/fraud, so that consumers receive the messages from their banks, hospital, food delivery, etc. This increases the pressure on businesses to join TFB and become "verified."

Finally, as word spreads about the Truecaller app and TFB, more users and businesses join, which reinforces this ongoing cycle.

Database depth constitutes the company's main competitive moat

Truecaller's biggest moat is the depth of its database, which provides it with a superior product, as it can block more spam callers with greater precision. Truecaller has more than 5.7 billion consumer and business phone numbers identified, built by the community and its machine-learning algorithms.

This dataset is continuously enriched by information generated directly by users (e.g., data input and feedback) and from inferences from platform activity (e.g., data signals in the traffic). For example, Truecaller's algorithms can detect robo-calling patterns and identify them as possible unwanted communications mainly by identifying extreme calling frequencies. The continuously increasing dataset enables Truecaller to identify more than 80% of calls and messages in its core markets, leading to a high share of its users using the app daily.

Data restrictions from Alphabet and Apple assist in maintaining the moats

As the company's main moat is its dataset of phone numbers with its verified identities, the main way to compete with Truecaller is to build an equally strong set of data; in theory, this could come from scraping data from users' phone books. However, Alphabet and Apple have banned all apps from uploading users' phone books to their servers, which would have been a shortcut for Truecaller's competitors. These giants are thus helping to maintain Truecaller's data moats.

Stickiness is confirmed by the numbers

Having reached more than 700 million downloads (around 95% of this organically), Truecaller is confirmed as a viral and sticky service. Half of downloads become MAUs, and 50% of downloads since 2014 are still MAUs.

We find the DAU/MAU ratio a good metric to measure the engagement and usefulness of the Truecaller app, as it shows the share of monthly users that also use the app daily. 80% of MAUs are also DAUs, up from less than 70% in 2018, implying the app is becoming increasingly important to users. Also, the average DAU has 19 daily interactions with the Truecaller app.

The app is also a top-ranked communication platform. On a global basis, Truecaller qualifies in the top ten, while it is in the top three in India, Egypt, and Israel, behind only Facebook and WhatsApp. The Truecaller app is in the top ten in a further 20 countries, including Indonesia, Malaysia, Nigeria, and South Africa.

Last, Truecaller is a well-known brand: brand awareness in India was recently measured at 96%.

Customers

Truecaller's consumer app targets the entire smartphone populations in more than 175 countries. While the value proposition is superior in countries where spam calls/messages are more frequent, the app is still aimed at all demographics in all countries. However, this is different from saying that Truecaller is focusing on all markets.

Our impression is that TfB also has a wide focus. However, since the core value proposition is to increase trust between a business and its consumers, we believe B2C companies constitute the core target group. Most of TfB's customers are in banking, ed-tech, and healthcare.

Value Proposition

Users in core markets experience significant volumes of communication from unknown numbers; Truecaller estimates that people in these markets receive more than 40 calls and messages each week on average from callers not in their phonebooks. Truecaller's core markets are commonly referred to as "mobile first," meaning that smartphone penetration is much higher than personal computer penetration. Since smartphone penetration and usage are set to increase in these markets, it is safe to assume that pain points in mobile communication will likely follow suit. As a leading global platform for verifying contacts and blocking unwanted calls and messages, Truecaller can provide meaningful value for consumers, businesses, and advertisers.

For consumers

Truecaller has, since its inception, built a database of more than 5.7bn consumer and business phone numbers through community contributions and machine learning technology. Each day, it processes more than 3.2bn calls and identifies about 100m of these as spam. This vast database enables the company to identify more than 80% of calls and messages in core markets, and thus deliver on its mission: to create more trust in mobile communication by making it smarter, safer, and more efficient.

For businesses

Much of the communication from unknown numbers is spam, but a large portion originates from legitimate businesses. Truecaller estimates that 70% of calls from businesses are not answered because consumers do not recognize the number. By creating a verified profile on Truecaller, businesses improve pick-up rates and ultimately convert conversations into transactions, generating a particularly attractive ROI.

For advertisers

Advertisers gain access to an enormous audience: Truecaller had 248m DAUs as of Q1 2022. This translates into billions of opportunities to serve ads to users each day, as DAUs interact, on average, 19 times with the app each day. Moreover, users interact with the app frequently, illustrated by a DAU/MAU ratio of 80%. This makes Truecaller well suited for high-frequency and high-reach campaigns. Additional value is generated thanks to high brand safety standards and the ability to custom ad solutions at scale.

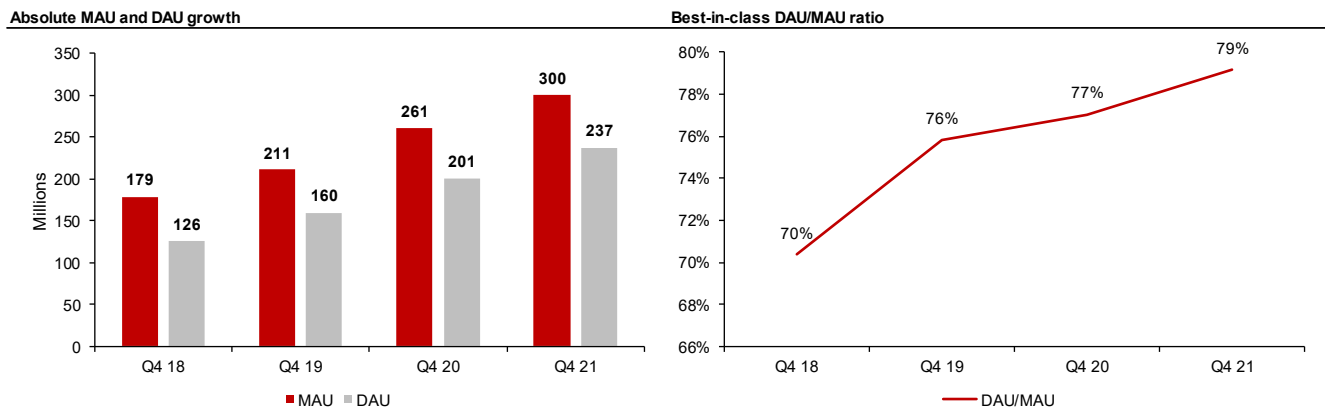
Value proposition for advertisers



Source: company data

Truecaller is highly integrated in the daily lives of its users

Truecaller had 310.1m MAUs and 247.7m DAUs in Q1 2022 (defined as the average for the quarter). This translates into a DAU to MAU engagement ratio of 80% in the quarter, meaning that 80% of monthly users are active on a daily basis. The higher the ratio the better, as it indicates stickiness and users consistently returning to the app. The ratio has increased over the last couple of years, as seen in the chart below. This is an encouraging trend, in our opinion, and confirms a positive market response for Truecaller's latest product updates and feature releases. It also highlights how tightly integrated Truecaller is into the daily lives of its users.



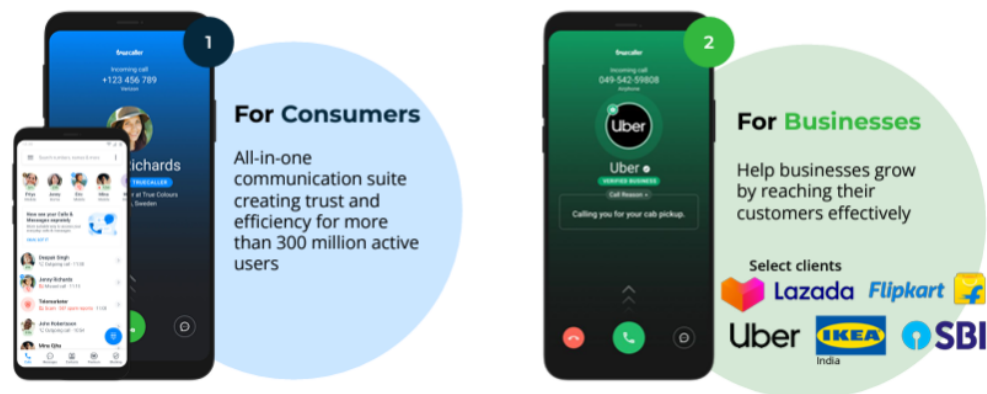
Source: Redeye Research, company data

Peer comparison confirms best-in-class DAU to MAU

Multiple sources state that a DAU to MAU ratio of more than 20% should be considered good, and above 50% is excellent. Facebook had, on average, 1.93bn DAUs in Q4 2021 and has reported a consistent DAU to MAU ratio of 66-67% for Q1 2020 to Q4 2021. Meta (Facebook, Instagram, Messenger, and WhatsApp) reported an average 2.82bn DAP (daily active people) in Q4 2021. Its DAP to MAP ratio for Q1 2020 to Q4 2021 has consistently been 78-79%. We see this confirming that Truecaller has posted best-in-class results, very much in line with the leading communication platforms.

Product Offering

Both Truecaller's flagship consumer app (Truecaller) and its recently launched B2B offering (Truecaller for Business) create a more reliable and efficient communication environment by providing spam blocking and smart communication features. Moreover, the company launched Guardians, a personal safety and location sharing app, in March 2021.



Source: Truecaller

Truecaller: The Consumer-Facing App

The consumer-facing app is available on iOS and Android and is used by more than 310m MAUs (as of Q1 2022). It is the leading global platform for phone number verification and call blocking, and it enables a safe and efficient calling and messaging experience thanks to uniquely verified identities. Truecaller version 12 is the latest available on Android (as of May 2022) and, in addition to feature updates, it includes technical enhancements to improve, e.g., speed and performance. It is available as a free-ad-supported version (Basic Access) and a premium-ad-free version (Premium) with additional features.

Call features

Caller ID is the flagship call feature and is often the main reason users start to engage with Truecaller. Caller ID enables the call recipient to identify a caller in real time by displaying information such as their name, designation, location, and carrier. Most importantly, Caller ID helps the call recipient understand if the call is spam, and provides contextual information, e.g., this is likely a sales call. Truecaller expands on its Caller ID offering on an ongoing basis through new functionality and feature releases. One such example is **Video Caller ID** (available on Android version 12), which enables the caller to make a personal video that appears on the screen of the call recipient.

CallHero, which Truecaller acquired in Q1 2022, has developed an AI-powered digital assistant. This technology will be integrated into the Truecaller app, and when finalized, will include a feature called **Truecaller Assistant** to answer calls from callers not in the contacts book of the recipient. Truecaller Assistant will request that the caller verifies itself and the reason for calling. Truecaller Assistant transcribes the answer (audio-to-text technology) onto the recipient's screen. The recipient can then decide whether to answer the call or not.

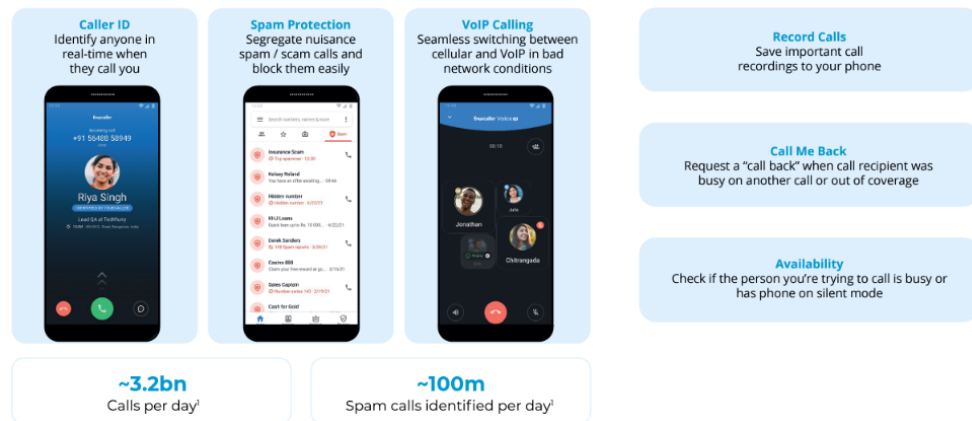
Spam Protection is a core feature in the Truecaller app. Thanks to a community of more than 310m MAUs that continuously report on spam calls, Truecaller protects its users in real time from domestic and international spam numbers. This feature will highlight how active a spammer is and what subject it usually concerns (e.g., insurance spam or political

robocalling). Truecaller users can create manual block lists and let Caller ID detect top spammers automatically.

Truecaller provides smart tools to make communication more efficient, such as allowing users to see if the recipient is busy, in another call, or in silent mode. Another example is **seamless switching between cellular calls and VoIP** (Voice over IP), if calling parties experience bad network conditions.

Calling

Trusted and Efficient Calling



Source: Truecaller

Messaging features

Truecaller messaging can be used as a preferred chat/messaging platform thanks to its comprehensive spam-blocking tools and smart chat features. Truecaller processes more than 127m messages each day (as of Q1 2021), corresponding to an average of 0.5 daily messages sent per DAU.

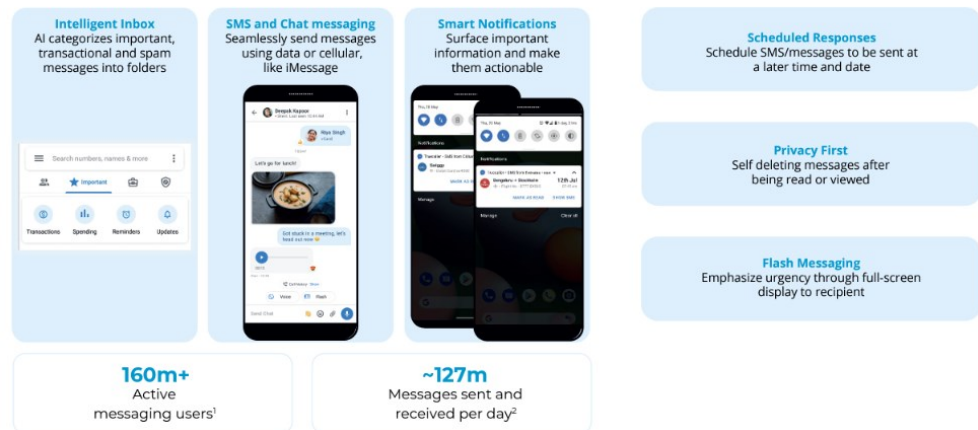
Smart SMS automatically categorizes messages into folders (Personal, Important, Business, and Spam) using AI and machine-learning capabilities. As well as making the messaging experience more efficient (e.g., easier to find old messages), machine-learning models automate spam SMS detection based on global user feedback.

Another feature is **Smart Cards**, through which Truecaller highlights the relevant content from a lengthy SMS to make it more digestible for the recipient. These machine-learning initiatives are performed locally on the recipient's device and do not compromise the user's privacy.

Urgent messaging enables the recipient to read a message and respond without having to unlock their screen, improving the core experience by making it more efficient. This feature was rolled out in Q1 2022. Other important features are the enabling of seamless switching between **SMS and chat messaging** (as with calling) and **scheduled responses**.

Messaging

We Have Also Built a Trusted Environment for Messaging



Source: Truecaller

Truecaller Premium

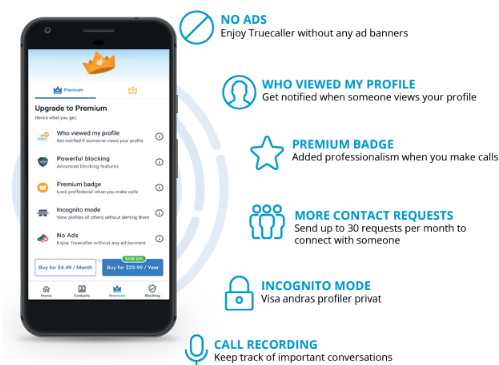
A premium subscription unlocks features not available on the free version of the app (see examples below), creating an ad-free environment. The subscription is paid in advance, monthly or annually, and is subject to localization, i.e., it differs between markets.

The price in Sweden is SEK 39/month or SEK 259/year. The price in India, on the other hand, is about RS 500/year, which is around SEK 64. In addition to this, Truecaller offers a gold subscription, priced at SEK 1,995/year in Sweden, which unlocks the most advanced features and provides dedicated support.

Our understanding is that premium adoption (defined as premium subscribers as a share of DAUs) differs significantly between different markets. According to the company, less than one percent of Indian DAUs are premium subscribers, while in the US that figure is more than five percent. Generally, consumers in emerging markets are less used to and less prone to paying for subscriptions.

Value-added solutions bundled into attractive packages via the freemium model ...

Truecaller Premium: Advanced Power User Capabilities



Attractive packages

| BASIC | PREMIUM | GOLD |
|--|--|--|
| FREE | | |
| <ul style="list-style-type: none"> • Caller ID • Spam Blocking • No ads • Who Viewed My Profile • Premium Badge • More Contact Requests • Incognito Mode • Call Recording • Gold Caller ID • Premium Support | <ul style="list-style-type: none"> • Caller ID • Spam Blocking • No ads • Who Viewed My Profile • Premium Badge • More Contact Requests • Incognito Mode • Call Recording • Gold Caller ID • Premium Support | <ul style="list-style-type: none"> • Caller ID • Spam Blocking • No ads • Who Viewed My Profile • Premium Badge • More Contact Requests • Incognito Mode • Call Recording • Gold Caller ID • Premium Support |
| FREE DOWNLOAD | BILLED IN ADVANCE AUTO-RENEW | BILLED IN ADVANCE AUTO-RENEW |

Source: Truecaller

iOS vs Android: Very different experiences

The iOS and Android operating systems differ extensively in terms of flexibility for app developers. The bottom line is that Android allows more freedom of creativity for developers when designing an app. iOS is far more restrictive about changes within the operating system.

The iOS environment is referred to as closed source, whereas Android is based on open source.

For Truecaller, this means the user experience is much better on Android, as many app features are not available on iOS. Live Caller ID, blocking incoming spam calls, and identifying incoming spam calls without a list being downloaded to the phone, are examples of features available on Android but not iOS. This makes a considerable difference to the user experience, since Live Caller ID is, in our opinion, the main way of starting to interact with Truecaller.

While Android users account for 96% of total users, Truecaller has prioritized the enhancement of its iOS offering to appeal to customers in high CPM markets such as the US and Europe, where iOS is more common than in core markets. Management commentary (Q1 2022 earnings call) states that a fully reworked iOS product will launch at some point in 2022. Moreover, it states it has seen higher iOS engagement since improving hygiene factors such as start-up time and better call kit integration to show more results on iOS.

Truecaller for Business

Truecaller for Business (TfB) is a B2B product that was launched in Q4 2020. It helps enterprises reach their customers in a trusted and representable manner by having a verified Truecaller identity. Enterprises can integrate their messaging experience into TfB, enabling them to use Truecaller's communication tools (such as Call Reason). Ultimately, TfB helps enterprises improve pick-up rates and convert conversations into transactions.

Problems Truecaller for Business is Trying to Solve



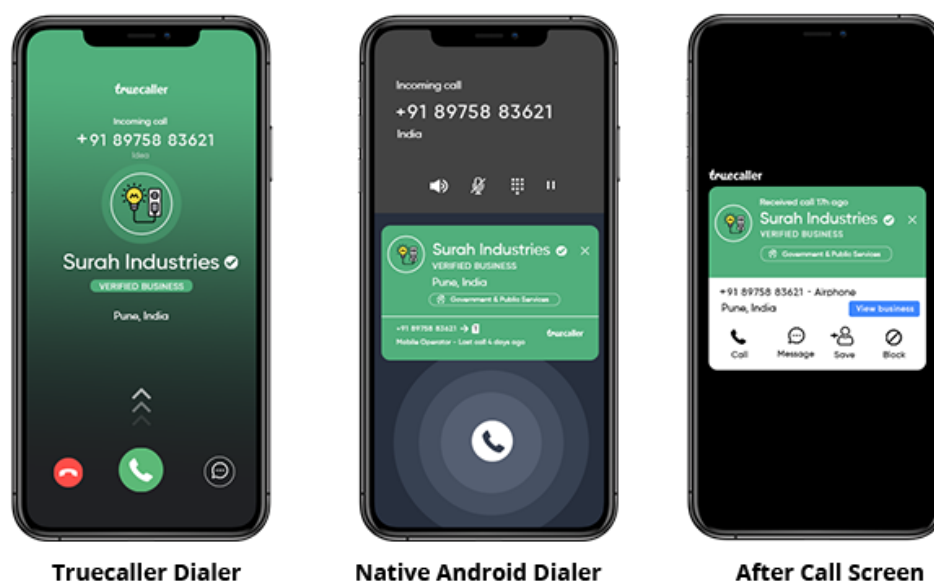
Source: Truecaller

Business calling

Enterprises using TfB receive a verified identity on the Truecaller platform showing their brand logo and brand name on a green background, with a verified icon and "Verified Business" badge. The distinct green Caller ID is then displayed to call recipients to reassure them that a legitimate business is making the call.

TfB is an efficient way of improving pick-up rates—Truecaller estimates that 70% of calls are not picked up if the call recipient does not recognize the number—and preventing impersonations that can lead to scams. Other business-calling features include **Priority Caller ID status**, which can be used for time-sensitive matters, e.g., food deliveries and ride hailing.

Enterprises gain access to a dashboard that enables them to manage call reason settings and to collect feedback from a customer regarding the service quality after a call, among other features. This information provides enterprises with actionable insights that can help them to improve outreach.



Source: Ameyo

Business messaging

Creating a safe and reliable solution for business messaging is a core part of the value proposition. However, another important factor is that TfB messaging enables a more cost-efficient alternative to traditional channels. When using traditional messaging channels, enterprises risk being affected by high network carrier prices, message delivery failure (owing to clogged cellular networks), and impersonation. Finally, business messaging enables interactive two-way communication, which traditional channels do not.

Partner authentication

Truecaller provides a free authentication API software development kit (API SDK) for app developers. This provides a simple plug-and-play consumer identity verification that can be used in various apps. The verification plugin creates a smoother customer journey and prevents drop-offs in the sales funnel in the apps where the plugin is used.

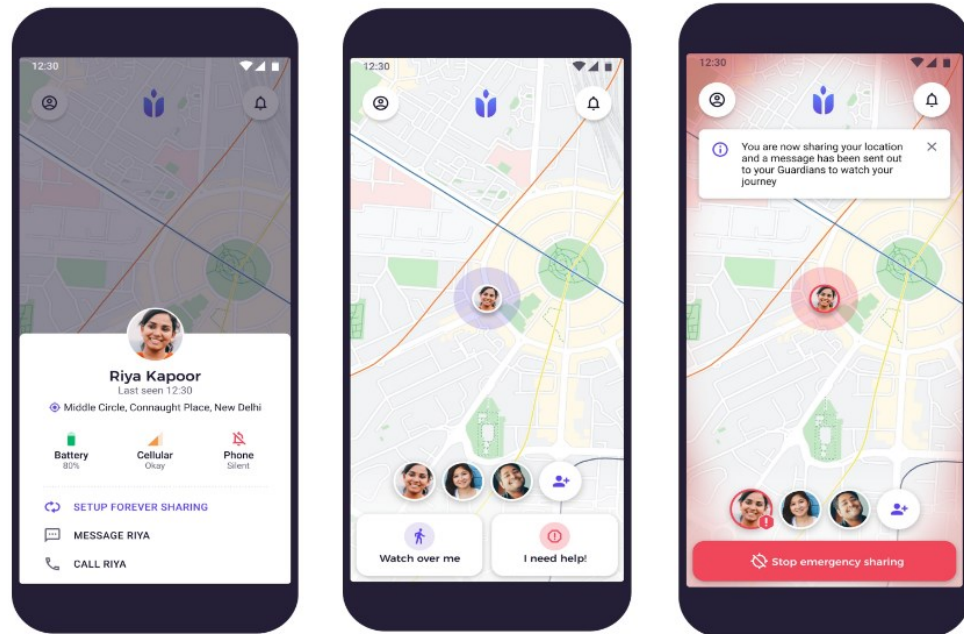
Guardians

Guardians is a personal safety and location-sharing app launched by Truecaller in March 2021. After downloading the app, users choose who they want to add as guardians. These people receive an SMS inviting them to install the app and become a guardian. Some of the most important features include:

- **Forever sharing** enables users to share their location, battery level, network strength, and phone state with their guardians at all times
- **Watch over me** is a feature that helps users to share their location for a limited period of time, e.g., during a late-night taxi ride
- **I need help** is triggered by the user in an emergency situation and alerts guardians, who can then follow the user's location in real time and send help

Guardians has amassed more than 1m downloads on Google Play and receives a 4.8/5.0 rating, based on around 70,000 reviews. So far, it has fewer than 1,000 reviews on the Apple App Store. The app is completely free, and we assume that ad monetization is very limited, based on the usage. However, we believe this goes to show the entrepreneurial culture at

Truecaller and its commitment to increasing safety, whether it is in the digital or the real world.



Source: The Global Indian

Sales Channels to Acquire Users/Customers

In this section, we look first at the channels through which Truecaller attracts users and advertisers to its consumer app. Then we dig into the ways TfB attracts new customers.

Consumer App: Organic Growth Historically, but More UA Ahead

Until the IPO, 97% of new users converted organically, meaning growth basically occurred without paid advertising. This is a key strength of the service and demonstrates that the app is beginning to become a “must” in certain markets.

Since the IPO, however, the company has increased its UA (user acquisition) spending to accelerate user growth. Truecaller expects sales costs, including UA, marketing, and pre-loads, to further accelerate in 2022 to 2-3x the 2021 levels.

The path to the premium version is normally after a user has started using Truecaller extensively for some time. Truecaller has also started various initiatives to promote this feature. More on this in the section for “Business Strategy”.

Collaboration with OEMs, with Truecaller pre-installed on the phone

Truecaller has ongoing partnerships with some phone manufacturers, including that these OEMs have Truecaller pre-installed on each phone sold. The OEM then earns a fee for each user that activates a Truecaller account. This channel is referred to as “preloads.”

This is partly beneficial because users tend to prioritize the default apps in a phone. Also, this model is good for customers in emerging markets with poor internet service where the downloading process itself includes friction. This means when users visit Google Play or App Store to download the app, they are positively surprised as Truecaller is already installed.

At some point in a market’s maturity (likely somewhere after 50% penetration in a country), the preload strategy starts cannibalizing too much: the app is pre-installed in too many cases where the user would have installed it anyway. This implies worsened economics for Truecaller, as it would not have had to pay the fee to the OEM but did so anyway. At this point, Truecaller dismisses this UA strategy. Until then, however, it is considered important.

Targeting 100m pre-loads in 2022 and 2023 in core markets

In 2022 and 2023, Truecaller has a target of more than 100 million smartphone pre-loads in selected markets, including India, Indonesia, Malaysia.

Estimated Customer Acquisition Cost of ~SEK 2

Truecaller states that it usually has a payback time on user acquisition of less than one year. This means that customer acquisition cost (CAC) should be less than blended ARPU (both free and premium version) multiplied by the probability of user conversion.

Annualized revenues for the consumer app of SEK 1,500m (based on Q1 2022 run rate), versus 310m MAUs, gives a blended ARPU (for MAUs) of SEK 5. Considering that more than 50% of India's smartphone population uses Truecaller, we assume that conversion rate is 40% since conversion outside India is likely lower. Thus, we assume that CAC for pre-loads is around SEK 2 per smartphone.

Truecaller for Business: Direct Sales, Resellers, and Partner Authentication

Truecaller has three main channels for growing TfB: direct sales; partner authentication through Truecaller’s own SDK; and via resellers. All channels are then boosted by Truecaller’s increased efforts with its self-serve portal.

As of August 2021, the distribution of the different sales channels was:

- 55% inbound sales (the customer contacts Truecaller and not the other way around)
- 15% through channel partners/resellers
- 23% from API SDK partners
- 8 % outbound sales

The high share of inbound sales is a sign of quality.

Direct sales

Truecaller has its own sales force that actively reaches out to the largest and most attractive companies.

Partner authentication through API software development kits

Truecaller provides a free authentication API software development kit (API SDK) to app developers. This provides a simple plug-and-play consumer-identity verification that can be used in various apps.

The verification plugin creates a smoother customer journey and prevents drop-offs in the sales funnel in the apps where the plugin is used. The smoother customer journey increases conversion, lowering the customer acquisition cost (CAC) for the companies behind these apps.

The plugin demands a Truecaller identity, which means users of these apps need to join Truecaller if they are not already on it. This can be compared to using the Facebook login on other apps or webpages. This method increases the lock-in effect for users of Truecaller since they will not be able to log in to these apps without their Truecaller identity.

Consequently, the API SDK reinforces the strength of the Truecaller identity, while also increasing the association of Truecaller as a verification enabler.

And finally, a large proportion of the SDK partners become customers to TfB. As of September 2020, 23% of customers were leads stemming from being API SDK partners.

Reseller partners – a way to gain volumes but to lower margins

To expand the product reach further, TfB works with CPaaS (Communication Platform as a Service) players who sell their communication infrastructure and/or telephony services to businesses.

The ingoing CPaaS companies are chosen for their market leadership and the scale this brings. Generally, Truecaller chooses CPaaS partners based on the partners' overall reach, as well as the breadth and depth of their penetration of each ecosystem. Emphasis is also placed on the scale of the customer-facing teams, to judge the growth ambitions ahead.

While this sales channel is important to further fuel growth, it weighs on Truecaller's gross margin.

The value chain from businesses, through CPaaS and Truecaller, to consumers

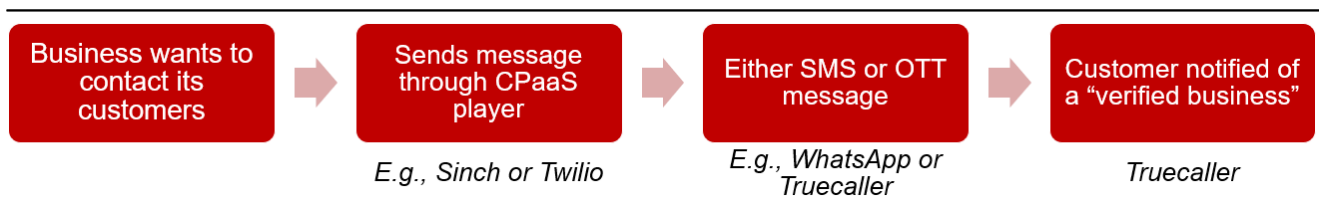
CPaaS players like Twilio or Sinch enable businesses to contact their customers individually or by group. This can be everything from a general marketing message to a personalized message for a specific errand between the company and its customer.

These messages are typically sent through SMS, but can also be sent through OTT services like WhatsApp, Messenger, Telegram, Truecaller etc. In these cases, the consumer asks itself

whether the sender of the message is who it claims to be, or not. Thus, there is an obvious need of verifying the business, which ultimately aims to increase the trust from the consumer towards the business, thus enabling safer and more effective communication.

Hence, Truecaller is a natural part of this value chain between businesses and consumers through CPaaS players. The easy add-on of TfB in the CPaaS offering makes these players good reselling partners for TfB. Truecaller provides, essentially, the last mile experience, and owns the UX/UI on the message display.

Below is an illustration of how Truecaller interacts with CPaaS players and why these are attractive reseller partners for TfB. Truecaller provides, essentially, the last mile experience, and owns the UX/UI on the message display.



Source: Redeye Research

Self-serve portal: Increased efforts for self-onboarding for increased scalability

To minimize customer friction and also to increase the scalability of TfB, the service has a self-serve portal for self-onboarding. This means enterprise customers can, increasingly independent of Truecaller personnel, get up and running with TfB and upgrade their usage plan. This is a win-win set-up that allows customers to get up to speed at their own pace, while Truecaller gets a higher-margin profile as the need to increase OPEX to onboard customers decreases.

Attracting Advertisers: Mainly Ad Auctions but Increasing Efforts on Direct Sales

Truecaller receives around 85% of its revenues from ads on its consumer app, from businesses that want to advertise on Truecaller's platform. The main value proposition to advertisers is to reach an audience of millions of users in short time frames of one to two days, plus the ability to target specific audiences.

A substantial majority of Truecaller's ad sales come from programmatic ads (84% in 2020), meaning Truecaller is integrated with several "ad exchanges," primarily Google Open Bidding and Facebook. Ad exchanges are marketplaces where advertisers meet advertising platforms like Truecaller.

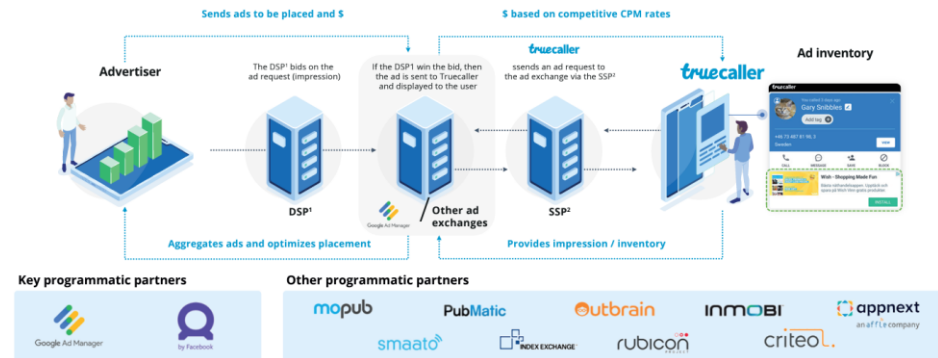
The demand from advertisers represents the demand side of the platform (DSP in the diagram below), whereas the ad inventory (the potential ad space on e.g., mobile apps multiplied by the number of user interactions) from advertising platforms constitutes the supply side (SSP in the diagram).

The process starts with an advertising platform sending an ad request to the ad exchange via the SSP. Advertisers then bid on an ad request, meaning bidding on exposing its ads with a certain number of impressions on a specific platform.

The whole process operates like an auction where supply meets demand, resulting in a balanced CPM rate that resembles the current supply for ad inventory.

Truecaller integrates with Google, Facebook and other demand partners to monetise via programmatic ads

Programmatic advertising process overview



Source: Truecaller

Launch of own ad server has benefited CPM rate

In late 2020, Truecaller began its efforts to create its own ad server, and this is continuously evolving. An ad server is a technology used by advertisers (demand) and publishers (supply) to store, manage, and distribute ads to apps or websites.

Truecaller's ad server works in tandem with Google's ad server. Together, these aim to maximize the number of demand partners, which in turn leads to maximizing the fill rate and optimizing CPM.

The own ad server has been important in strengthening CPM. Before, Google could come first in line despite not offering the highest price, which naturally lowered the blended CPM.

As such, launching its own ad server has changed the power dynamic slightly, meaning Truecaller is not as much in the hands of Google as it was.

Business Strategy

Truecaller's strategy is based on three pillars:

1. Maintaining market leadership in trusted communication for consumers and businesses
2. Investing more in strong revenue models
3. Unlocking new growth opportunities

The first part includes investments in the core product and creating an all-in-one app for reliable communication. The second involves investments in the ad-tech platform and the premium service. The last part of the strategy is about investments into new opportunities, as well as scaling TfB.

Strategic Pillar I: Maintaining Market Leadership in Trusted Communication for Consumers and Businesses

This first pillar of the strategy is about user growth and the ways Truecaller aims to attract users by building a better and more comprehensive user experience.

Investments in the core product

Truecaller aims to enhance user engagement, maintain market dominance through AI, and deepen integration with external partners and enterprises.

User engagement will be enhanced by expanding use cases in the core Calling and Messaging functions, as well as by creating new product features for increased engagement both "in-app" and "off-app." Some of the coming features are: 1) video caller ID; 2) disposable numbers; 3) smart SMS for other languages than English; and 4) Truecaller chat on the web.

Dominance in spam protection will be maintained through AI (artificial intelligence) and ML (machine learning) to identify spam calls and messages more effectively. Also, Truecaller aims to build an alternative identity around phone numbers by understanding alternative data. For example, this could be a sign saying "90% of users pick up this call" when the user receives a call.

Truecaller will work to deepen integration with external partners and enterprises, partly through expansion of SDK partnerships with developers worldwide.

Finally, Truecaller will expand its product offering for TfB with more use cases. The expanded product offering for enterprises includes: 1) video on incoming calls instead of a profile image; 2) information about why the company is calling, called "Call Reason"; and 3) built-in call feedback for companies to improve customer satisfaction, for example.

Complimentary M&A for product features or regional expansion

A part of Truecaller's investments in the core product is through M&A. We believe this mainly to consist of smaller acquisitions that extends the current product offering. One such acquisition was CallHero, which was announced in January 2022. CallHero has developed a technical solution for both Android and iPhone, which helps users verify and answer calls with the help of a digital assistant.

Except for adding product features, we think Truecaller will acquire companies in new markets in order to obtain regional datasets to improve the caller-identification rate of that market.

Creating an all-in-one app for reliable communication

Truecaller wants to become more than just an app that quickly detects spam or fraud; it aims to become a more holistic communication platform. Truecaller is taking a three-step approach to achieve this:

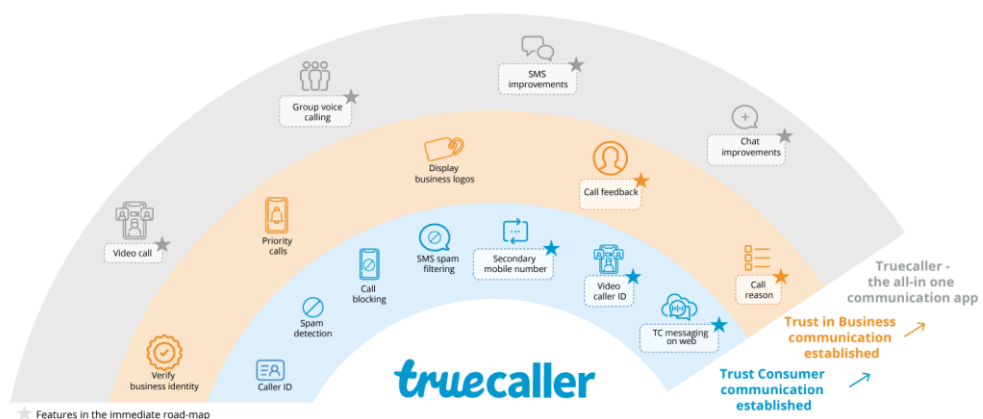
1. Establishing trust in consumer communication
2. Establishing trust in business communication
3. Becoming an all-in-one communication app

In our view, Truecaller is today very much still at the first stage of this, albeit very successful. This is what the company was built for and includes the core functionalities of caller ID, spam detection, call blocking, and SMS spam filtering. A channel check with a few Indian users of the app confirmed they only used Truecaller for the above use cases rather than as their primary communication platform.

The second step is about how businesses can break through the clutter of spam calls and texts to stand out and be relevant for their customers. This will translate into increased trust in these verified businesses, ultimately resulting in higher pick-up rates among consumers. This is what TFB aims to achieve by verifying a business's identity, for example, so that it will not be treated as spam, as well creating trust by displaying the company logo and adding the feature of "priority calls." While still at a very early stage in the journey, this fills an actual need in the market, in our view.

While the first two steps make Truecaller relevant for both consumers and businesses, they still do not create much engagement to tempt users to use the app for more than just brief moments. To achieve stronger engagement with more and longer interactions, Truecaller will need to create a more holistic communication platform, which is what this category aims to accomplish. The product features included here are on the immediate roadmap and include video calls, group voice calls, SMS improvements, and chat improvements. We believe the aim is to get the users to use Truecaller for the functionality they currently access via WhatsApp, Facebook Messenger, or their phones' default apps for calling or texting.

Continue creating the all-in-one communication app



Source: Truecaller

The vision of becoming an all-in-one platform and effectively competing against giants such as Meta, Alphabet, and Apple is a grand one but probably challenging to accomplish. However, Truecaller says it does not intend to compete directly with these platforms.

Whether or not this attempt implies becoming a direct competitor to the giants or not, we don't know. However, we note the upside is considerable and includes far more user

engagement, which can then be monetized through an increased ad load. Also, if the execution proves successful, we believe Truecaller will be an even more interesting acquisition proposition for these same giants.

Strategic Pillar II: Investing More in Strong Revenue Models

This part of the strategy is where Truecaller lays out its monetization plan. It is thus where the growing user base is translated into revenues and profits. It talks not only about monetization, but also how this will be done, which affects the future gross margin.

Investments in the ad tech platform

Investing in the ad tech platform includes a wide variety of strategic actions to raise ARPU and gross margins. This area includes increasing ad load, improving CPM, improving render rates, expanding the programmatic partner base, and investing in direct sales.

Increasing ad load – the main lever for driving ARPU growth

Ad load means the number of ads a user is exposed to, and it can be described in terms of ads per interaction or per DAU (daily active user). Increasing ad load has been the main lever for driving ARPU (average revenue per user) growth since mid-2020. While perhaps the lowest hanging fruit has now been captured, we still see ample room for further improvements.

This should be possible because Truecaller is behind peers when it comes to ad exposure for its users. Before looking at what could be a “normalized” ad load for Truecaller, we will first consider the status of Truecaller and its peers. As of Q1 2022, Truecaller shows 12.1 ad impressions per DAU compared with 15.4 for Snapchat, 19.9 for Instagram, 51.4 for Facebook, and 87.7 for Twitter.

This is not an apples-to-apples comparison, though, and there are several factors that explain why Truecaller should, in fact, have a lower ad load than these peers. The main reason is engagement. While Truecaller has a strong average of 19 interactions per DAU, we need to consider what these interactions look like and what chances there are for it to increase ad exposure in these.

Our experience from both our own use of the app and from asking other users is that each interaction with Truecaller is very brief, often only a few seconds when receiving a call, for instance. So, the total time spent interacting with Truecaller is probably a maximum of a few minutes per day, whereas each interaction with Instagram or Snapchat, for example, involves users typically scrolling the feed for several minutes. The average daily time spent on Instagram in 2021 was 53 minutes, whereas the same figure was 49.5 minutes for Snapchat. This means the ad load per time spent on the app is likely not that low for Truecaller.

Looking at the potential in a scenario where Truecaller succeeds in becoming an all-in-one communication platform, we note the daily time spent on WhatsApp was 28 minutes. Should Truecaller even approach these levels, the potential would indeed be ample.

Improving CPM – making each impression more valuable

CPM stands for cost per mille, or the cost per 1,000 ad impressions. In 2020, CPM for Truecaller was USD 0.15 compared with USD 0.71 for Snapchat (excluding the US and Europe) and USD 0.52 for Twitter (excluding the US).

CPM rate is basically what a company pays to advertise on a given platform, which is dependent on the actual and perceived value received. While the perceived value depends on a wide variety of soft factors, the monetary value of an ad has a few key ingredients. These include:

- **Click rate/click-through rate** – percentage of ad impressions that translates into a user clicking on the ad
- **Conversion rate** – percentage of ad impressions that lead to the user completing the “call to action,” whether this is buying an item or scheduling a business meeting
- **Value of converted user** – can be decided in a variety of ways, depending on the product/service sold but generally implies the contribution profit for a converted user

Click rate and conversion rate depend to a large extent on how relevant the content is for the user, and this is in turn dependent on the level of personalization of the ads. A highly personalized ad increases the likelihood of a user clicking on it. However, conversion rate is also very dependent on the landing page and the offering itself and is thus not as dependent on the advertising platform.

The value of the converted user depends considerably on the product or service sold, with high-value goods naturally being worth more than low-value items. The combination of high click and high conversion rates together with a high-value product or service is worth much. This is why LinkedIn, for example, generally has a very high cost per impression: ads can be directed to very specific roles in specific industries where the users exposed to the ad can make multi-million-dollar decisions.

Truecaller aims to do three key things to improve CPM rates:

- Add high-CPM ad formats, such as larger size ads and video display ads
- Obtain premium users through audience targeting or segmentation
- Expand the user base in markets with medium and high CPM

Improve render rates – supercharged by faster internet

Render rate is the percentage of impressions served out of the total number of ad impressions sold in an ad auction. Sometimes an ad auction is won (through Google Open Bidding, for example), but the ad never makes it to the users’ screens. This means a company has signed up to pay for a certain number of ads impressions but ends up paying for less than this amount.

It may sound as if a company should always aim for a render rate of 100%, but this is not the case. If render rate were to reach 100%, chances are that the ad platform had opportunities where ads could have been delivered to users, but where there was no “ad inventory” left to offer. This implies a poorly optimized *fill* rate.

Move from feature phones with 2G to smartphones with 3G and above

Render rate is also dependent on the loading speed on the app. If ads are loaded quickly, users can be exposed to more ads in a given period of time than if the ads are loaded slowly. Similarly, ad impressions can be missed if latency is high. Thus, render rates should improve as users upgrade from 2G to 3G/4G/5G. The step from 2G internet to 3G is particularly important, given the step-change in internet speed it represents. According to Fierce Wireless, India had more than 350 million 2G users as of October 2021. A large majority of these are people with feature phones, i.e., not smartphones. This enormous shift is taking place in India right now, increasing the TAM for each day that passes.

Product development for reducing latency

In addition to the favorable macro factors of faster internet connections, Truecaller aims to improve render rate through technology optimization and product development to decrease latency.

An important product development in improving render rate is that the app uses AI and predictive analytics to predict a user's next move in the app and load this feature in advance. This means when a user enters that next area in the app, the ad is already loaded. This method was famously used by Spotify to pre-buffer the next song before it had started, thus avoiding any lag between songs.

Possibly the main lever for driving ARPU growth

In 2019, Truecaller had a 30% render rate, and by April 2021 this had improved to 47%. This is an important factor in explaining Truecaller's acceleration in ARPU since 2019. The company's target is to reach a 60% render rate in the coming years. Looking further ahead, Truecaller should be able to far surpass this rate.

According to management, render rate is the most important lever for driving ARPU growth.

Expanding the programmatic partner base – becoming less dependent on Google and Facebook

A substantial majority of Truecaller's ad revenue is sourced via Google Open Bidding and Facebook. By working with other partners (global and regional), demand density can increase and CPMs improve.

However, increasing the share of ad publishers beyond Google and Facebook is not as important as many other initiatives. Truecaller has around five publishers in addition to Facebook and Google. According to management, this is enough to prompt a bidding war that will ensure healthy prices.

Further investments in direct sales

Advertising clients that work directly with Truecaller for customized ads are priced 3-5x the rate of programmatic campaigns. This makes the direct sales channel very interesting, both for increasing CPM and for improving gross margin. The main value proposition to advertisers is to reach an audience of millions of users in short time frames of one to two days, plus the ability to target specific audiences.

Today, Truecaller has a direct advertising sales team in India, and it works with resellers in Egypt and Bangladesh. The company aims to invest more in direct sales.

Strategic Pillar III: Unlocking New Growth Opportunities

This pillar of the strategy is about exploring new business areas and markets where Truecaller has not yet established itself—in other words, ensuring growth beyond the company's current core.

Investments in new opportunities

Truecaller has a proven playbook for establishing itself in new markets and successfully monetizing these. Investing in new opportunities mainly implies using that playbook to enter new markets.

Increase penetration in high and medium CPM markets

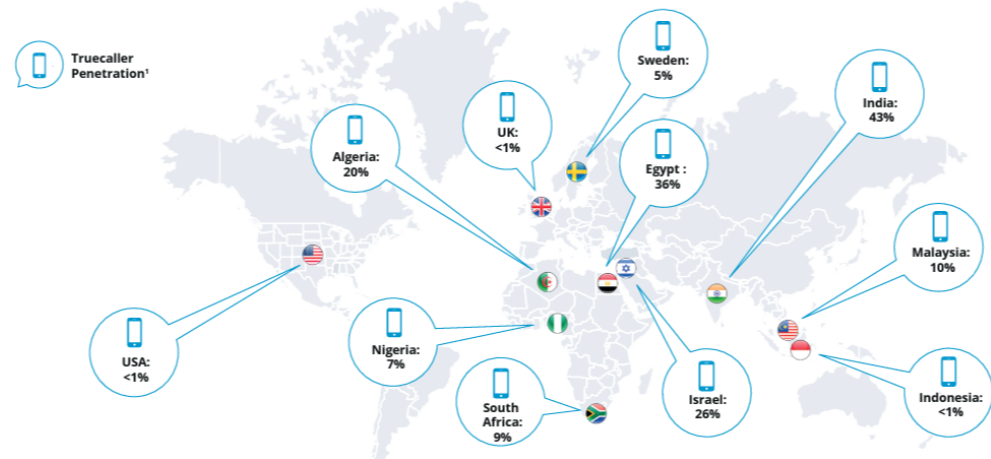
CPM rate is basically an indexed cost of investing in a certain channel in a certain market. Thus, CPM rates are dependent on the expected value that can be received from that channel in that specific market. The expected value is the product of click rate, conversion rate after having clicked, and the value of a converted user.

The value of a converted user is, among other things, dependent on the purchasing power of the demographic group of that channel. The higher the purchasing power of that demographic group, the higher the CPM rate. For example, the CPM rate in India is less than SEK 1.5, whereas it is above SEK 5 in the US.

Due to this, Truecaller aims to increase its penetration in high and medium CPM markets: those with higher purchasing power than mainly India. The map below shows Truecaller's penetration in each market, calculated as Truecaller MAUs/number of smartphone users in that country.

Enormous Opportunity Remains for Customer Growth Across the Globe

Selected Markets



Source: Truecaller

Truecaller will focus its penetration strategy on markets such as Indonesia, Malaysia, South Africa, and various Latin American and Middle Eastern countries, in the SEK 2-5 range. It will also target growth in the highest CPM rate markets, those surpassing SEK 5, such as the US.

The playbook for growing in new markets

Truecaller will focus its resources on core markets with an immediate or near-term impact on revenues, targeting investments in UA and product development toward these markets.

For markets that have not yet reached the point where revenue impact is immediate, focus will instead be on investments in branding and marketing. When the user base becomes large enough, the dataset for that market becomes good enough to ensure a good caller-identification rate. When this point is reached, the market is considered attractive enough for deployment of UA and product development.

Truecaller's three-step approach for entering new markets is as follows:

1. User growth and market penetration
 - a. Improve data accuracy in caller ID and spam detection
 - b. Localized product features and language
 - c. PR and branding initiatives
 - d. Partner with local app stores, OEMs, and carriers for distribution and awareness
2. Monetize through ads and subscriptions
 - a. Increasing ad load (and CPM rates)
 - b. Increasing share of premium subscribers
3. Establish brand partnership with well-known companies/brands

- a. As has previously been done successfully with Amazon, Uber, Flipcart, Zoomcar, Airtel, and Myntra

After this, TfB can be introduced into that market.

Scale TfB

While TfB is still an immature product, it has gained immediate market traction on the Indian market. To retain the strong growth rate, Truecaller will focus on three factors: enhancing TfB's offering; developing the self-serve portal; and scaling the product to new markets.

Enhance product offering to increase pick-up rates

The core of TfB's value proposition is to increase pick-up rates as consumers' trust increases with the "verified business" stamp from TfB. To further strengthen the value proposition, Truecaller aims to add the following features:

- Branded video caller ID – like a profile picture but moving and with sound. This can also be used as a way to communicate a certain message about a product or service.
- Call feedback – a built-in oral questionnaire to the consumer directly after the call. The purpose is to ask the consumer about their experience with the company, so the company can improve its customer service, for example.
- Call reason – a way for the business to portray in the display "why" it is calling. For example, the consumer is more likely to answer its bank if they are waiting for a certain errand to be completed.
- Priority messages – time-sensitive messages, such as a delivery firm is close to the customer's address
- Enriched profile with more information about the business

Develop the self-serve portal

Truecaller has developed a self-serve portal that is today available for customers, but it plans to further expand these features. By developing the self-serve portal further, Truecaller aims to accomplish the following objectives:

- Significantly decrease onboarding time
- Allow businesses to upgrade their usage plan in their preferred way
- Automate reporting and billing
- Provide an analytics solution

Enter new markets

The company aims to scale TfB to new markets by leveraging resellers and SDK partners to generate leads, as well as by deploying its own teams on the local markets.

Partnerships with Apple and Alphabet

Today, 96% of Truecaller users are on Android and the remaining 4% are on Apple/iPhone.

Alphabet – long-lasting and strong relationship

Truecaller has a good and strong collaboration with Alphabet, and both parties consider the collaboration to be mutually beneficial. As such, Truecaller knows how the next versions of Android will work and is thus deeply integrated with Alphabet.

Apple – more of a black box

Apple is different and is more of a black box. While Truecaller ensures it does not breach any Apple rules or standards, this is a much more insecure relationship than that with Google.

The main factor hindering stronger penetration among iPhone users is the limitations on the actual call event (providing real time caller ID) and being able to access call history. However, the acquisition of CallHero is meant to bypass this hazard.

In addition, the UX on iPhones is not at all on a par with that of Android phones, adding another focus area requiring improvement.

Market Overview

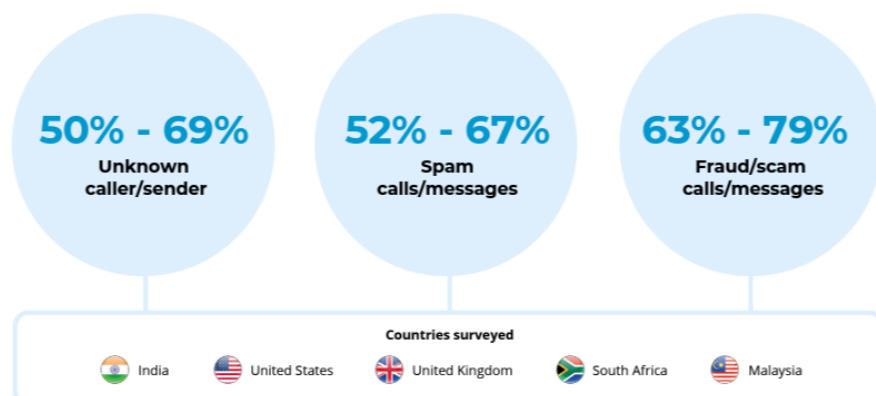
Understanding Truecaller's Market and the Issues it Addresses

Excessive spam and scam communication increases mistrust in society. Truecaller helped its users to block and identify 37.8 billion spam calls in 2021, a figure that has increased steadily over the past couple of years. Almost 60 million Americans lost money to phone scams in the 12-month period ending June 2021, according to a report from Truecaller. This corresponds to 23% of the US adult population. The total monetary losses amounted to USD 29.8bn, which translates to an average loss of USD 502 per victim. All these metrics have risen in the past couple of years, meaning a growing share of the US population is losing money to scam calls, and the financial loss per victim is increasing.

Increasingly, people are concerned and are choosing to not answer a call when an unknown number appears on the caller ID display. In fact, 85% of Americans attest to only answering a call when they recognize the number, according to company data. Moreover, the Federal Communications Commission (FCC) in the US recommends consumers not to answer calls from numbers they do not recognize. This represents, in our opinion, a short-sighted solution to a structural problem, leading to adverse effects for legitimate business professionals, salespeople, and so on. Essentially, there is a major demand for caller ID features and the value these products bring to consumers and businesses.

Spam, Scams and Unknown Sources Are of Huge Concern to Users

% of Users Concerned About Key Issues



Source: Truecaller

Why is there so much spam communication?

Technological advances enable mass communication

Some of the most striking facts about the enormous volumes of spam/scam communication include:

- One person in India made 202 million spam calls in 2021, which equates to 27,000 spam calls an hour that year (source: Truecaller)
- Brazil was the world's most spammed country in 2021 (for the fourth consecutive year) – In Brazil, Truecaller users received, on average, 32.9 spam calls each month (source: Truecaller)
- Americans were expected to receive 51 billion robocalls in 2021 (source: YouMail)

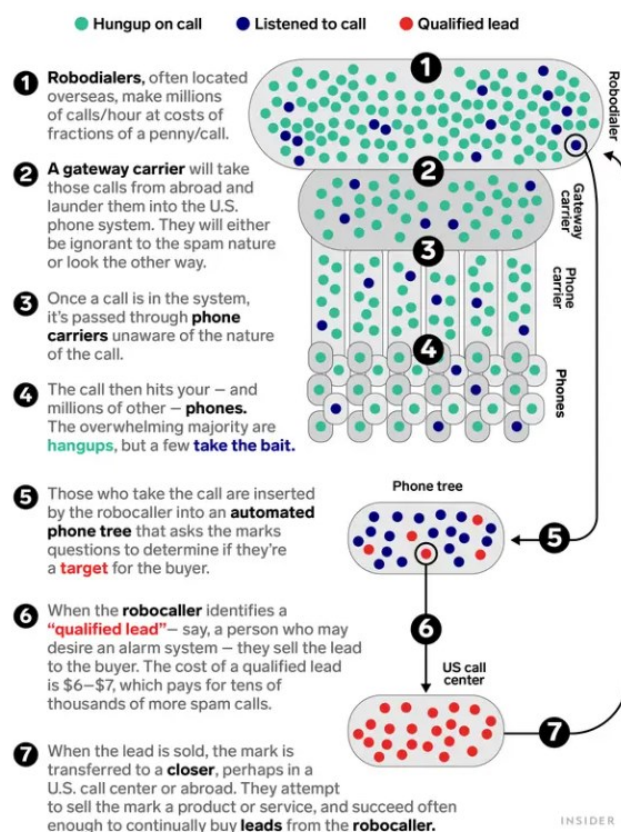
- About 46% of Americans receive spam calls on their cell phones every day, and another 24% receive spam calls more than once a week (source: Insider)

Excessive volumes of spam communication are made possible by advancements in telecommunications and IT, which have led to reduced telecom and computing infrastructure costs. Moreover, bot-assisted calling technology has improved considerably, which has led to further cost decreases. Apart from some programming, robocalls require little to no human involvement. These factors enable spammers to build highly scalable and automated communication software at a relatively low cost. These operations only require one person (or a couple at most) in charge, meaning that many people have the conditions necessary to pursue this.

Spam communication economics: Very profitable

Spam communication is very profitable, and the risks of getting caught are fairly slim, which makes it an attractive business proposition. The diagram below illustrates the economic dimension that enables billions of robocalls (i.e., calls that deliver pre-recorded messages through autodialing software) each month from untraceable origins.

The Spam Machine: how a spam robocaller works



Source: Sky Gould / Insider

Not all robocalls are illegal, however. In the US, a robocall that tries to sell a consumer something is illegal unless the company behind the call has written permission from the recipient to call in that way (source: the Federal Trade Commission). Calls from political candidates running for office and charities asking for donations are exempt from this rule. Robocalls look very different; some may represent legitimate businesses trying to sell something, while others pretend to represent government agencies. However, the business model is typically the same:

- A company wants to find buyers for its products, so it contracts a robocaller, often located abroad. The company is willing to pay USD 6-7 for each qualified lead.
- The robocaller starts to make millions of calls with prerecorded messages at almost no cost. A court case from 2015 (Message Communications Inc) exposes that the cost for making 125,000 minutes of robocalls was USD 875 (source: Insider). If recipients, on average, listen to the call for three seconds, USD 875 translates into 2.5 million robocalls. This means USD 0.01 gets the robocaller 28 spam calls.
- Response rates vary and are difficult to measure. However, an article from Insider states that it might be around 0.01-0.1% (one out of 10,000 to one out of a 1,000 calls).
- If the response rate is 0.01%, 250 recipients (out of the 2.5 million robocalls made) could turn into qualified leads.
- 250 qualified leads equate to USD 1,750 (assuming the company pays USD 7 for each qualified lead) in revenues for the robocaller. This means that the profit is USD 875.
- All of this could be done in an hour (depending on the software quality).

Scammers prey on current anxieties—difficult not to listen

Scammers are typically quick to adapt and can take advantage of current circumstances that may inflict distress on ordinary people. About 59% of Americans received scam communication concerning COVID-19 in a 12 month period ending June 2021 (source: Truecaller). These scammers claimed to sell life-saving drugs and oxygen cylinders, for example. Many Americans went into debt to manage through the pandemic, so a meaningful number of scams involve preying on those anxieties, claiming to be a financial institution. In Latin American countries affected by gang violence, a common strategy involves claiming to have kidnapped a family member and demanding an immediate (untraceable) money transfer for the victim's release.

Caller ID spoofing—tricking people into taking the call

Multiple sources attribute excessive spam calls to fundamental problems with caller ID, i.e., a feature that identifies an incoming caller by name and phone number. For example, scammers are today able to falsify information transmitted to a recipient's caller ID display, disguising their real identity. This is referred to as caller ID spoofing. Scammers typically mask the incoming number so that it appears to originate from the same area code: neighbor spoofing. Other strategies involving masking the number to trick the recipient into believing a legitimate business or federal agency is behind the call. The FCC in the US is cracking down on spoofing through new telecom standards, which we dig deeper into in the next section.

US regulators

STIR/SHAKEN: Good news for Truecaller in the US

The FCC in the US requires that all major voice providers/carriers (e.g., AT&T, Verizon and T-Mobile) adopt STIR/SHAKEN technology in an effort to combat spoofing and illegal robocalling. STIR/SHAKEN stands for Secure Telephone Identity Revisited (STIR) and Signature-based Handling of Asserted information using toKENs (SHAKEN). It is essentially a call authentication protocol that requires voice providers to verify where calls originate from. The FCC has given large providers until June 30, 2021, and small providers (fewer than 100,000 subscribers) until June 30, 2023 to adopt the technology. However, initial evidence pointed to large volumes of robocalls originating through a group of small providers once the major carriers adopted STIR/SHAKEN. The deadline for small providers has since been brought forward to June 30, 2022.

Industry experts believe that STIR/SHAKEN will be efficient in decreasing spoofing/neighbor spoofing in the US (source: CNET). We think this is a good thing, considering that spoofing is actually an issue for Truecaller. The company's value proposition is built on having a large up-to-date database of verified phone numbers and identities. Caller ID spoofing is problematic since users are not able to identify the caller.

We believe STIR/SHAKEN implies an improved database for Truecaller in the US and therefore better caller-identification rates. Another question is whether STIR/SHAKEN competes head-to-head with Truecaller. We do not believe this is the case, as carriers, through STIR/SHAKEN, tell end-users whether or not to trust the call. STIR/SHAKEN technology does not tell users about the originator's identity, calling purpose, and so on.

Fighting scammers is like a game of Whack-a-Mole

STIR/SHAKEN will likely close one robocall avenue, according to multiple sources, but scammers are quick to adapt and will find new channels in a short time. A new strategy for scammers is to purchase lists of real phone numbers with which to trick spam-blocking software into letting the calls through. Buying lists of phone numbers from third-party data providers is legal, which creates additional challenges for the US regulating bodies. Essentially, STIR/SHAKEN prevents robocalls from faked numbers, but not from authentic numbers.

There is proposed legislation in the US to impose harsher penalties on scammers and illegal robocallers, such as the Robocall Trace Back Enhancement Act. Another strategy is to apply many of the same rules and technologies used to combat robocalls to text messaging.

One challenge remains, though: this is a global issue. An advisor to Truecaller stated that to really do something to end spam communication requires multilateral agreements and co-operation between global leaders, international regulators, and carriers.

Indian regulators

The threat of GDPR-like regulation in India is likely overrated...

The overarching rationale behind a new data protection framework in India is data localization (storage of data within India) and regulating social media platforms. As Truecaller already stores Indian user data in India and is not deemed a social media platform, this should not be an issue for the company. In contrast to GDPR, the Indian regulator has been clearer that any imposed regulation should continue to encourage innovation and not dampen the growth of the digital economy in India. The obstacles encountered by EU companies in connection with the introduction of GDPR are unlikely to happen in India.

Moreover, the Personal Data Protection Act 2019 (India's version of GDPR) contains specific exemptions from consent-based processing, e.g., to prevent fraud / illegal activities or search engine operations. This fits well with Truecaller's services and should not have a significant impact on the company.

Also, Truecaller is constantly working to future-proof its business in all types of all potential scenarios, how unlikely they could be. This means the company prepares for various scenarios concentrating on what would happen to the business and what its response would be. This sense of urgency is something we think highly of.

...and the main targets are typically social media platforms – not Truecaller

The Indian government (headed since 2014 by PM Narendra Modi) has cracked down on certain tech companies in recent years, largely affecting Chinese companies. Since June 2020, the Indian government has banned more than 220 Chinese apps belonging to companies such as Tencent (WeChat), Alibaba, NetEase, and ByteDance (TikTok). The official reasons for these bans have included compliance and privacy concerns that sensitive data of Indians are transferred to China, but this is also likely due to the worsening ties between India

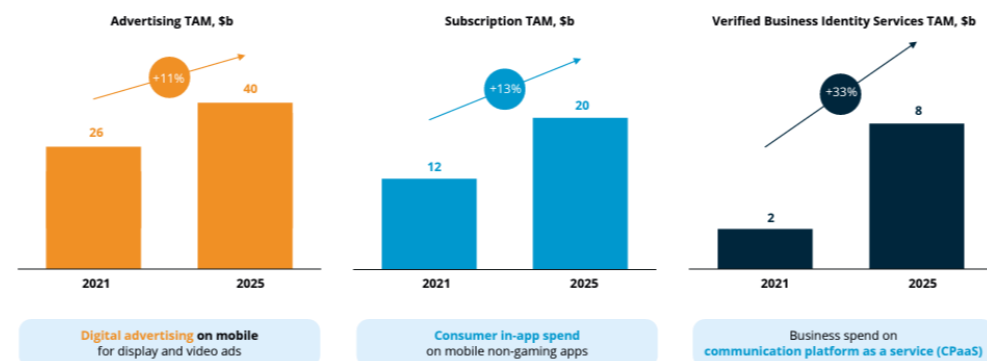
and China after flare-ups along their mutual border, among other things. Truecaller stores all Indian user data in India and is not impacted by this ban.

Moreover, the Indian government clashed with Big Tech (Meta/WhatsApp, Twitter and Google) in 2021 when it presented regulations that would require social media and communication platforms to identify and trace the first origination of any message – this is not possible with end-to-end encryption used by WhatsApp and others. WhatsApp contested this and sued the government on May 25, 2021, claiming that this breaks end-to-end encryption and undermines people's right to privacy. We understand the rules have taken effect but that most tech giants continue to operate as before. Truecaller does not rely on end-to-end encryption technology and is not in the spotlight for such regulation.

Addressable Market

Truecaller addresses the global calling, messaging, caller ID, and spam-blocking market, which constitutes a pocket of the broader communication applications market. According to a third-party report presented by Truecaller, it was worth USD 40bn in 2021 and is forecast to rise to USD 70bn by 2025 in the company's core markets (defined as India, Egypt, Nigeria, Algeria, South Africa, Israel, the US, the UK, Malaysia, Indonesia, Sweden, Morocco, Kenya, Colombia, Bangladesh, Iraq, and Jordan). Truecaller's overall TAM is underpinned by three market segments: digital advertising on mobile; consumer in-app spending on mobile (non-gaming) apps; and verified business identity services. The first represents the largest and most mature segment, while the third is the fastest growing.

Truecaller Operates in a \$40bn (~SEK 340bn) Addressable Market that will be ~\$70bn (~SEK 600bn) in 2025



Source: Truecaller

Digital advertising on mobile for display and video ads

Truecaller estimates its advertising TAM (in core markets) was worth USD 26bn in 2021 and will rise to USD 40bn by 2025, which equates to an 11% CAGR. Moreover, it estimates its advertising TAM in India was at USD 1.1bn in 2021, rising to USD 3.3bn by 2025, which equates to a 32% CAGR. Redeye estimates Truecaller's India-generated advertising revenues at around SEK 661m (~USD 68m) in 2021. India-generated revenues amounted to SEK 787m and 84% of total revenues were derived from advertising. This means Truecaller's market share of the Indian advertising TAM was about six percent in 2021.

We see this confirming Truecaller's leading position in India and the growth opportunities ahead, should the company execute on its strategy and increase its market share further. For instance, should the assumptions above hold, an eight percent market share of the Indian advertising TAM equates to SEK 2,576m in revenues by 2025.

The main growth drivers for digital advertising include:

1. An increasing user base thanks to structural macro trends such as a growing population, smartphone penetration, and improved connectivity
2. The shift from physical to online advertising
3. CPM growth and increased ad inventory

Consumer subscriptions/in-app spending on mobile (non-gaming) apps

Truecaller estimates its subscription TAM (in core markets) was at USD 12bn in 2021 and will increase to USD 20bn by 2025, which equates to a 13% CAGR. Moreover, it estimates its subscription TAM in India at USD 0.4bn in 2021 and will rise to USD 1.1bn by 2025, which equates to a 29% CAGR. Redeye estimates Truecaller's India-generated subscription revenues to be around SEK 97m (some USD 10m) for 2021. India-generated revenues amounted to SEK 787m and 12% of total revenues were derived from subscriptions. This means Truecaller's market share of the Indian subscription TAM was about 2.5% in 2021.

The subscription TAM consists, in our opinion, of consumers who own smartphones in core markets, need a caller ID application (or related features), and are willing to pay for subscriptions. The market growth will, again, be a formula of secular macro trends (such as population growth, extended life expectancy, and improved connectivity), resulting in a growing user base.

Another important driver is increased awareness of the risks associated with digital spam/scam communication, predominantly financial loss. Consumers understand, to a greater extent, the value that caller ID features bring. Finally, general growth in the global application economy together with rising GDP per capita in Truecaller's core markets should lead to increased consumer willingness to pay for mobile subscriptions.

Business spending on communications platforms as a service (CPaaS)

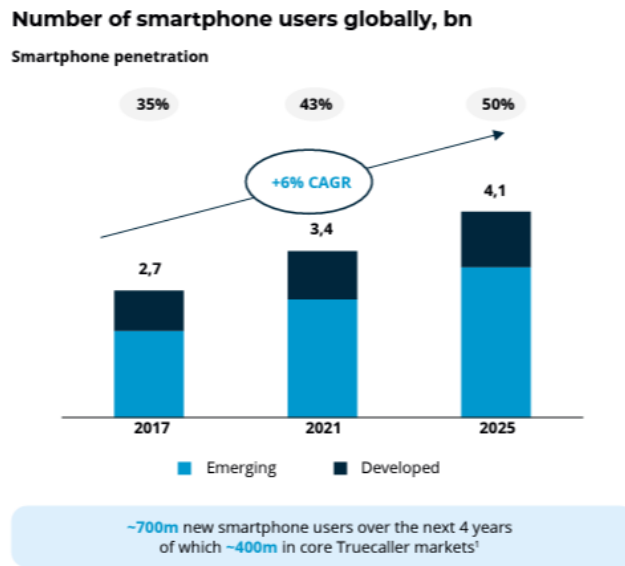
Truecaller entered the business verification market when it launched Truecaller for Business (TfB) in Q4 2020. It estimates its TAM (in core markets) was USD 2.4bn in 2021, rising to USD 7.5bn by 2025, which equates to a 33% CAGR. For India, the TAM stood at USD 0.5bn in 2021 and will grow to USD 2.3bn by 2025, which equates to a 47% CAGR. TfB generated around SEK 41m (some USD 4m) in revenues in 2021, accounting for about four percent of total revenues. The company has favorable conditions, in our opinion, for increasing its market share (from less than one percent in 2021), not least thanks to its dominant consumer-facing app in core markets—businesses must essentially establish a presence where their customers are in order to remain competitive.

According to the company, the main trends driving the business verification TAM include increasingly lower prices for texts/calls, improved business efficiency thanks to, e.g., a higher pick-up/response ratio, and network effects. There is a negative perceived value of not being verified, and this increases as more users join platforms like Truecaller.

Smartphone user growth is set to play into Truecaller's hands

According to a report by the United Nations, the number of smartphone users is expected to increase by more than 700 million in the coming four years (until 2025), and the company believes that 400 million of those will stem from its core markets. In general, we believe it safe to assume that Truecaller will capture a meaningful share of new smartphone users thanks to its (already) large size and leading position in core markets.

The most important factor resulting in smartphone user growth is the penetration of smartphones, thanks to rising incomes, decreasing smartphone costs, and decreasing data costs.



Source: Truecaller

Competition

Truecaller operates in a fragmented market in which many companies provide basic caller ID and spam-blocking features. There are four main groups of competitors: smartphone OEMs; telecom operators; smartphone OS providers; and third-party apps. However, when it comes to providing these features as a core standalone offering, we understand the competition diminishes significantly, owing to high barriers to compete.

An incumbent's value proposition and competitive edge is, to a great extent, determined by the size and quality of its database. Large datasets with the latest information translate into high caller-identification rates and good user experience. We believe Truecaller's competitive advantage is most significant in its core markets, where it has a sizable user base and satisfactory caller-identification rates. Its strongest advantage should thus be in India, where the Truecaller app is installed in more than 50% of all smartphones. We believe it is almost impossible for smaller incumbents to threaten Truecaller in this market, since their value proposition is much inferior, while Truecaller's continues to improve thanks to the reinforcing network effects.

Truecaller: The leading global caller ID app and why it is so big in India

Truecaller is the leading global leading caller ID app, as seen in the table below, with an outstanding presence in India and several MENA countries (Middle East and North Africa) and in Southeast Asia. It regards these countries as its core market. A vast majority of the company's more than 310 million MAUs reside in India, which begs the question of how this came to be so.

Our understanding is that Truecaller had around eight million users as of 2012 (it was founded in 2009), many of them in India and the Middle East thanks to word of mouth. The company had about 15 employees at that time, none of whom were based in India. It then made the decision to hire its first Indian employee, started interacting with Indian investors, and prioritized growth in India.

| | India | Egypt | Nigeria | Algeria | South Africa | Israel | US | Malaysia | Indonesia | Global |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Truecaller Market position¹ | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 1 |
| Primary app | Eyecon | Eyecon | CallApp | Eyecon | CallApp | CallApp | RoboKiller | CallApp | CallApp | CallApp |
| OS² | Google phone | Google phone | Google phone | Google phone | Google phone | Google phone | Google phone | Google phone | Google phone | Google phone |
| OSM^{3,4} | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS | 100% OSM MS |
| Telecom | Verizon | Verizon | Verizon | Verizon | Verizon | Verizon | Verizon | Verizon | Verizon | Verizon |

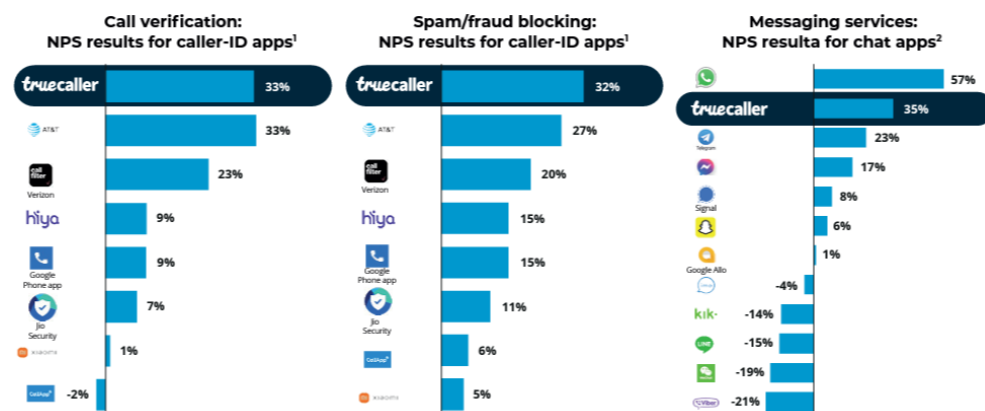
Source: Truecaller

Truecaller is protected in core markets but faces direct competition in new markets

While Truecaller may be protected in its core markets, we believe the competitive situation differs considerably in new markets. The winning solution in a new market is likely that which builds a database to a certain (critical) threshold the fastest. Essentially, we expect to see a land-grab competition in new and growing markets/regions, such as the US and Latin America.

One argument that supports Truecaller in new markets is its previous success. Truecaller has a profitable business model, has expanded efficiently into many regions, and knows how to invest in marketing campaigns and user acquisitions.

Another argument in Truecaller's favor is that many of its competitors have a limited ability to build large datasets in concentrated geographical regions. There are two main reasons for this. First, these companies are limited by their customers—a telecom operator or smartphone OEM can only gather data on its end-customers, restricting its potential to its market share in a region. Second, caller ID features tend not to represent core competitors' core operations, and their ability to monetize this area is fairly restricted. Finally, Truecaller receives top scores in NPS surveys, as seen below, which confirms its strong value proposition.



Source: Truecaller

Smartphone OEMs

Some smartphone OEMs have chosen to offer caller ID features to strengthen their overall value proposition to customers and to differentiate themselves from other OEMs. A good example is Smart Call powered by Hiya. Samsung has agreed to integrate Hiya's caller ID capabilities into its native phone app in certain models, including Galaxy.

However, not all smartphone OEMs are competitors. In fact, partnerships between this segment and Truecaller represent a strategic growth opportunity, and in particular a good way of expanding into new markets. This was made clear in the Q1 2022 report, in which Truecaller announced it had entered into agreements with several world-leading Android phone OEMs to preinstall its app on smartphones in key selected markets. These include India, Indonesia, Malaysia, and Latin America.

Hiya: A direct competitor with meaningful reach

Hiya entered the caller ID market in 2016 when it was spun off by Whitepages, a US-focused people search database with comprehensive contact information for more than 275 million Americans (similar to hitta.se and Eniro in Sweden). Alex Algard, a Sweden-born tech entrepreneur founded Whitepages in 1996 and led the company as CEO until 2016, when he founded Hiya, of which he currently is CEO. Hiya is VC-backed (Balderton and Lumia Capital) and headquartered in Seattle.

Our understanding is that Hiya is a direct competitor not only to the Truecaller consumer-facing app, but also TFB. Hiya's value proposition, with its core focus on caller ID and spam blocking features, resembles some aspects of Truecaller. Hiya provides three products:

Hiya Connect enables businesses to verify their profiles and create a branded identity that is visible when communicating with AT&T customers, Samsung Smart Call enabled devices, Hiya app users, and Mr Number app users. Hiya Connect is the counterpart of TFB.

Hiya Protect helps carriers, smartphone OEMs, and app developers protect end-users from spam and fraud calls. Customers in this segment include AT&T, Samsung, Google, and Telenor. These customers integrate Hiya's technology into certain versions of their smartphones, dialers, and other software. Hiya claims to have a network of more than 200 million MAUs (predominantly via customers in this segment) in over 40 countries. Our understanding is that users report spam and fraud calls in real time, which keeps the database updated.

The **Hiya app** is available on Android and iOS and targets end-customers who do not use carriers/smartphones made and run by its B2B customers. The Hiya app has more than five million users, according to its website. The app receives positive reviews from both Android and iOS users:

- Google Play: 4.2/5.0 based on 250,000 reviews
- Apple App Store: 4.5/5.0 based on 220,000 reviews

Different go-to-market strategies explain customer engagement: Advantage Truecaller

Hiya and Truecaller appear to have similar value propositions, and both companies reach wide audiences. However, the main difference lies in their go-to-market strategies. Truecaller has built a network of more than 310 million MAUs through direct consumer downloads. By contrast, Hiya opted for a partner strategy, and a vast majority of its 200 million MAUs stem from its B2B customers, primarily Samsung and AT&T.

Both companies rely on programmatic software and manual user annotations to update their databases with the latest information. Having an opinion regarding the software is a tall order for us, but we think Truecaller could have an advantage in terms of user engagement and manual annotations. Almost all of Truecaller's users have made an active choice to download the app, which is not the case for Hiya. This is best reflected in user reviews: Hiya has received around 500,000 combined (Google Play and App Store) reviews, while Truecaller has received almost 18 million.

AT&T partnership could mean the first-mover advantage in the US

The US represents a high CPM market and an attractive growth opportunity for Truecaller. One threat to Truecaller, in our opinion, is that Hiya has a strong position in the US, largely thanks to its partnership with AT&T. Hiya's caller ID features are integrated with AT&T, meaning it receives data from its subscribers. Multiple sources point to AT&T having a 25-30% market share in the US. This means Hiya receives vast amounts of data concentrated on the US, which could strengthen its value proposition. However, we understand that Hiya doesn't own the UX or UI, meaning that this partnership has high limitations.

Samsung partnership has neutral implications

A large group of Hiya's 200 million MAUs stem from Samsung, where its native phone app in certain models (such as the Galaxy) has received Smart Call functionality. Samsung phones are sold all over the world, which means the caller ID data that Hiya gathers is not concentrated in a specific region. This partnership will likely see new Hiya users in countries across the world, but we do not think the data will improve its value proposition and advantage over Truecaller meaningfully.

Telecom operators

A couple of telecom operators, including Jio and Airtel (both based in India), have launched their own security apps with integrated caller ID features. Our belief is that these features are fairly simple, typically only protecting against the most obvious spam calls. Users do not receive any information concerning the call-purpose, for instance. A challenge for telecom operators is that they are limited to their direct customers in the data-gathering process, which means less accurate data and lower identification rates. This is very much the case in India, where three operators together have a market share of more than 20%.

Both these companies' security capabilities are powered by Norton, one of the world's largest IT security providers. The caller ID features do not play a major role, and the companies' opportunities to monetize this are fairly small. We thus do not see this as posing a real threat to Truecaller. Another dimension is that India, and developing countries in general, adopt prepaid SIM cards to a very high extent. More than 95% of all SIM cards are prepaid, making it harder for telecom operators to know the identity behind a certain number.

Smartphone OS providers***Phone by Google***

Phone by Google is Google's own attempt at a spam-blocking communication app. It was launched in 2015 and is a pre-installed app on all Android phones except for Samsung.

There are several things that lead us to believe this is not a real threat to Truecaller.

First, its caller identification rate is much lower than for Truecaller, likely around 30%. Considering that an identification rate below 40% equals a "poor" experience, we believe this makes the service unable to compete for the same main value propositions as Truecaller has.

Second, Google mainly receives its data from Google Maps, which generally only covers around 10% of the information needed to identify users. This again speaks of the moats of data that Truecaller has around its business model.

Third, the app has a 4.3/5.0 rating on Google Play, versus 4.5/5.0 for Truecaller (and more than double the number of reviews). This is not a substantial difference, but our impression is that users of Phone by Google frequently report various bugs and the poor accuracy of the caller identification.

Finally, if Google would have seen this as a focus area, it would have deployed the efforts to win market dominance a long time ago.

Third-party apps

WhatsApp Business app: An alternative to Truecaller for Business

WhatsApp Business app was launched in 2018 in selected markets (including the US, Mexico, and Indonesia) and has since been rolled out worldwide. The app was initially meant to help small businesses to improve communication with their customers. However, we understand WhatsApp Business app is appreciated by large companies too; reference customers include booking.com, Uber, Wish, and MakeMyTrip. Essentially, the app enables businesses to create business profiles and gain access to messaging tools such as automated replies and greeting messages. It has a method for verifying business accounts (which receive a green checkmark) to ensure end-customers know they are talking to a legitimate business.

Before launching WhatsApp Business App, many small businesses relied on the standard consumer-facing app to communicate with customers. In fact, more than 80% of small businesses in India and Brazil said that WhatsApp helped them communicate and grow their business (source: Morning Consult study, 2018).

In an article from October 2021 (Economic Times India), the head of WhatsApp India stated that 400 million users rely on the consumer-facing app, and that "hundreds of businesses, government institutions and entrepreneurs are launching services on the WhatsApp Business app each month".

What does this mean for Tfb? Our belief is that WhatsApp Business competes to some extent with Tfb as it provides verification features. However, since the adoption of the consumer-facing apps of Truecaller and WhatsApp are so widespread in India, businesses will likely set up profiles on both platforms. This could also be the case in other core markets where Truecaller has a meaningful presence. However, the challenges posed by WhatsApp Business App are likely greater for Truecaller in new and developing markets.

Facebook entered the caller ID market very briefly

Facebook launched "Hello" in 2015, an Android-only dialer app, in an effort to quickly match incoming and outgoing numbers to Facebook profiles. The caller ID features included automatic call blocking (if it identified a commonly blocked number) and a search engine to easily contact local businesses. Our understanding is that the launch was not successful in terms of downloads and usage, and Facebook shut it down in 2018.

More third-party apps, but none that threaten Truecaller in existing markets

A lot of companies provide caller ID apps with basic spam blocking functionality. These include CallApp, Whoscall, Eyecon, and YouMail. In general, these apps receive between 100,000 to 1,000,000 reviews on Google Play, and the rating is consistently around 4.0/5.0. Truecaller has more than 17,000,000 reviews on Google Play, which suggests its far larger user base. This means Truecaller also has a larger and more updated database of phone numbers and identities, which its community contributes to daily.

Even if some of these competing apps claim to have databases with billions of verified numbers, we have a hard time believing they pose a real threat to Truecaller in existing markets. Common complaints about these third-party apps include receiving too much spam calls (the filter does not appear to work all the time) and in-app bugs, which weigh on the user experience.

CallApp is a caller ID app available on Android that helps users identify telemarketing calls, record calls, blacklist unwanted callers, and so on. It claims to have the ability to identify more than one billion calls at any given time, thanks to integrations with 60+ information sources. It employs an AI hierarchy system that is strengthened by community contributions, adopting an approach similar to Truecaller. The basic app plan is free (ad-supported), but for USD 1.99 per month (subject to localization) users can unlock premium features and avoid ads. CallApp

(the company) is based in Israel and has a 4.2/5.0 rating on Google Play (based on one million reviews).

Whoscall helps users identify unknown calls, block spam calls, and search numbers in its database. The app has been developed by Gogolook, a Taiwan-based company, explaining its traction in South East Asian countries such as Malaysia and Indonesia. It has a 3.5/5.0 rating on Google Play (based on 720,000 reviews), which is somewhat lower than peers. Recurring complaints include receiving too many spam calls and receiving calls from users that have previously been blocked.

Indian government to develop own KYC-based competitor system – threat likely overrated

On May 23rd, 2022, the Telecom Regulatory Authority of India (TRAI) stated that it plans to develop a system to help mobile phone users identify a caller's identity. The project will be pitched as the government's replacement for the Truecaller app.

The mechanism will enable name-appearing on a phone screen, in accordance with KYC (Know Your Customer) done by telecom companies, as per DoT (Department of Telecom) norms.

The solution is indicated to be an "opt-in service", meaning that users will actively need to download the app to use it.

Threat to Truecaller likely overrated – KYC method and project execution will prevent impact

India makes up around 70% of total revenues, making Truecaller vulnerable to "show-stopper events". Together with partner dependency from Android/ Alphabet, interventions and restrictions by the government on Truecaller rank at the top when considering such events.

While the news from May 23rd should be included in the show-stopper category, we think the threat is largely overrated.

KYC method provides false information – correctness in verification will likely be much lower than Truecaller's

The information about who is calling will be retrieved from a database built on KYC registers from telecom operators. KYC routines are performed in the local kiosks or supermarkets that sell SIM cards – a big problem in the hunt for correct information.

As of today, the KYC process for procuring a SIM card in India typically involves collection of a recognized proof-of-identity and proof-of-address (mainly through so called "Aadhaar cards") at the time of issuing the SIM card. More often than not, actual users of the SIM are different from individuals whose documentation is processed for KYC purposes. The reason why is that individuals tend to help their friends and relatives procure SIM cards because of the unavailability of acceptable documentation with the actual user. As a result, the subscriber-on-record may not be a reliable indicator to identify the actual user of the SIM card. This is a well-recognized limitation of the KYC process.

Hence, we believe the caller-identification rate (with correct information) will be considerably lower than the 80%+ of Truecaller.

Project execution of creating the app should not be underestimated

To our understanding, the development of the government app has not yet started, but TRAI is currently investigating what it takes to create a KYC-based caller ID. As such, we are still in the very early innings of this. Add to this that we think this is a multi-year project with the end

result very uncertain. As such, we believe it will take a number of years before a finalized product can be launched.

Many uncertainties remain – in favor of Truecaller

We believe that there are several other uncertainties around the project.

First, presuming it will be an opt-in service, we don't think people would churn from Truecaller and join the new app. Partly, this is because we believe Truecaller will still have a more correct caller identification, as stated in our section about KYC problems. Also, Truecaller has several other functions besides caller identification, which will likely make users stay.

Second, we believe telecom operators will have an important say in this. If they don't consent with the solution, we think TRAI will have a hard time implementing it.

Third, Apple and Alphabet will likely also have an important say in this. We don't think they would permit the government app to be pre-installed on the phones.

The Indian government has previously tried but failed with a similar attempt

The last thing that speaks against a successful launch of this "Truecaller killer" is that TRAI has previously tried – and failed – with a similar project. TRAI has previously tried to curb spam calls via their DND (Do Not Disturb, a register and function to block unwanted commercial calls). However, the project didn't even start due to the dependency on technology of telecom operators in India. Nevertheless, when the project was launched, people immediately started to doubt the mere existence of Truecaller.

Just like that attempt, we believe the doubters of Truecaller will be disproved once again.

SWOT

Strengths

- Extremely strong historical growth and high cash conversion
- Proven scalable playbook for entering new markets
- Owner/operator with proven innovation and execution
- Strong moat through depth of dataset

Weaknesses

- Geographically concentrated revenues – India accounts for ~70%
- Revenues concentrated on one product – Advertising accounts for ~85%
- Dependency on Android
- iOS challenges: Not able to deliver an equally good product vs Android

Opportunities

- New market entries for consumer app
- Increased monetization of users from increased ad load
- Product innovation towards more diversified revenue base
- B2B opportunity: Grabbing pole position in B2C verification through TfB

Threats

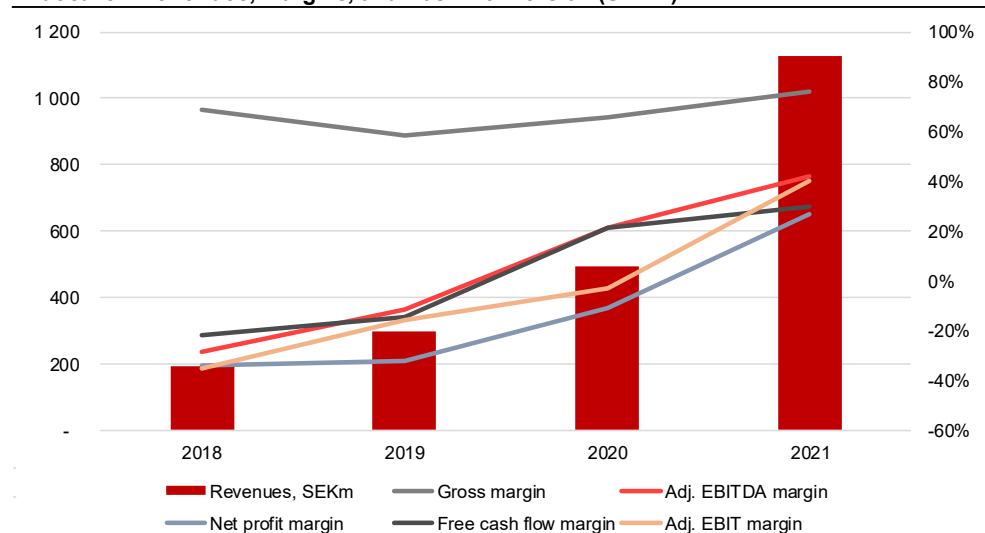
- Regulatory changes limiting Truecaller's ability to gather user data
- Negative set-up changes in the Alphabet and/or Meta ad exchanges
- Potential competition from tech giants, including Apple, Alphabet, and Meta

Financials

Truecaller has been listed for less than a year, meaning the financial data available are quite limited (data from 2018 and onwards). However, the data available are impressive, showing a fast-growing company with scalability and high operating leverage.

See below for an illustration of the financials since 2018.

Truecaller: Revenues, Margins, and Cash Conversion (SEKm)



Source: Company information & Redeye Research

Below is a table with these same metrics:

| | 2018 | 2019 | 2020 | 2021 |
|----------------------------|------|------|------|-------|
| Revenues, SEKm | 190 | 299 | 492 | 1 129 |
| Gross margin | 69% | 59% | 66% | 76% |
| EBITDA margin | -28% | -29% | 18% | 31% |
| Adj. EBITDA margin | -29% | -11% | 21% | 42% |
| EBIT margin | -34% | -33% | -6% | 29% |
| Adj. EBIT margin | -35% | -16% | -3% | 40% |
| Net profit margin | -34% | -32% | -11% | 27% |
| Operating cash flow margin | -21% | -14% | 21% | 34% |
| Free cash flow margin | -22% | -14% | 21% | 30% |

Source: Company Data & Redeye Research

Comments on the Financials

- Three-year sales CAGR of 81%, and accelerated growth since the IPO.
- Adjusted EBITDA adjusts for costs related to:
 - o IPO: SEK 49m in 2021
 - o Backwater Technologies ("Chillr", a fintech company acquired in 2019)
 - 2019: SEK 52m
 - 2020: SEK 17m
 - 2021: SEK 79m

- EBITDA, EBIT, and net profit margin follow each other, except in 2020 when a large depreciation was made.
 - o This relates to a SEK 98m write-down of goodwill from the acquisition of Backwater Technologies/ChillR.
 - o The write-down was made as the company decided not to develop inhouse fintech solutions.
- Free cash flow follows operating cash flow well.
- Free cash flow has generally been stronger than EBITDA. Free cash flow has instead followed adjusted EBITDA, which indicates that adjusted EBITDA is, in fact, a good metric.
- Only after turning to black numbers has free cash flow been lower than Adjusted EBITDA – an effect of the income tax.
- FCF conversion (FCF/EBITDA) was 71% in 2021 – a very good level.
- Operating cash flow has exceeded EBITDA every year since 2018
 - o Employee costs were impacted by a revaluation of employee stock options in 2019 and 2020. This affects EBITDA but not cash flow.

Below is a summary of the most relevant metrics, in our opinion.

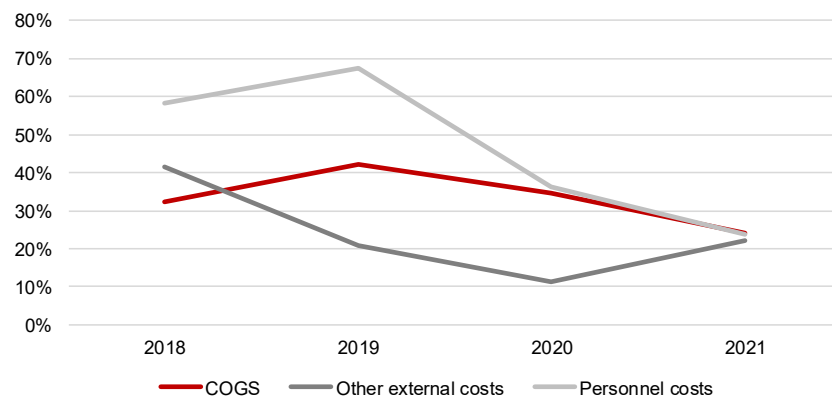
| | 2018-'21 avg. | 2021 |
|-----------------------------------|---------------|------|
| Revenue CAGR | 81% | 130% |
| Gross margin | 67% | 76% |
| EBITDA margin | -2% | 31% |
| Adj. EBITDA margin | 6% | 42% |
| EBIT margin | -11% | 29% |
| Adj. EBIT margin | -3% | 40% |
| Net profit margin | -13% | 27% |
| Operating cash flow margin | 5% | 34% |
| Free cash flow margin | 4% | 30% |
| FCF conversion | N/A | 98% |
| Adj. FCF conversion | N/A | 71% |

Source: Redeye Research

Scalability and Operating Leverage

Truecaller has a scalable business model with high operating leverage. This is important when assessing short- and long-term profit margins.

When assessing the operating leverage, we want to see how the various cost categories scale. Simply put, assessing if and how much each cost category increases as revenues grow. Below we have plotted the various cost categories as a percentage of revenues.

Truecaller: Costs as Percentage of Revenues

Source: Company Data & Redeye Research

Scalable OPEX

All costs are decreasing as a percentage of revenues. The decrease of OPEX (personnel costs + other external costs) as a share of revenues shows that the business scales well. Despite growing the organization, Truecaller still manages to increase its profit margin. In 2021, "other external expenses" were heightened by one-offs.

Gross margin

COGS (cost of goods sold) as a percentage of revenues is the inverted gross margin, i.e., one minus gross margin. The improvement here indicates a better revenue mix where revenue growth comes organically and/or through lower-cost sales channels. Also, a higher share of ads revenue through Facebook's ad auction has a positive impact on gross margin. This is because reported revenues from Facebook is actually the gross profit since Facebook doesn't report how much it takes.

Pressure on platform fees for iOS and Android

Epic Games, the company behind Fortnite and Unreal Engine, brought a lawsuit against Apple, challenging the tech giant's restrictions on alternative in-app purchasing methods and its 30% revenue cut. The lawsuit essentially shed light on software distributors' monopoly-like control. Apple has long argued that its 30% revenue cut reflects the immense value and reach of its App Store. In a September 2021 ruling, the judge decided in favor of Apple on nine out of ten counts. However, the judge prohibited Apple from preventing developers of informing their users of alternative paying methods within apps.

The suit brought by Epic Games has raised awareness about platform fees. Alphabet announced in October 2021 that first-year subscription platform fees would decrease from 30% to 15% as of January 1, 2022.

At the time of writing, Apple maintains its 30/15% policy.

Revenues**Revenue mix by business unit**

In 2021, 85% of Truecaller's revenues came from ads, 12% from subscriptions, three percent from TfB, and one percent from Other.

Quarterly data from the separate business units only exists from Q3 2020. During this short period, the sequential growth (from one quarter to the next) has been strong. The compound quarterly growth rate (CQGR) between Q3 2020 and Q1 2022 has been:

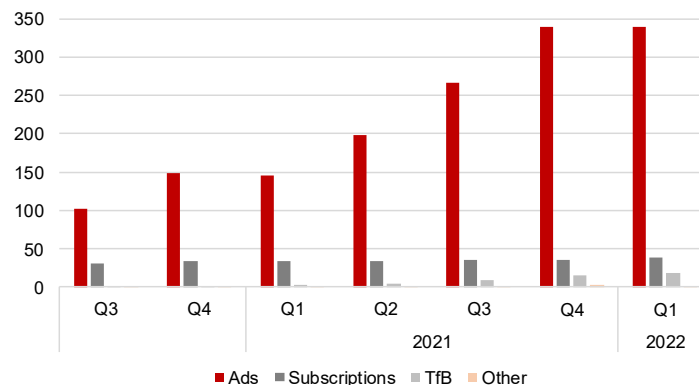
- Ads: +22%

- Subscriptions: +4 %
- TfB: +82%

While the growth of TfB is impressive, it comes from an almost non-existent base. Ads have also grown at an impressive rate, primarily stemming from a higher ad load. Subscriptions has been growing at about the same rate as the growth in the number of users.

As can be seen below, ad revenues are seasonally much stronger in Q4 than in Q1. This can be seen both in the transition from Q4 2020 to Q1 2021 and from Q4 2021 to Q1 2022.

Truecaller: Revenues by Business Unit (SEKm)



Source: Company Data & Redeye Research

Revenue mix by geography

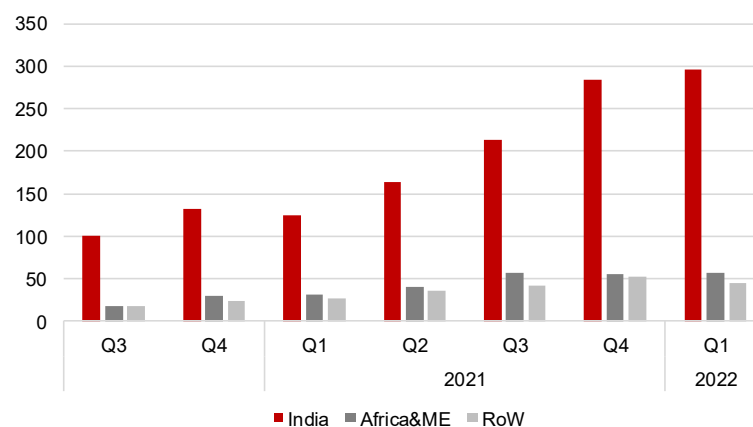
In 2021, 70% of revenues came from India, 16% from Africa & the Middle East, and the remaining 14% from rest of the world.

Since Q3 2020, sequential growth has been strong in all markets. The CQGR between Q3 2020 and Q1 2022 has been:

- India: +20%
- Africa & ME: +21%
- Rest of World (RoW): +17%

All markets are growing by approximately the same rate at a high level. However, in absolute numbers, India is naturally growing the fastest.

Truecaller: Revenues per Geography (SEKm)



Source: Company Data & Redeye Research

India's share of total DAUs has been rather constant at 76-77%.

Revenue growth in ads is a mix of growing users, CPM, and ad load

Since Ads is by far the biggest business unit, we will dig into the dynamics of this. As already stated, the business model looks like this:

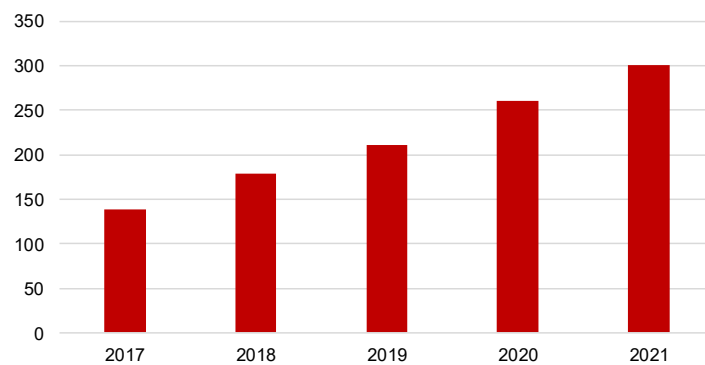


Source: company data

Number of users: MAUs, DAUs, and DAU/MAU ratio

Since 2017, MAUs have grown steadily with a CAGR of 21%. However, the growth is not exponential but almost linear, with an annual increase of around 40 million users.

Truecaller: Monthly Active Users (millions)



Source: Company Data & Redeye Research

All markets are growing their user bases at similar paces. The CQGR between Q3 2020 and Q1 2022 has been between +3.6% and +4.8%.

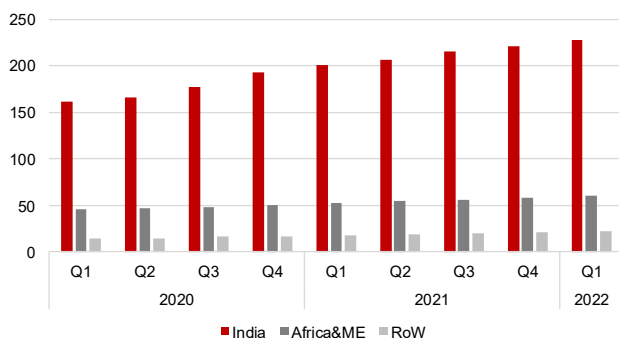
Compound quarterly growth rate: Q3'20-Q1'22

| | MAUs | DAUs |
|-------------|------|------|
| India | 4.2% | 4.8% |
| Africa & ME | 3.6% | 4.3% |
| RoW | 4.8% | 4.9% |
| Total | 4.2% | 4.7% |

Source: Redeye Research

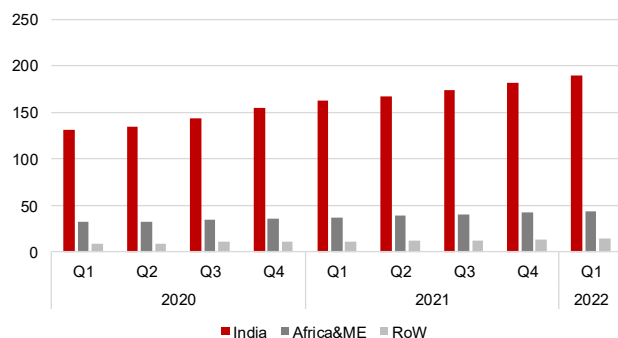
Looking at DAUs (daily active users), we see a slightly different picture. Both Africa & Middle East and India are growing their DAUs faster than their MAUs, whereas Rest of World is growing MAUs and DAUs at a similar pace.

Truecaller: MAU per Region (millions)



Source: Company Data & Redeye Research

Truecaller: DAU per Region (millions)

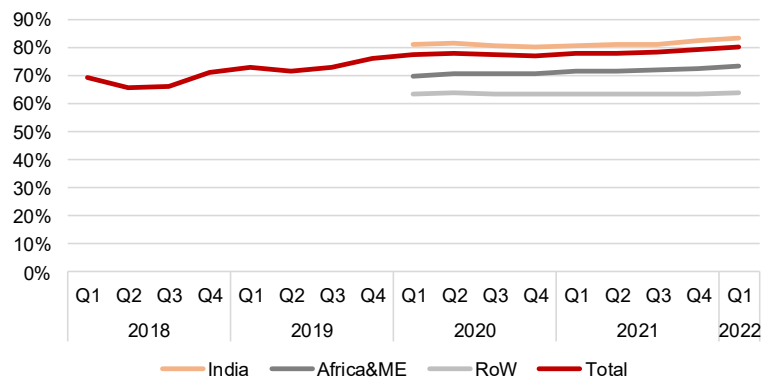


Source: Company Data & Redeye Research

The more rapid increase in DAUs versus MAUs indicates that the average user is becoming more engaged with the app and using the app more frequently. The relationship between MAUs and DAUs can be followed using the DAU/MAU ratio, which tells us how large of a share of MAUs also uses the app daily.

In 2018, the DAU/MAU ratio was in the high 60s in percentage terms but has now reached 80%. This indicates that the app has improved since then. The ratio is highest in India at 83% as of Q1 2022, followed by 73% for Africa & Middle East, and 64 % for Rest of World.

Truecaller: DAU/MAU Ratio per Region

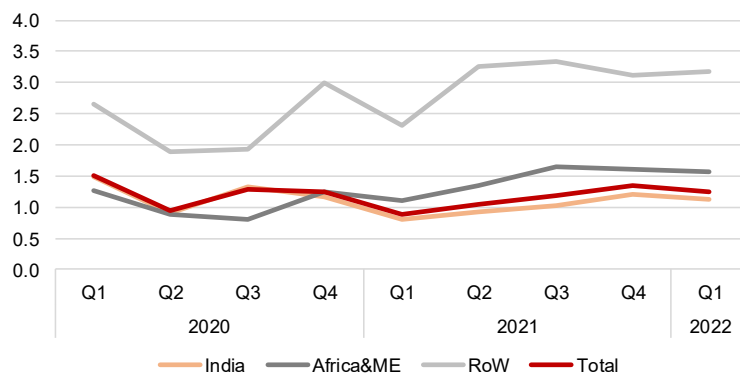


Source: Company Data & Redeye Research

CPM: Outside Truecaller's control, but an important factor

The second factor in the equation for ads revenue is CPM. The geographical development of this can be seen below.

Truecaller: CPM per Region (SEK)



Source: Company Data & Redeye Research

Between Q1 2020 and Q1 2022, CPM decreased from SEK 1.5 to SEK 1.24, largely owing to CPM in India dropping. On a more positive note, CPM in RoW has increased and is almost three times as high as that of India.

Note that the development of CPM is outside of Truecaller's control. While Truecaller can change its geographical mix, the local CPM rate should be looked at more as a market price or index of some kind.

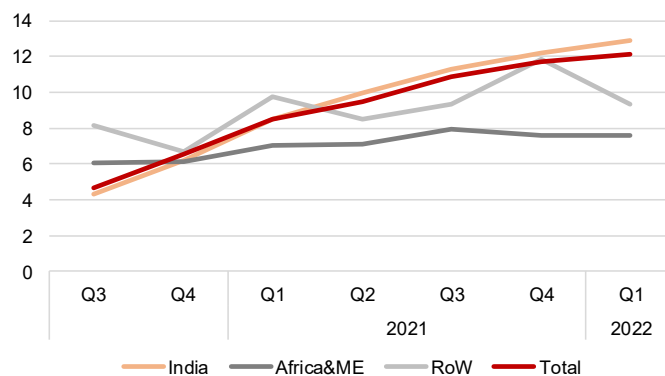
Ad load: The most important growth lever

Moving on to ad load, which we define as daily ad impressions per monetized DAU (DAIDAU). This is the second constituent of ARPU and the most important to monitor.

This metric is calculated using the following formula:

DAIDAU = Ads revenue / (CPM/1000) * DAU

Truecaller: Daily Ad Impressions per monetized DAU (DAIDAU)



Source: Company Data & Redeye Research

Looking at the chart above, we can see that total DAIDAU has increased from 4.7 in Q3 2020 to 12.1 in Q1 2022, corresponding to a CQGR of 17.1%. While not confirmed by the company, we estimate that almost all growth in ad load has come from India. According to our estimates, DAIDAU for India has had a CQGR of almost 20% from 4.4 to 12.9 during this period. We estimate that the increase in DAIDAU for the other markets have only been modest, with a CQGR of around 3%.

India is the market with the highest DAIDAU, and we believe this is because the network effects in India are already so strong that they make the app more of a "must have", in turn making it easier to increase ad load without increasing churn too much.

We think that much of the low-hanging fruit has now been taken by Truecaller regarding increasing the ad load. Thus, from 2023 and onwards, we think growth in ads sales will be driven more or less equally by DAUs and DAIDAU.

Putting it all together: Increasing DAIDAU has led to sharp ARPU growth

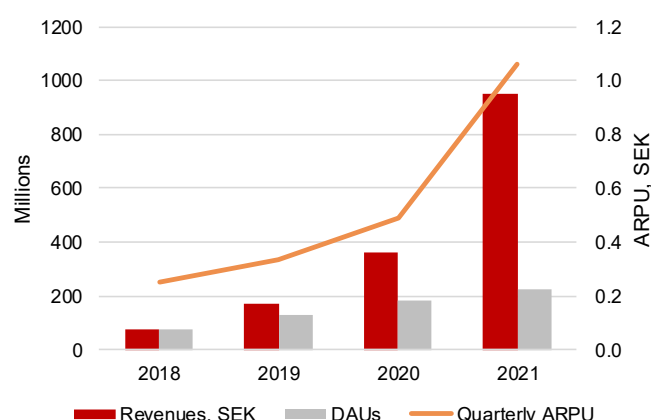
Given that the formula for ads revenue is:

Revenue = DAU * CPM * DAIDAU, we get that:

CPM * DAIDAU = ARPU for ads.

Illustrating revenues in relation to DAU and ARPU, we see below that ARPU growth has been the main contributor to the recent revenue growth. The ARPU growth is solely derived from growth in DAIDAU.

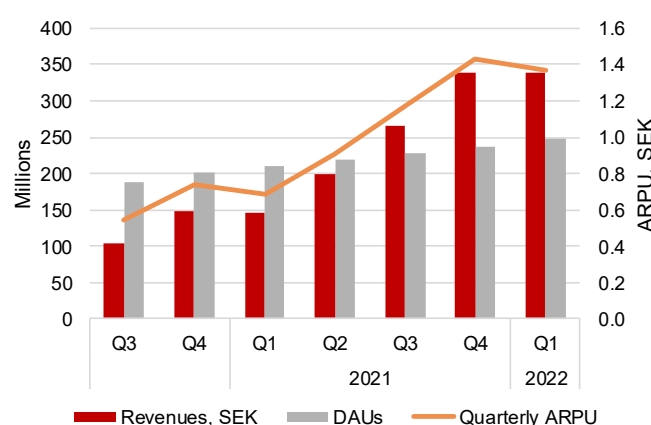
Looking at the below chart, we see that revenue growth for ads was driven mainly by DAUs in 2019 (+73% DAU vs +33% ARPU), equally distributed in 2020 (+47% DAU vs +45% ARPU), then almost completely driven from ARPU in 2021 (+21% DAU vs +116% ARPU).

Truecaller: Ads Revenues - DAUs & ARPU (Annual)

Source: Company Data & Redeye Research

As can be seen above, quarterly ads ARPU has increased from SEK 0.25 to SEK 1.06 in just three years.

Looking at the more recent quarterly development, we note the very drastic increase in ARPU. From Q3 2020 to Q1 2022, quarterly Ads ARPU has grown from SEK 0.55 to SEK 1.37.

Truecaller: Ads Revenues - DAUs & ARPU

Source: Company Data & Redeye Research

Key Drivers in the P&L

In this section, we will just briefly touch on the different levers in the income statement; in other words, what we believe to be the most important factors impacting the top line, the gross margin, and the profit margin.

As such, we will not go into depth in any of these. Instead, this section should be seen as more of a summary of what has been stated elsewhere throughout this report.

Revenues**B2C**

Free-to-use version

- Number of users
 - o New markets
 - o Increased penetration in existing markets

- iOS offering: Both new and existing markets can expand their user bases with improved offering for iOS/Apple
- ARPU
 - Increase CPM
 - Add high-CPM ad formats, e.g., larger size ads and video display ads
 - Maintain/improve accuracy of ads (personalization)
 - Obtain premiums through audience targeting or segmentation
 - Higher share of direct sales
 - Expand user base in markets with medium and high CPM (CPM in India is SEK 1.0-1.5 versus SEK 5 in the US)
 - Increase ad-load
 - (12.1 ad impressions per DAU in Q1 2022, versus 15.4 for Snap, 19.9 by Instagram, 51.4 by Facebook, and 87.7 by Twitter)
 - Improve rendering rates (less latency) gives more ads per time spent
 - Upgrades to 3G/4G/5G will improve this
 - "Offline" ads – ads shown when phone loses or lacks connection
 - Increase "utilization", i.e., increase DAIDAU
 - I.e., number of ads per time of usage
 - Avg user uses app 19x/day so should be able to reach 19 daily ads per DAU
 - There is a natural trade-off between ad inventory and CPM – so when there is a high inventory (supply), the CPM goes down
 - Increase DAU/MAU ratio (more time spent per user)
 - Increase share of direct sales versus programmatic ads
 - Advertising clients that work directly with Truecaller for customized ads are priced 3-5x compared to programmatic campaigns
 - In 2020, 84% of ad revenues came from advertising auctions (programmatic ads)

Premium version

- Number of subscribers
 - Increase penetration in high-income markets where likelihood of paying for an app is considerably higher than in India
 - Improve differentiation of premium service versus freemium version
- Subscription ARPU
 - Higher ARPU in high-income markets

B2B

- Number of customers
- Average revenue per customer (ARPC)
 - Increase volume per customer

Cost of goods sold (COGS) and gross margin

- Increase share of direct sales
 - Direct sales = not through an ad etc. nor through programmatic ads
 - Higher share increases gross margin
 - In 2020, 84% of ad revenues came from advertising auctions (programmatic ads)
- Cut taken by partners
 - Reduction of platform fees by partners, e.g., Android and iOS. Google/Android recently did this, though only affecting subscription revenues.
 - All else being equal, these platform fees should be pushed downwards over time, currently Microsoft and Epic Games are industry leaders with a 12% fee.
 - A higher share of ad sales through Facebook renders a higher gross margin. This is mainly artificial because sales reported through Facebook is really the gross profit, meaning that Facebook takes an *unknown* cut of revenues.
- Truecaller says that 75-80% is to be expected going forward.

Operating expenses (OPEX)

- Personnel

- Growth expenses incl. marketing, UA, pre-loads, etc.
 - o Expected to multiply by 2-3x during 2022

Seasonality Effects in Revenues

- Advertisement revenues typically fluctuate between quarters
- Q4 is strong as advertising budgets are typically the highest in Q4
- Since 2018, Q4 has accounted for an average of 33% of full-year ads revenue
- Q1 is weak seasonally as advertising budgets are low

Estimates

Ads

Knowing that **Ad Revenue = DAU * CPM * DAIDAU**, and having dug into the different levers of growth, we now want to put it all together. That is, answering the question about where growth comes from and how much there is possibly left to grow the different levers.

See below for a table of the sequential growth for the last six quarters and where it has come from.

| Truecaller: Sequential Ads Growth by Source | | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|-------------|
| (Q/Q growth) | Q4'20 | Q1'21 | Q2'21 | Q3'21 | Q4'21 | Q1'22 |
| DAU | 6.6% | 5.0% | 3.5% | 4.1% | 4.5% | 4.3% |
| CPM | -3.1% | -28.2% | 18.0% | 12.4% | 13.6% | -7.5% |
| DAIDAU | 39.9% | 29.6% | 11.7% | 14.6% | 7.4% | 3.6% |
| Total growth | 44.6% | -2.3% | 36.4% | 34.1% | 27.4% | 0.0% |

Source: Redeye Research

The historical growth rate of **DAU** has declined from 30%+ in 2019 to just below 20% by Q1'22. More relevant seems to be by looking at the numerical increase in DAU, rather than in percentage. The Y/Y increase has since 2019 hovered between 31m and 41m but leaning towards the upper end. Looking ahead, **we estimate a yearly increase of ~40m DAUs until 2028.**

Regarding **CPM**, this has decreased from 1.5 to 1.24 in the two-year period between Q1 2020 and Q1 2022. We believe this is an effect of the increase in ad load during this period. However, we believe the long-term development will be positive, mainly driven by the shift to online advertising. Increasing the share of users from high-CPM markets will also boost CPM. While this is very volatile and hard to predict, **we think it will increase more than 10% in 2022, and then grow by c.5% in the coming three years. After that, we model 3% growth pa until 2028.** Should the user growth in the US pick up speed, we see a large upside in this rate.

Last is **DAIDAU**, which has clearly been the main growth driver lately. As stated, we also see good potential for further growing this. As of Q1 2022, DAIDAU is 12.1. This should be compared to 15 for Snapchat and 20 for Instagram. Also, we know that each DAU interacts with the Truecaller app at an average of 19 times per day. From this, we assume that a DAIDAU of 19 is somewhat of a ceiling. Considering that latency is currently one of the hinders for Truecaller, we believe increased smartphone penetration and the rollout of 3G/4G/5G across the globe will be the important enablers of this. **We estimate DAIDAU to approach 13 this year, and then grow linearly to 19 by 2028.**

| Truecaller: ads revenues forecast | | | | | | |
|-----------------------------------|------|------|-------|-------|-------|-------|
| | 2020 | 2021 | 2022e | 2023e | 2024e | 2025e |
| DAU, millions | 185 | 224 | 261 | 300 | 341 | 382 |
| DAU, growth YoY | 15% | 21% | 17% | 15% | 14% | 12% |
| CPM, SEK | 1.3 | 1.1 | 1.3 | 1.3 | 1.4 | 1.5 |
| CPM, growth YoY | na | -9% | 12% | 4% | 5% | 5% |
| DAIDAU | 4.3 | 10.2 | 12.7 | 14.1 | 15.0 | 15.9 |
| DAIDAU, growth YoY | na | 137% | 24% | 11% | 6% | 6% |
| Ads revenues, SEKm | 363 | 949 | 1,554 | 2,063 | 2,606 | 3,249 |
| Ads revenues, growth YoY | na | 162% | 64% | 33% | 26% | 25% |

Source: Redeye Research

Premium Subscriptions

Subscription revenues = DAUs * Share of DAUs with Premium * ARPU

With this in mind, we will now investigate the different levers of growing Subscription revenues.

DAUs is the same as we dug into in the section about estimates for Ads revenue. Hence, we won't go into that here.

Subscribers as percentage of DAUs is the next lever. The levers affecting this is 1) share of DAUs from high-income countries, and 2) differentiation of the premium offering versus the basic offering. The main lever is however the share of DAUs coming from high-income markets. While we believe the absolute number of this will improve significantly over time, we don't estimate it to increase its share. Also, the growth in the number of premium subscribers has not been impressive so far, declining in absolute numbers during 2021. Hence, we choose to be cautious and estimate this metric to slowly move from 0.66% in 2021 to 0.60% in 2025.

ARPU growth will be driven by the subscriber mix becoming more tilted towards high-income markets like the USA. While we don't think these markets will increase their share of DAUs, we do think that users from these markets are more prone to opt for the premium version. We estimate monthly ARPU to increase linearly from SEK 7.9 in 2021 to SEK 9.5 in 2025.

| Truecaller: subscriptions revenues forecast | | | | | | |
|---|------|-------|-------|-------|-------|-------|
| | 2020 | 2021 | 2022e | 2023e | 2024e | 2025e |
| DAU, millions | 185 | 224 | 261 | 300 | 341 | 382 |
| DAU, growth YoY | 15% | 21% | 17% | 15% | 14% | 12% |
| Subscribers as a share of DAUs | na | 0.66% | 0.65% | 0.63% | 0.62% | 0.60% |
| Subscribers, millions | na | 1.5 | 1.7 | 1.9 | 2.1 | 2.3 |
| Subscription ARPU, SEKm | na | 7.9 | 8.3 | 8.6 | 9.1 | 9.5 |
| Subscription ARPU, growth YoY | na | na | 6% | 4% | 5% | 5% |
| Subscriptions, SEKm | 121 | 139 | 169 | 196 | 230 | 262 |
| Subscriptions, growth YoY | na | 15% | 22% | 16% | 17% | 14% |

Source: Redeye Research

Truecaller for Business

Looking at the recent quarters, TFB has increased sales sequentially by around SEK 5m. We think this is just the start and believe that revenue growth will accelerate as TFB becomes generally accepted as a must-have.

Looking into the rest of 2022 and 2023, we think the sequential revenue growth will be 30% in 2022, then declining to 22% in 2023. This leads to YoY growth of 247% in 2022 and 138% in 2023. In 2024 and 2025, we estimate 65% and 40% annual growth respectively for TFB.

Long-term tax rate around 24%

More than 70% of all revenues are in SEK, which means that Sweden is the main country affecting the tax level, implying that much of revenues will have a 20.6% tax rate.

Truecaller for Business generates revenues in India, which has a 25+10% tax rate, depending on a variety of factors. But in practice, the tax rate in India is 35%. However, this is for now only a minor part.

We estimate a tax rate of 24% from 2023e.

Redeye estimates versus consensus

The consensus figures represent the mean estimates of the analysts covering Truecaller (five according to FactSet). Our revenue forecast for 2022 is very much in line with consensus but decreases in the years following. We understand that consensus estimates factor in a more accelerated growth outlook regarding TfB, which in turn has a slight negative impact on the gross margin. Management commentary in the Q4 2021 earnings call stated that a 78% gross margin represents a sustainable level at present. However, it also explains that a successful TfB rollout could decrease the gross margin somewhat thanks to higher partner fees. Thus, our gross margin forecast is about 2%-points higher than the consensus in the near term. This trickles down to the EBIT margin, where we also forecast a slightly higher near-term margin.

| Truecaller: Redeye forecast vs consensus | | | | |
|--|-----------|-------|-------|-------|
| SEKm | | 2022e | 2023e | 2024e |
| Revenues | Redeye | 1,846 | 2,540 | 3,294 |
| | Consensus | 1,858 | 2,743 | 3,831 |
| diff (%) | | -1% | -7% | -14% |
| Gross margin | Redeye | 77% | 77% | 77% |
| | Consensus | 76% | 75% | 74% |
| EBITDA margin | Redeye | 40% | 42% | 43% |
| | Consensus | 39% | 40% | 41% |
| Revenue growth + EBITDA margin | Redeye | 103% | 80% | 73% |
| | Consensus | 104% | 87% | 80% |
| EBIT margin | Redeye | 38% | 42% | 42% |
| | Consensus | 38% | 39% | 40% |

Source: FactSet, Redeye Research

| Income Statement (SEKm) | 2020 | 2021 | Q1 | Q2e | Q3e | Q4e | 2022e | 2023e | 2024e | 2025e |
|-------------------------|-------------|--------------|-------------|-------------|-------------|-------------|---------------|---------------|---------------|---------------|
| Ads | 363 | 949 | 339 | 379 | 405 | 431 | 1,554 | 2,063 | 2,606 | 3,249 |
| Subscriptions | 121 | 139 | 39 | 41 | 43 | 46 | 169 | 196 | 230 | 262 |
| TfB | 2 | 33 | 18 | 24 | 31 | 40 | 114 | 271 | 448 | 627 |
| Other | 6 | 8 | 2 | 2 | 2 | 3 | 9 | 10 | 11 | 12 |
| Revenues | 491 | 1,129 | 398 | 447 | 481 | 520 | 1,846 | 2,540 | 3,294 | 4,149 |
| Growth YoY | 67% | 130% | 116% | 86% | 54% | 33% | 64% | 38% | 30% | 26% |
| CoGS | -169 | -273 | -87 | -103 | -111 | -120 | -420 | -584 | -758 | -954 |
| Other external costs | -56 | -248 | -73 | -92 | -115 | -143 | -423 | -533 | -659 | -788 |
| Personnel costs | -178 | -267 | -59 | -66 | -74 | -82 | -281 | -356 | -461 | -581 |
| D&A | -119 | -17 | -6 | -4 | -5 | -5 | -20 | -22 | -28 | -35 |
| Sum | -522 | -804 | -225 | -265 | -304 | -351 | -1,144 | -1,495 | -1,906 | -2,359 |
| Gross profit | 322 | 856 | 311 | 344 | 370 | 400 | 1,426 | 1,956 | 2,537 | 3,195 |
| margin | 66% | 76% | 78% | 77% | 77% | 77% | 77% | 77% | 77% | 77% |
| EBITDA adjusted | 105 | 473 | 181 | 189 | 184 | 177 | 731 | 1,076 | 1,426 | 1,834 |
| margin | 21% | 42% | 46% | 42% | 38% | 34% | 40% | 42% | 43% | 44% |
| EBITDA | 88 | 345 | 181 | 189 | 184 | 177 | 731 | 1,076 | 1,426 | 1,834 |
| margin | 18% | 31% | 46% | 42% | 38% | 34% | 40% | 42% | 43% | 44% |
| EBIT | -31 | 328 | 175 | 184 | 179 | 172 | 711 | 1,054 | 1,398 | 1,799 |
| margin | -6% | 29% | 44% | 41% | 37% | 33% | 38% | 42% | 42% | 43% |
| Net finance | -23 | -29 | -5 | -5 | -5 | -5 | -22 | -22 | -22 | -22 |
| PTP | -54 | 300 | 170 | 179 | 174 | 166 | 689 | 1,033 | 1,376 | 1,778 |
| Tax | 38 | -41 | -36 | -39 | -38 | -37 | -151 | -248 | -330 | -427 |
| Tax rate | -71% | -14% | -21% | -22% | -22% | -22% | -22% | -24% | -24% | -24% |
| Net Income | -16 | 258 | 134 | 140 | 136 | 130 | 539 | 785 | 1,046 | 1,351 |
| margin | -3% | 23% | 34% | 31% | 28% | 25% | 29% | 31% | 32% | 33% |

Source: Redeye Research

Valuation

In this section, we highlight two possible approaches to valuing Truecaller: peer-group trading multiples and a DCF analysis. For our fair value range, we have chosen to run a DCF that supports our Base Case of SEK 100. In our optimistic scenario, we are more bullish about primarily Truecaller for Business, rendering a Bull Case of SEK 180. We also consider long-term risks to the business model and derive our Bear Case at SEK 40.

Peer Group Trading Multiples

As we have seen earlier, Truecaller has a limited number of direct competitors – none of these is publicly traded. The company operates in a unique space – both in terms of its value proposition and geographies – and we argue it lacks direct peers. Against this backdrop, we start by identifying three groups of potential peers based on the categories below:

- **Advertising:** With ~85% of Truecaller's revenues generated through digital advertising, we look at a range of global players with similar revenue profiles. These include Alphabet (75% of revenues from advertising), Twitter (89%), Yelp (95%), Facebook (97%), Pinterest (99%) and Snap (99%).
- **Consumer subscription:** Around 10% of Truecaller's revenues are derived from its Freemium subscription service. Some companies we consider here include Bumble, Kahoot, Match, Sleep Cycle, Storytel, Netflix, and Spotify.
- **Communication:** We also consider a range of other potential peers based on companies that operate within the software-based communications industry, including Bandwidth, CM.com, RingCentral, Sinch, Twilio, and Zoom.

Operator benchmarking

Key findings from the peer-group analysis include:

- **Revenue growth:** We expect Truecaller to grow revenues by 64% in 2022e and model a 2021-25E revenue CAGR of 38%. This impressive growth outlook is quite unparalleled across our three peer groups.
- **Margins:** Operating margins vary significantly across the peer groups: best-in-class advertising peers achieve ~50%, and some communication operators are stuck around single-digit margins. Truecaller clearly belongs in the higher range thanks to its ~40% operating margins.
- **DAUs and MAUs:** While the value of DAUs and MAUs is greatly determined by the monetization of these, Truecaller is valued much lower than all peers when looking at market cap divided by DAU or MAU. This is partly deserved since CPM rates are much lower in emerging markets, which is the core of Truecaller.
- **Other factors:** Truecaller will likely have lower liquidity than most of these peer companies, thanks to differences in owner structure and market cap. Moreover, we recognize that the company's unique focus on emerging markets sets it apart from almost all of the mentioned companies.

| Company name | EV | EV/S | | | EV/EBIT | | | P/E | | |
|---|---------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | SEKm | 2022 | 2023 | 2024 | 2022 | 2023 | 2024 | 2022 | 2023 | 2024 |
| Ads platforms | | | | | | | | | | |
| Alphabet Inc. Class A | 13,871,917 | 4.7 | 4.0 | 3.5 | 16.0 | 13.8 | 11.8 | 19.8 | 16.9 | 14.8 |
| Meta Platforms Inc. Class A | 4,543,081 | 3.6 | 3.1 | 2.7 | 11.9 | 10.0 | 8.5 | 14.7 | 12.6 | 10.9 |
| Twitter, Inc. | 330,483 | 5.6 | 4.6 | 4.0 | neg | >100 | 90.9 | 25.6 | 30.3 | 24.2 |
| Snap, Inc. Class A | 207,880 | 4.0 | 3.0 | 2.3 | neg | neg | >100 | neg | neg | 73.6 |
| Pinterest, Inc. Class A | 103,414 | 3.4 | 2.8 | 2.4 | 39.1 | 25.2 | 20.0 | 49.2 | 32.1 | 23.0 |
| Yelp Inc | 18,280 | 1.6 | 1.4 | 1.3 | 28.1 | 18.7 | 11.8 | 43.5 | 30.7 | 15.6 |
| Average | 3,179,176 | 3.8 | 3.2 | 2.7 | 15.9 | 11.3 | 23.8 | 25.5 | 20.4 | 27.0 |
| Median | 269,182 | 3.8 | 3.0 | 2.5 | 22.1 | 16.2 | 11.8 | 25.6 | 30.3 | 19.3 |
| Consumer subscriptions | | | | | | | | | | |
| Netflix, Inc. | 934,619 | 2.9 | 2.6 | 2.4 | 14.7 | 13.1 | 10.9 | 16.5 | 14.9 | 12.2 |
| Match Group, Inc. | 263,445 | 7.6 | 6.5 | 5.6 | 27.4 | 22.0 | 17.8 | 30.0 | 24.0 | 20.0 |
| Spotify Technology SA | 182,938 | 1.5 | 1.3 | 1.1 | neg | neg | 59.7 | neg | neg | 65.5 |
| HelloFresh SE | 58,253 | 0.7 | 0.6 | 0.6 | 15.8 | 10.7 | 8.0 | 25.7 | 17.2 | 12.6 |
| Bumble, Inc. Class A | 50,491 | 5.4 | 4.3 | 3.6 | 95.4 | 46.8 | 27.3 | >100 | 55.3 | 28.9 |
| Kahoot ASA | 9,724 | 6.4 | 4.7 | 3.7 | 56.1 | 21.0 | 12.7 | >100 | 39.7 | 23.0 |
| Storytel AB Class B | 3,402 | 1.0 | 0.9 | 0.8 | neg | neg | 43.7 | neg | neg | >100 |
| Sleep Cycle AB | 619 | 2.8 | 2.2 | 1.7 | 12.0 | 9.2 | 7.1 | 19.9 | 15.4 | 11.7 |
| Average | 187,936 | 3.5 | 2.9 | 2.4 | 27.7 | 15.4 | 23.4 | 11.5 | 20.8 | 21.7 |
| Median | 54,372 | 2.8 | 2.4 | 2.1 | 21.6 | 17.1 | 15.2 | 22.8 | 20.6 | 20.0 |
| Communications | | | | | | | | | | |
| Zoom Video Communications, Inc. Class A | 279,554 | 6.1 | 5.4 | 4.9 | 18.6 | 17.3 | 16.2 | 27.6 | 25.2 | 23.0 |
| Twilio, Inc. Class A | 127,474 | 3.3 | 2.5 | 2.0 | neg | >100 | 66.5 | neg | >100 | >100 |
| RingCentral, Inc. Class A | 66,092 | 3.3 | 2.7 | 2.2 | 28.6 | 21.4 | 15.9 | 28.8 | 21.5 | 16.2 |
| Sinch AB | 41,098 | 1.5 | 1.3 | 1.1 | 23.2 | 15.2 | 11.2 | 76.6 | 25.7 | 15.8 |
| Bandwidth Inc. Class A | 7,619 | 1.4 | 1.2 | 1.0 | 89.8 | 28.2 | 13.4 | >100 | 31.0 | 11.1 |
| CM.com N.V. | 3,892 | 1.2 | 0.9 | 0.8 | neg | neg | neg | neg | neg | neg |
| Average | 87,621 | 2.8 | 2.3 | 2.0 | 26.7 | 13.7 | 20.5 | 22.2 | 17.2 | 11.0 |
| Median | 53,595 | 2.4 | 1.9 | 1.5 | 25.9 | 19.3 | 15.9 | 28.8 | 25.4 | 16.0 |
| Truecaller AB Class B | 18,207 | 9.8 | 6.6 | 4.8 | 25.8 | 17.2 | 12.0 | 37.7 | 25.1 | 17.5 |

Source: Redeye, FactSet; trading multiples are based on consensus estimates; Alphabet KPIs refer to YouTube

| Company name | EV | Sales growth | | | Gross margin | | | EBIT margin | | |
|---|---------------|--------------|------------|------------|--------------|------------|------------|-------------|------------|------------|
| | SEKm | 2022 | 2023 | 2024 | 2022 | 2023 | 2024 | 2022 | 2023 | 2024 |
| Ads platforms | | | | | | | | | | |
| Alphabet Inc. Class A | 13,871,917 | 35% | 15% | 14% | 56% | 56% | 56% | 29% | 29% | 30% |
| Meta Platforms Inc. Class A | 4,543,081 | 25% | 16% | 14% | 79% | 79% | 79% | 30% | 31% | 32% |
| Twitter, Inc. | 330,483 | 35% | 21% | 17% | 64% | 65% | 65% | -2% | 4% | 4% |
| Snap, Inc. Class A | 207,880 | 46% | 35% | 31% | 62% | 66% | 71% | -17% | -6% | 2% |
| Pinterest, Inc. Class A | 103,414 | 36% | 23% | 19% | 79% | 80% | 80% | 9% | 11% | 12% |
| Yelp Inc | 18,280 | 33% | 10% | 8% | 92% | 92% | 92% | 6% | 8% | 11% |
| Average | 3,179,176 | 35% | 20% | 17% | 72% | 73% | 74% | 9% | 13% | 15% |
| Median | 269,182 | 35% | 19% | 16% | 72% | 72% | 75% | 7% | 9% | 11% |
| Consumer subscriptions | | | | | | | | | | |
| Netflix, Inc. | 934,619 | 27% | 9% | 11% | 42% | 42% | 43% | 20% | 20% | 22% |
| Match Group, Inc. | 263,445 | 35% | 17% | 16% | 71% | 71% | 71% | 28% | 30% | 32% |
| Spotify Technology SA | 182,938 | 25% | 15% | 13% | 25% | 26% | 25% | -3% | 0% | 2% |
| HelloFresh SE | 58,253 | 32% | 16% | 12% | 54% | 56% | 67% | 5% | 6% | 7% |
| Bumble, Inc. Class A | 50,491 | 43% | 24% | 21% | 72% | 72% | 73% | 6% | 9% | 13% |
| Kahoot ASA | 9,724 | 96% | 36% | 28% | 93% | 94% | 93% | 11% | 22% | 29% |
| Storytel AB Class B | 3,402 | 24% | 18% | 16% | 39% | 39% | 39% | -10% | -2% | 2% |
| Sleep Cycle AB | 619 | 22% | 28% | 26% | 77% | 77% | 79% | 23% | 24% | 24% |
| Average | 187,936 | 38% | 20% | 18% | 59% | 59% | 61% | 10% | 14% | 16% |
| Median | 54,372 | 30% | 18% | 16% | 62% | 63% | 69% | 8% | 15% | 17% |
| Communications | | | | | | | | | | |
| Zoom Video Communications, Inc. Class A | 279,554 | 28% | 13% | 10% | 76% | 76% | 75% | 33% | 31% | 30% |
| Twilio, Inc. Class A | 127,474 | 59% | 29% | 30% | 52% | 53% | 53% | -1% | 1% | 3% |
| RingCentral, Inc. Class A | 66,092 | 47% | 24% | 22% | 78% | 79% | 78% | 12% | 12% | 14% |
| Sinch AB | 41,098 | 73% | 16% | 16% | 28% | 29% | 30% | 6% | 8% | 10% |
| Bandwidth Inc. Class A | 7,619 | 32% | 16% | 16% | 46% | 47% | 47% | 2% | 4% | 8% |
| CM.com N.V. | 3,892 | 38% | 27% | 22% | 27% | 26% | 29% | -6% | -5% | -3% |
| Average | 87,621 | 46% | 21% | 19% | 51% | 52% | 52% | 7% | 9% | 10% |
| Median | 53,595 | 43% | 20% | 19% | 49% | 50% | 50% | 4% | 6% | 9% |
| Truecaller AB Class B | 18,207 | 65% | 48% | 40% | 76% | 75% | 74% | 38% | 39% | 40% |

Source: Redeye, FactSet; trading multiples are based on consensus estimates; Alphabet KPIs refer to YouTube

DAUs, MAUs and subscribers

| Company name | Mkt Cap SEKm | Usage metrics, millions | | | Usage metrics | | |
|-----------------------------|-----------------|-------------------------|-------|------|---------------|-----------|-----------|
| | | MAUs | DAUs | Subs | Price/MAU | Price/DAU | Price/Sub |
| Ads platforms | | | | | | | |
| Alphabet Inc. Class A | 14,653,466 | 2,560 | - | 50 | 5,724 | na | 293,069 |
| Meta Platforms Inc. Class A | 4,755,900 | 3,600 | 1,960 | - | 1,321 | 2,426 | na |
| Twitter, Inc. | 298,132 | - | 229 | - | na | 1,302 | na |
| Snap, Inc. Class A | 217,490 | - | 332 | - | na | 655 | na |
| Pinterest, Inc. Class A | 127,741 | 433 | - | - | 295 | na | na |
| Yelp Inc | 20,999 | 77 | - | - | 273 | na | na |
| Consumer subscriptions | | | | | | | |
| Netflix, Inc. | 813,450 | - | - | 222 | na | na | 3,664 |
| Match Group, Inc. | 219,180 | 100 | - | 16 | 2,192 | na | 13,699 |
| Spotify Technology SA | 193,281 | 422 | - | 182 | 458 | na | 1,062 |
| HelloFresh SE | 60,820 | - | - | - | na | na | na |
| Bumble, Inc. Class A | 39,356 | - | - | 3 | na | na | 13,119 |
| Kahoot ASA | 12,132 | - | - | 1 | na | na | 10,110 |
| Storytel AB Class B | 4,037 | - | - | 1 | na | na | 3,670 |
| Sleep Cycle AB | 815 | 2 | - | 1 | 388 | na | 906 |
| Truecaller AB Class B | 20,605 | 310 | 248 | 2 | 66 | 83 | 12,878 |

Source: Redeye, FactSet; trading multiples are based on consensus estimates; Alphabet KPIs refer to YouTube

Market perception

We estimate that ~95% of Truecaller's revenues are derived from emerging markets – most of this from India. This will harm the sentiment towards Truecaller (and its valuation) since investors tend to apply a higher cost of capital to emerging markets.

Stock-Specific Factors to Consider

High exposure to emerging markets

Less than 5% of the company's revenues stem from developed markets. Truecaller's key exposures include India (73% of MAUs and 74% of revenues) and the Middle East & Africa (19% of MAUs and 14% of revenues). Thus, we expect investors to apply a higher cost of capital in relation to peers. This is likely influenced by higher political and regulatory risks – as was the case in May 2022, when the Indian government announced plans to develop a caller ID system with similar features as Truecaller. Moreover, we understand that there is an additional macroeconomic uncertainty to consider in these countries.

Business model risk

Truecaller has been highly successful in India, and we argue there is plenty of room for growth in this market for many years to come. We think Latin America constitutes an example of a reasonably unpenetrated emerging market, which should bode for an exciting growth opportunity, given the significant spam/scam volumes in the region (particularly Brazil). However, there is some uncertainty as to the company's positioning and opportunities for expanding its presence in developed economies, such as the US.

Multiple sources indicate that iOS/iPhones enjoy a dominant market share in developed economies – these constitute regions where Truecaller has low penetration. As previously mentioned, Android accounts for ~96% of its total users. A challenge has been that the user experience is much better on Android, as many app features are unavailable on iOS. However, we understand that this is a prioritized growth area for Truecaller, and a fully reworked iOS product will launch sometime in 2022. Once improvements in the user experience materialize, and/or user growth accelerates in developed economies, we expect to see an improved market sentiment.

Discounted Cash Flow

We derive our fair value range from a DCF analysis. We think it is more reasonable, considering the shortcomings of a peer multiples-based approach discussed above.

Our key forecast inputs for a potential DCF are summarized below. Given the emerging market and business risks discussed above, we use a high 9% WACC and a 2% terminal growth rate. This yields a DCF valuation of SEK 100 per share.

| Truecaller: DCF assumptions in Base, SEKm | | | | |
|---|----------|-----------|-----------------------------|---------------|
| Assumptions: | 2021-25e | 2025e-30e | Calculations: | |
| Sales CAGR | 38% | 18% | NPV of FCF | 17,127 |
| Average EBIT margin | 41% | 45% | NPV of Terminal Value | 20,409 |
| | | | Value of Firm | 37,536 |
| Terminal | | | | |
| Sales growth | 2% | | | |
| EBIT margin | 48% | | | |
| WACC | 9% | | Net Cash 2022e (+) | 1,730 |
| Shares 2023e (m) | 393.0 | | Equity Value | 39,266 |
| | | | Fair value per share | 100 |

Source: Redeye Research

Truecaller: Fair Value Base Case Sensitivity Table

| | | WACC | | | | |
|---------------|-----|------|-----|-----|-----|-----|
| | | 11% | 10% | 9% | 8% | 7% |
| EBITDA margin | 40% | 68 | 77 | 88 | 104 | 125 |
| | 45% | 71 | 81 | 94 | 111 | 136 |
| | 50% | 75 | 86 | 100 | 119 | 146 |
| | 55% | 79 | 91 | 106 | 126 | 156 |
| | 60% | 83 | 95 | 112 | 134 | 166 |

Source: Redeye Research

Bear Case: SEK 40

In our Bear Case, Truecaller for Business is less successful. Also, the consumer app shows lower organic user growth, leading to higher UA investments which lowers the margin. Also, CPM remains at a lower level due to lower success in high CPM markets.

Sales CAGR 2021-2025e: 27%
 Sales CAGR 2025e-2030e: 10%
 Avg. EBIT-m 2022e-2025e: 38%
 Avg. EBIT-m 2025e-2030e: 34%
 Terminal growth: 2%
 Terminal EBIT-m: 30%
 WACC: 9%

Base Case SEK 100

Sales CAGR 2021-2025e: 38%
 Sales CAGR 2025e-2030e: 18%
 Avg. EBIT-m 2022e-2025e: 41%
 Avg. EBIT-m 2025e-2030e: 45%
 Terminal growth: 2%
 Terminal EBIT-m: 48%
 WACC: 9%

Bull Case SEK 180

In our Bull Case, Truecaller for Business is more successful and becomes a big business on its own. Also, the consumer app succeeds in penetrating high CPM markets like the USA and on iOS in general. We still don't estimate any big uptake in Subscription as a part of DAUs. Thus, this constitutes further upside potential.

Sales CAGR 2021-2025e: 46%
 Sales CAGR 2025e-2030e: 24%
 Avg. EBIT-m 2022e-2025e: 46%
 Avg. EBIT-m 2025e-2030e: 54%
 Terminal growth: 2%
 Terminal EBIT-m: 52%
 WACC: 9%

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

People: 5

Truecaller, established in 2009, is still run by its two founders – Alan Mamedi as CEO and Nami Zarringhalam as CSO – who own ~15% of the capital but ~60% of the votes. The founders are, in our opinion, very passionate, have a visionary attitude towards the business's opportunities, and have strong market insights. We assess that the management team is experienced and has good educational backgrounds and professional experience. The management team has, in our opinion, demonstrated significant execution capabilities, evidenced by the fast revenue growth and operating leverage in recent years (especially since 2020). Truecaller has a well-known owner base, consisting of several Venture Capital funds and Swedish institutional capital.

Business: 4

The business is asset-light and able to scale without expensive reinvestments. This scalability is further strengthened by strategic alliances (e.g., Alphabet/Android and CPaaS companies), which help drive new sales and a history of successful expansions into new markets. We think Truecaller operates in a highly profitable market environment (leading ad-platform businesses report 40%+ operating margins) and faces limited direct competition. Another positive, in our opinion, is that Truecaller has a strong value proposition and solves genuine customer needs. We think the company will remain competitive for a long time thanks to its significant, reinforcing network effects, which create high barriers to competing in core markets. However, we recognize a couple of important risks that could hamper future growth. This concerns the geographic concentration of revenues and users to India and a dependency on the Android platform.

Financials: 4

Truecaller has a strong cash position and very stable cash flows, which enables opportunistic M&A activities. The company has an impressive return on equity and invested capital and enjoys robust profit margins. We forecast meaningful revenue and EPS growth in the years to come. However, the company does not receive full marks as it lacks a long-enough track record of positive cash flows.

| | 2021 | 2022E | 2023E | 2024E | DCF Valuation Metrics | Sum DCF (SEKm) |
|--------------------------------------|-------|-------|-------|-------|-----------------------|------------------------------|
| INCOME STATEMENT | | | | | 2023-26 | 3,963 |
| Revenues | 1,129 | 1,846 | 2,540 | 3,294 | 2027-34 | 13,165 |
| Cost of Revenues | 273 | 420 | 584 | 758 | 2034- | 20,409 |
| Gross Profit | 856 | 1,426 | 1,956 | 2,537 | Firm Value | 37,536 |
| Operating Expenses | 512 | 695 | 880 | 1,111 | Net Debt 2022e | -1,730 |
| EBITDA | 345 | 731 | 1,076 | 1,426 | Equity Value | 39,266 |
| Depreciation & Amortization | 17 | 20 | 22 | 28 | Fair Value per Share | 100 |
| EBIT | 328 | 711 | 1,054 | 1,398 | | |
| Net Financial Items | -29 | -22 | -22 | -22 | | |
| EBT | 300 | 689 | 1,033 | 1,376 | | |
| Income Tax Expenses | 41 | 151 | 248 | 330 | | |
| Non-Controlling Interest | 0 | 0 | 0 | 0 | | |
| Net Income | 258 | 539 | 785 | 1,046 | | |
| BALANCE SHEET | | | | | | |
| Assets | | | | | | |
| Current assets | | | | | | |
| Cash & Equivalents | 1,238 | 1,730 | 2,488 | 3,506 | | |
| Inventories | 0 | 0 | 0 | 0 | | |
| Accounts Receivable | 154 | 258 | 330 | 428 | | |
| Other Current Assets | 175 | 175 | 175 | 175 | | |
| Total Current Assets | 1,568 | 2,163 | 2,994 | 4,109 | | |
| Non-current assets | | | | | | |
| Property, Plant & Equipment, Net | 1 | 3 | 10 | 18 | | |
| Goodwill | 0 | 34 | 34 | 34 | | |
| Intangible Assets | 1 | 10 | 22 | 37 | | |
| Right-of-Use Assets | 86 | 67 | 48 | 23 | | |
| Shares in Associates | 0 | 0 | 0 | 0 | | |
| Other Long-Term Assets | 36 | 36 | 36 | 36 | | |
| Total Non-Current Assets | 125 | 151 | 150 | 148 | | |
| Total Assets | 1,693 | 2,314 | 3,143 | 4,257 | | |
| Liabilities | | | | | | |
| Current liabilities | | | | | | |
| Short-Term Debt | 0 | 0 | 0 | 0 | | |
| Short-Term Lease Liabilities | 16 | 16 | 16 | 16 | | |
| Accounts Payable | 40 | 74 | 102 | 132 | | |
| Other Current Liabilities | 69 | 69 | 69 | 69 | | |
| Total Current Liabilities | 187 | 269 | 313 | 381 | | |
| Non-current liabilities | | | | | | |
| Long-Term Debt | 0 | 0 | 0 | 0 | | |
| Long-Term Lease Liabilities | 72 | 72 | 72 | 72 | | |
| Other Long-Term Liabilities | 23 | 23 | 23 | 23 | | |
| Total Non-current Liabilities | 95 | 95 | 95 | 95 | | |
| Non-Controlling Interest | 0 | 0 | 0 | 0 | | |
| Shareholder's Equity | 1,411 | 1,950 | 2,735 | 3,781 | | |
| Total Liabilities & Equity | 1,693 | 2,314 | 3,143 | 4,257 | | |
| CASH FLOW | | | | | | |
| NOPAT | 283 | 555 | 801 | 1,062 | | |
| Change in Working Capital | -244 | -21 | -28 | -30 | | |
| Operating Cash Flow | 381 | 559 | 779 | 1,044 | | |
| Capital Expenditures | 0 | -3 | -8 | -10 | | |
| Investment in Intangible Assets | -1 | -10 | -13 | -16 | | |
| Investing Cash Flow | -152 | -39 | -20 | -26 | | |
| Financing Cash Flow | 813 | -29 | 0 | 0 | | |
| Free Cash Flow | 379 | 547 | 758 | 1,017 | | |
| DCF Valuation Metrics | | | | | | |
| CAPITAL STRUCTURE | | | | | | |
| Equity Ratio | 0.8 | 0.8 | 0.9 | 0.9 | | |
| Debt to equity | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Net Debt | -1238 | -1730 | -2488 | -3506 | | |
| Capital Employed | 1506 | 2045 | 2830 | 3876 | | |
| Working Capital Turnover | 7.9 | 11.2 | 13.2 | 14.8 | | |
| GROWTH | | | | | | |
| Revenue Growth | 130% | 64% | 38% | 30% | | |
| Basic EPS Growth | na | 38% | 43% | 31% | | |
| Adjusted Basic EPS Growth | na | 38% | 43% | 31% | | |
| PROFITABILITY | | | | | | |
| ROE | 33% | 32% | 34% | 32% | | |
| ROCE | 22% | 35% | 37% | 36% | | |
| ROIC | 1234% | 311% | 342% | 373% | | |
| EBITDA Margin (%) | 31% | 40% | 42% | 43% | | |
| EBIT Margin (%) | 29% | 38% | 42% | 42% | | |
| Net Income Margin (%) | 23% | 29% | 31% | 32% | | |
| VALUATION | | | | | | |
| Basic EPS | 1.0 | 1.4 | 2.0 | 2.6 | | |
| Adjusted Basic EPS | 1.0 | 1.4 | 2.0 | 2.6 | | |
| P/E | 112.2 | 37.3 | 26.0 | 19.9 | | |
| EV/Revenue | 24.6 | 9.9 | 7.1 | 5.2 | | |
| EV/EBITDA | 80.4 | 25.1 | 16.7 | 12.1 | | |
| EV/EBIT | 84.5 | 25.8 | 17.0 | 12.4 | | |
| P/B | 20.5 | 10.3 | 7.5 | 5.5 | | |
| SHAREHOLDER STRUCTURE | | | | | CAPITAL % | VOTES % |
| Sequoia Capital | | | | | 17.5% | 8.2% |
| Nami Zarringhalam | | | | | 7.3% | 29.9% |
| Alan Mamedi | | | | | 7.3% | 29.9% |
| Kleiner Perkins Caufield & Byers LLC | | | | | 7.0% | 3.3% |
| Handelsbanken Fonder | | | | | 5.5% | 2.6% |
| SHARE INFORMATION | | | | | | |
| Reuters code | | | | | | TRUE B |
| List | | | | | | Large Cap Stockholm |
| Share price | | | | | | 52 |
| Total shares, million | | | | | | 373.96 |
| MANAGEMENT & BOARD | | | | | | |
| CEO | | | | | | Alan Mamedi |
| CFO | | | | | | Odd Bolin |
| Chairman | | | | | | Bing Gordon |
| ANALYSTS | | | | | | |
| Jesper von Koch | | | | | | Redeye AB |
| Forbes Goldman | | | | | | Mäster Samuelsgatan 42, 10tr |
| | | | | | | 111 57 Stockholm |

Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth.

Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making.

If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number. The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character.

The People rating is based on quantitative scores in seven categories:

- Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock.

The Business rating is based on quantitative scores grouped into five sub-categories:

- Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak.

The Financial rating is based on quantitative scores that are grouped into five separate categories:

- Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Disclaimer

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Redeye Rating (2022-06-13)

| Rating | People | Business | Financials |
|-----------|--------|----------|------------|
| 5p | 32 | 15 | 4 |
| 3p - 4p | 156 | 138 | 48 |
| 0p - 2p | 5 | 40 | 141 |
| Company N | 193 | 193 | 193 |

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CONFLICT OF INTERESTS

Jesper von Koch. owns shares in the company : No

Forbes Goldman owns shares in the company : No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.