

Sea Ltd (SE US)

BUY

Share Price USD 323.05
12m Price Target USD 378.00 (+17%)

Southeast Asian Champion

ASEAN super-app in the making. Initiate BUY

We believe Sea is one of the best proxies to ride the ASEAN digitisation theme, given Shopee's position as the top e-commerce app regionally, which paves the way for user conversion into digital finance. Growth in these segments appear at an early stage, and investments are funded by cash generative Garena via the Free Fire franchise. Initiate BUY with SOTP-based TP of USD378. Key risk is revenue concentration, as we think Free Fire accounts for a significant portion of current gross profitability.

Garena Free Fire still early in its lifecycle

We forecast 2020-23E revenue CAGR of 59.4%, driven by growth across digital entertainment (38.1%), e-commerce (75.3%) and digital financial services (118%). In 2Q21, Free Fire was the highest grossing mobile battle royale game in the US for the second consecutive quarter. The game remains extremely popular in Southeast Asia, Taiwan, Latin America, and India. Garena quarterly active users (QAU) saw a 1Q17-2Q21 CQGR of 16.2% to 725m, and we believe Free Fire is still in its early stages of its lifecycle with the potential to be a major IP franchise.

Shopee is the top e-commerce app in Southeast Asia

Shopee is the top e-commerce marketplace by visits, time spent (Android) and downloads in Southeast Asia. GMV saw a 1Q17-2Q21 CQGR of 20.3% to USD15b. We believe Shopee's strengths are in its i) localisation, ii) user-friendliness, iii) and aggressive marketing strategies. Current take rates are around 6-8%, and Sea sees high-single-digit or low-teens percentage of GMV (our FY23E: 10.3%) is achievable in the long run. Sea is also excited about SeaMoney's prospects via Shopee and other avenues in reaching the 74% of population in Southeast Asia that are underbanked or unbanked.

Forecasting profit in FY23E

We forecast Sea to achieve EBITDA/ net profit of USD1.7b/USD236m in 2023E, largely driven by economies of scale. A factor that could delay Sea's turn to profitability is if we have underestimated sales & marketing and R&D expenses as it has historically prioritised user acquisition and retention to maximise monetisation opportunities down the road. We have factored Sea's fundraising of 11m new ADS and USD2.5b of convertible bonds into our forecasts.

FYE Dec (USD m)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue	2,175	4,376	8,826	13,257	17,710
EBITDA	(770)	(1,123)	(975)	(300)	1,711
Core net profit	(1,463)	(1,618)	(1,657)	(1,383)	236
Core FDEPS (cts)	(315.8)	(327.5)	(285.9)	(243.5)	40.6
Core FDEPS growth(%)	nm	nm	nm	nm	nm
Net DPS (cts)	0.0	0.0	0.0	0.0	0.0
Core FD P/E (x)	nm	nm	nm	nm	nm
P/BV (x)	16.0	29.1	29.3	34.9	30.9
Net dividend yield (%)	0.0	0.0	0.0	0.0	0.0
ROAA (%)	(39.4)	(20.6)	(11.9)	(7.7)	1.2
EV/EBITDA (x)	nm	nm	nm	nm	99.4
Net gearing (%) (incl perps)	net cash	net cash	net cash	net cash	net cash
Consensus net profit	-	-	na	na	na
MKE vs. Consensus (%)	-	-	na	na	na

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Company Description

Sea is an internet company that has businesses in gaming, e-commerce and digital financial services.

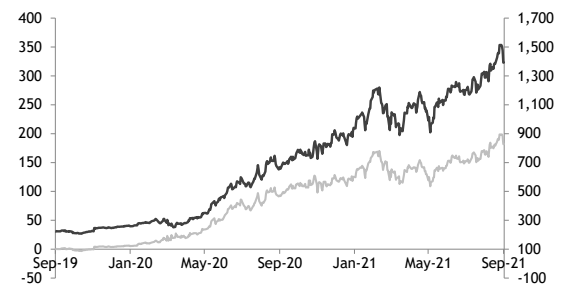
Statistics

52w high/low (USD)	353.36/147.55
3m avg turnover (USDm)	191.9
Free float (%)	99.8
Issued shares (m)	538
Market capitalisation	USD173.2B

Major shareholders:

T.Rowe Price Associates	8.4%
Gang Ye	8.1%
Sands Capital Management	6.7%

Price Performance



	-1M	-3M	-12M
Absolute (%)	9	19	132
Relative to index (%)	9	19	76

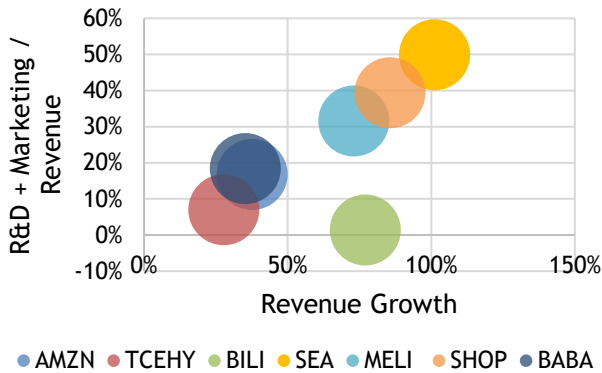
Source: FactSet

ESG@MKE

Value Proposition

- Sea is a Singapore-founded internet company with businesses in digital entertainment, e-commerce, and digital financial services.
- Sea is a beneficiary of accelerated digitisation in a post-Covid-19 landscape (e.g. increased usage and stickiness of e-commerce and digital payments).
- Sea believes in prioritising user acquisition and retention through aggressive marketing and providing compelling product proposition, so that it can maximise monetisation later on.
- Sea's strength is also in its ability to adapt for local preferences, which helps it excel in regions with heterogeneous cultures such as in Southeast Asia.
- We believe that Sea has a strong competitive advantage due to the network effects of its products - which are already leaders in their respective verticals.

Sea is among the fastest growing tech companies

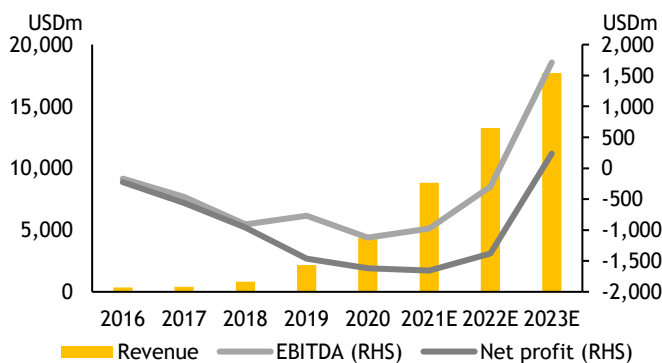


Source: Company

Financial Metrics

- We forecast FY20-23E revenue CAGR of 59.4%, driven by broad based strength.
- We also expect for Sea to turn profitable in FY23E on both EBITDA and net profit levels.
- We expect Sea to continue being in net cash position through FY23E, and for expansion needs to be funded by the digital entertainment business.

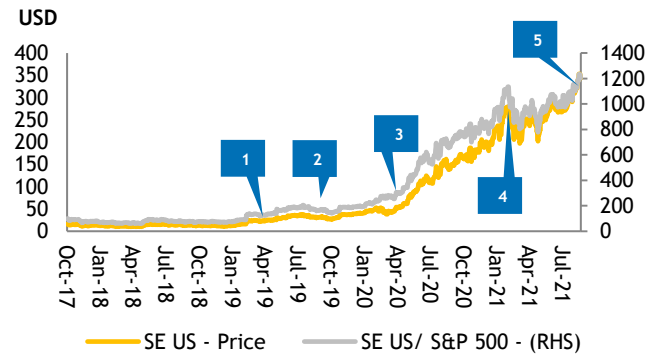
Revenue, EBITDA and net profit projections



Source: Company

Price Drivers

Historical share price trend



Source: Company, Maybank Kim Eng

- Strong 4Q18 and 1Q19 results on continual success of Free Fire
- 2Q19 loss widened despite results beat
- Sea was beneficiary of Covid-19, and share price rallied alongside e-commerce peers.
- Global tech sell-off as a result of interest rate rising fears
- Stronger than expected 2Q21 results, driven by Garena and Shopee, and company raising guidance

Swing Factors

Upside

- Stronger than expected user growth (across all businesses)
- Stronger than expected GMV/TPV growth for e-commerce/ digital financial services.
- Stronger than anticipated monetisation rates across its businesses

Downside

- If investors are impatient with any delay in Sea's profitability turnaround.
- Slowing user growth metrics, especially if this is due to increasing competition across Sea's offerings.
- Signs of Free Fire losing market share, especially if Garena remains heavily reliant on Free Fire to drive revenue growth

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Risk Rating & Score ¹	NA
Score Momentum ²	NA
Last Updated	NA
Controversy Score ³	NA

Business Model & Industry Issues

- As an internet business, we believe social issues is the most relevant, followed by governance and then environmental.
- In the e-commerce business, driving social good (e.g. providing and teaching merchants how to use services) is integral to sustainably grow the platform and to retain merchants while monetising them. For instance, in Indonesia, 57% of MSMEs reported that they generated higher profits on Shopee than on other marketplaces.
- We believe the key issue for Garena are i) addiction and ii) compliance to local laws. For instance, Bangladesh is reportedly trying to ban Free Fire (alongside other addictive apps like PUBG and Tik Tok). Garena's response to appease authorities is important.
- The financial sector is also a highly regulated one. In our view SeaMoney's growth will be in part influenced by not just adherence to local laws, but how SeaMoney advances government agendas (e.g. facilitate roll-out of financial assistance in Malaysia and regulatory support for digital banking initiatives in ASEAN).
- Data security is also a critical ESG factor. Sea has employed various security measures to ensure this. (e.g. encryption of sensitive data, monitoring for unauthorized access etc).

Material E issues

- Aside the increased use of packaging materials associated with e-commerce as compared to traditional commerce, we do not see much environmental issues as the remaining businesses are digital based (i.e. gaming and digital financial services)
- We believe carbon emissions via the servers that Sea is also a key environmental footprint, although not much has been discussed in Sea's sustainability report pertaining environmental factors.

Material S issues

- Sea Limited aims to build highly diverse teams within the company.
- Of Sea's >30,000 global workforce, 46% are females. Furthermore, 46% of the middle to senior management positions are held by females. SEA also boast a diverse culture of over 50 different nationalities in their company.
- Sea strongly believes in hiring and grooming local talent, and is one of the largest employers of fresh graduates across Southeast Asia.
- In 2020, Sea conducted more than 5,000 training sessions for their employees.
- During the Covid-19 pandemic, Shopee provided financial support and relief to SMEs by easing operational costs and attracting new customers. Shopee also provided the SMEs with online courses to help the SMEs to scale and succeed their business in the long run. Furthermore, SEA Limited committed more than USD 35m worth of COVID-19 Seller Support Packages across their markets, and provided monetary donation of more than USGD 510,000.

Key G metrics and issues

- The board consist of 6 members. Out of which, 3 are non-executive.
- Chairman and Group Chief Executive Officer, Forrest Li owns 25.1% of the total Class A and Class B Ordinary Shares, while entities Tencent, Blue Dolphin Venture Inc and T. Rowe Price Associates, Inc owns 22.9%, 8.8% and 6.2% respectively.
- From a data security standpoint, Sea is committed in ensuring that the processing of personal data of consumers, employers and other stakeholders are carried out lawfully. Sea states that it uses its data collected to improve products to better serve its communities.
- Given a large part of Sea's competitive advantage is derived from the network effects from its large user base across multiple markets, compliance with laws is of utmost importance. Further, we believe complementing its growth strategies with government agenda.

¹**Risk Rating & Score** - derived by Sustainalytics and assesses the company's exposure to unmanaged ESG risks. Scores range between 0 - 50 in order of increasing severity with low/high scores & ratings representing negligible/significant risk to the company's enterprise value, respectively, from ESG-driven financial impacts. ²**Score Momentum** - indicates changes to the company's score since the last update - a **negative** integer indicates a company's improving risk score; a **positive** integer indicates a deterioration. ³**Controversy Score** - reported periodically by Sustainalytics in the event of material ESG-related incident(s), with the impact severity scores of these events ranging from Category 0-5 (0 - no reports; 1 - negligible risks; ...; 5 - poses serious risks & indicative of potential structural deficiencies at the company).

1. Investment thesis

1.1 Southeast Asian super-app in the making

Sea comprises three core businesses - digital entertainment (Garena), e-commerce (Shopee), and digital financial services (SeaMoney). We see Sea as a prime proxy to digitisation in GSEA, premised upon i) Shopee being the top e-commerce app in the region, with growth momentum accelerated by Covid-19; ii) SeaMoney's growth opportunities - from the conversion of captive Shopee users, further entrenched as SeaMoney expands its touchpoints, with these being funded by iii) a still sticky Free Fire franchise.

In our view, Sea's success primarily stems from i) willingness to invest in long-term growth opportunities; ii) successful strategies in user acquisition and retention - which have paved the way for monetisation and should continue to do so; and iii) the resulting network effects of the ecosystems it builds.

We forecast FY21-23E revenue CAGR of 59.4% to USD17.71b, driven by the following segmental revenue CAGR rates: i) digital entertainment: 38.1%; ii) e-commerce: 75.3%, and iii) digital financial services: 118%. In the same timeframe, we expect sales and marketing expenses, plus R&D to see a 33% CAGR (FY20: 50% of revenue; FY23E: 29%). We anticipate Sea to turn profitable in FY23E with profit of USD236m (FY20 loss: USD1.62b), on the back of economies of scale. Profitability milestone could be delayed if we have underestimated the investments that Sea will put in to grow e-commerce and digital financial services prospects.

Garena is highly cash generative (2020 adj EBITDA margin: 62%). In turn, a large part of Garena's performance is attributable to Free Fire, a battle royale game first launched in 2017. While most games that old would begin to lose their appeal after a few years, Free Fire's momentum appears ongoing, as its popularity has now gone beyond Sea's traditional markets of Southeast Asia to Latin America, India, and now even the US. Free Fire's winning formula is intuitive, being a combination of i) localisation of content to relate to domestic users in each geography (e.g. app is in local language, local celebrities are playable as in-game characters); and ii) easier accessibility for its target audience, as Free Fire's technical minimum requirements are much less onerous than other battle royale games (see Fig 20). Post-Covid-19 lockdowns, Sea observes that while users generally spend less time on Free Fire than during lockdowns, this metric is still significantly higher than during pre-Covid-19 lockdowns. Sea remains optimistic that Free Fire can become a major IP franchise, and also aims to position Free Fire as a online place for users to hang out, e.g. by socialising or for listening to music. As at 2Q21, Garena had 725.2m quarterly active users (QAU), representing a CQGR of 16.2% since 1Q17. In 2Q21, Free Fire crossed the 1b cumulative download mark on Google Playstore, and is the first ever mobile battle royale game to achieve this.

Meanwhile, Shopee is the top e-commerce platform in Southeast Asia and Taiwan, based on monthly active users, total time in app (Android), and downloads. Shopee's success has been driven by i) strong localisation initiatives to cater for domestic market (e.g. understanding preferences, celebrity endorsements, etc.), ii) robust marketing campaigns (monthly sales festivals, e.g. 1.1, 2.2, ... 12.12), iii) social engagement and gamification features found in its apps, and most importantly iv) user-friendliness of the app interface and overall fulfilment service. Shopee has now ventured into Latin America with the launch of Brazil (4Q19) and Mexico (1Q21). In Brazil, Shopee was the top shopping app by downloads

GSEA refers to Greater Southeast Asia, comprising Sea's traditional markets of Taiwan, Singapore, Malaysia, Indonesia, Vietnam, Philippines and Thailand.

In 2Q21, Free Fire was the top grossing game in:

- i) Southeast Asia & Latin America (8th consecutive quarter)***
- ii) India (3rd consecutive quarter)***
- iii) United states (2nd consecutive quarter)***

and total time spent in app, according to App Annie in 2Q21. The app ranked second by monthly active users in the quarter. Shopee's GMV have enjoyed a CQGR of 20.3% during 1Q17-2Q21 to reach USD15b, while its take rate has expanded from nil in 1Q17 to hit 7.7% in 2Q21. Management believes that with further monetisation initiatives, take rates could reach high single digits or even low double digits in the long run. In 2Q21, Malaysia became the second market after Taiwan to achieve positive adjusted EBITDA before allocation of headquarters' common expenses. During the quarter, overall e-commerce adjusted EBITDA loss per order narrowed by 20% YoY to USD0.41. According to Reuters, Shopee is also preparing to launch in Poland, its first foray into Europe.

On the other hand, we believe that SeaMoney is still in its early stages of growth. As the digital financial services landscape across ASEAN is very fragmented, we believe SeaMoney's long term success will ultimately be driven by user acquisition, both from the perspective of merchants and end-users. As we expect Sea to continue its aggressive expansion mode, in particular for Shopee and SeaMoney, we anticipate sales, marketing and R&D expenses to remain elevated in coming years.

From a balance sheet perspective, we are projecting Sea to not just maintain a net cash position, but for cash and cash equivalents to grow from USD7b to USD14.7b in FY23E, as largely due to cash generation from the digital entertainment business, as well as from the c.USD6b equity and convertible debt fund raising announced on 10-Sep-21.

1.2 SOTP derived TP of USD378

Our TP of USD378 is derived from a sum of the parts of the individual businesses. We value the digital entertainment business at USD112/ADS, based on 27x FY22E P/E, at a slight premium to peers at 21.9x on account on faster earnings growth. Meanwhile, we ascribe a valuation of USD227/ADS for the e-commerce business, which is based on 1.4x FY22E P/GMV (higher than global peers and relatively in line with Mercado Libre to factor in upside potential from new markets). For digital financial services, we value the business based on 0.4x FY22E P/GMV, resulting in a valuation of USD23 per ADS.

1.3 Risks

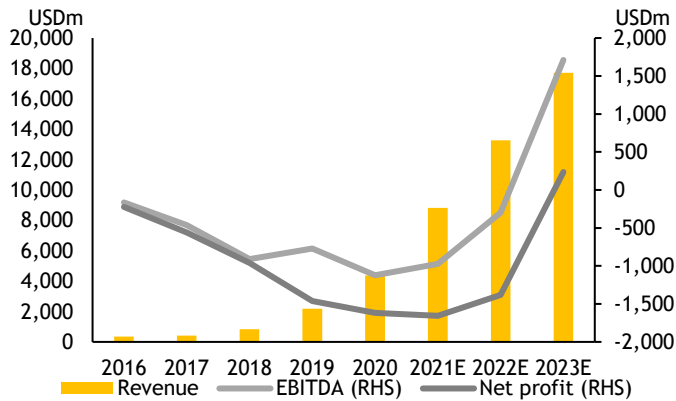
We believe the largest risk to Sea is revenue concentration. Sea's gross profitability is largely driven by Garena, of which Free Fire contributes a significant portion of segment revenue. In the e-commerce business, Sea disclosed that top two markets account for a sizeable number of orders and GMV. While we note strong growth momentum and stickiness in Free Fire and Shopee's core markets, we believe the Achilles heel that could unwind these dynamics are decline in popularity of these offerings and/or regulatory risk. Sea faces strong competition in all the verticals and geographies that it participates in, and a loss in appeal and/or accessibility of its products can be easily replaced by competitors' thereby resulting in market share loss of Sea's offerings.

Take rate is calculated as e-commerce revenue divided by GMV.

In turn, GMV, or gross merchandise value is the value of products sold on an e-commerce platform, in this case, Shopee.

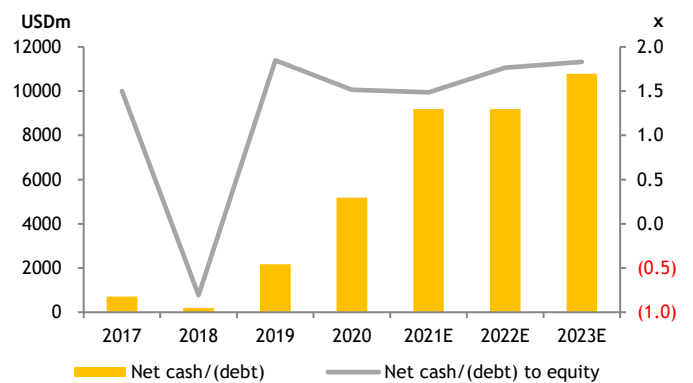
2. Focus charts

Fig 1: Forecasting FY20-23E revenue CAGR of 59.4%



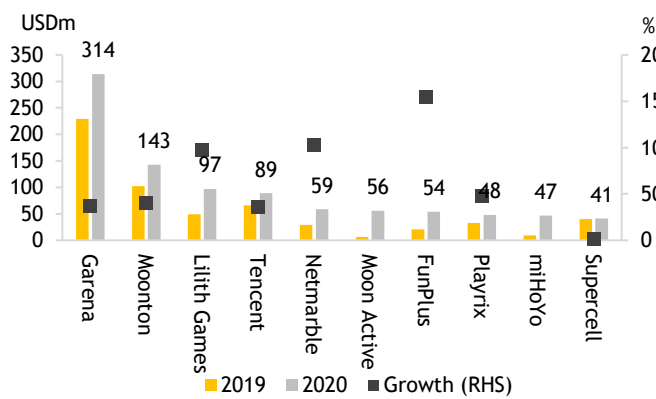
Source: Company, Maybank Kim Eng

Fig 2: Balance sheet is robust to fund further e-commerce and digital financial investments expansion



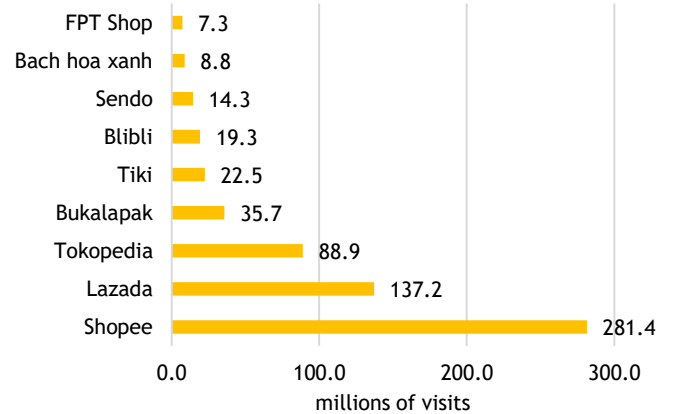
Source: Company, Maybank Kim Eng

Fig 3: Garena remained the top publisher by revenue in Southeast Asia in 2020



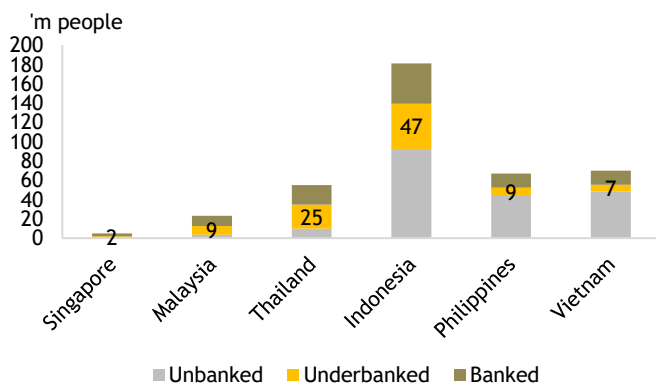
Source: Sensor Tower

Fig 4: Shopee had the most number of visits in 2020



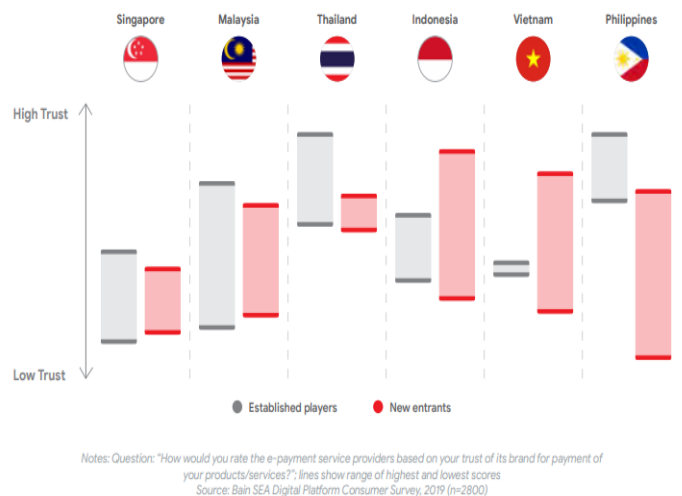
Source: iPrice, SimilarWeb, Appsflyer

Fig 5: The underbanked in Indonesia and Vietnam is c.55% of Southeast Asia's underbanked population of 98m. VN was Sea's first DFS market. Indonesia is a core market for Free Fire and Shopee.



Source: Sensor Tower

Fig 6: In Indonesia and Vietnam, new entrants in financial services are gaining more trust than established incumbents.



Source: iPrice, SimilarWeb, Appsflyer

3. Corporate overview

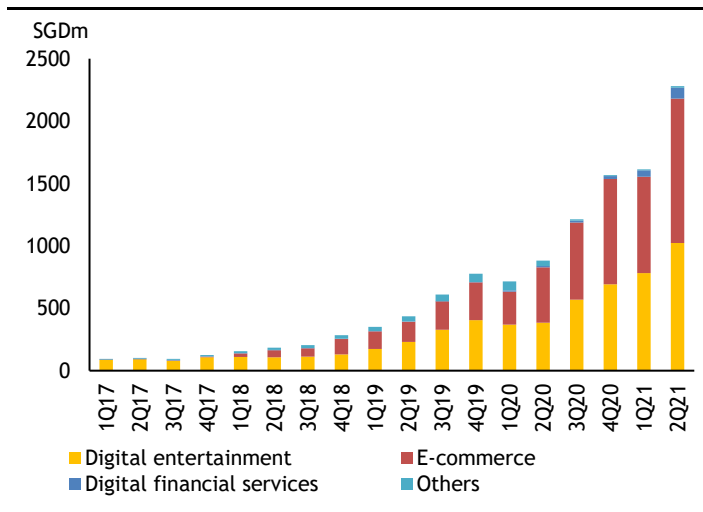
Sea is a Singapore-founded global consumer internet company and was founded as Garena Interactive Holding in 2009. In 2017, the company changed its name to Sea.

Sea comprises three core businesses:

- **Garena (digital entertainment):** Focuses on offering mobile and PC games and developing mobile games for the global market. The digital entertainment business was founded in 2009, and by 2020, Garena has local game operations across GSEA and Latin America. Its most popular game is Free Fire which is available in over 130 countries globally.
- **Shopee (ecommerce platform):** The largest e-commerce platform regionally in 2020, according to Frost & Sullivan. Shopee was launched across GSEA in 2015, and subsequently in Brazil (4Q19), and Mexico (1Q21).
- **Sea Money (digital financial services):** The business was launched in both Vietnam and Thailand in 2014. In 4Q19, Sea introduced SeaMoney as the overall brand for the digital financial services business.

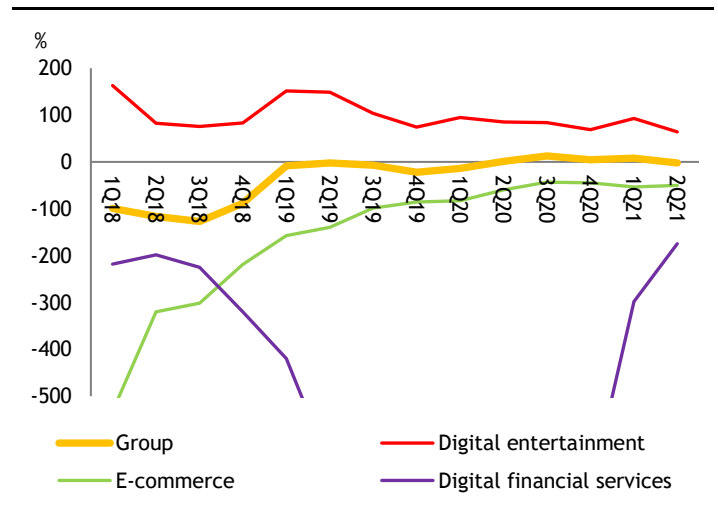
Sea completed its initial public offering and listed its ADS on the NYSE in Oct-17. The profiles of the management team are shown in Appendix I. Meanwhile, further details on the business model and growth outlook is discussed in the next chapter “Overview by segment”.

Fig 7: Quarterly revenue by segment



Source: Company

Fig 8: Adjusted EBITDA margin by segment



Source: Company

4. Overview by segment

4.1 Garena - Free Fire is sticky and becoming a major IP franchise

Overview

Garena is a game developer and publisher, and is a leader of eSports in Southeast Asia, Taiwan and Brazil. Its most popular game is Free Fire, which is Garena’s first fully in-house developed game, launched in Dec-17. Free Fire belongs to the battle-royale genre.

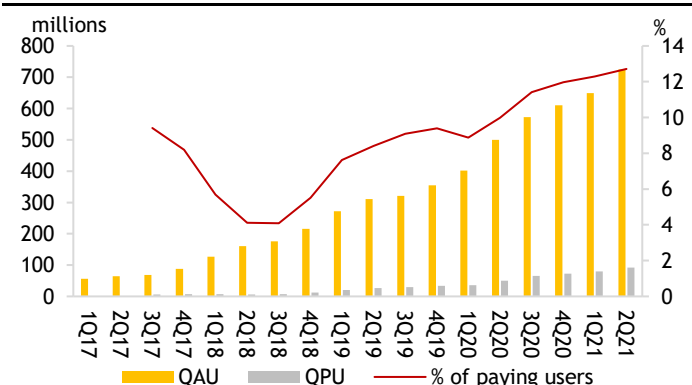
Aside developing games such as Free Fire, Garena also exclusively licences and publishes games by third parties. Garena’s games cover some of the most popular genres, such as battle royale (e.g. Free Fire), multiplayer online battle arenas (MOBA; Arena of Valor, League of Legends), action role playing games (action RPGs), massively multiplayer online role-playing games (MMORPGs), racing and also sports games.

Business model

Garena’s monetisation model is primarily a “freemium” based one, i.e. users are able to download and play fully functional games. Garena generates revenue by selling in-game items, including virtual items such as digital representation of functional or decorative items, as well as season passes. The freemium model is powerful because it allows for quick scalability of users, in turn driving network effects. Garena leverages this further by providing localised content to boost user engagement. Sea observes that paying users tend to also be stickier, as these users have invested into the game. This in turn extends the longevity and relevance of the game.

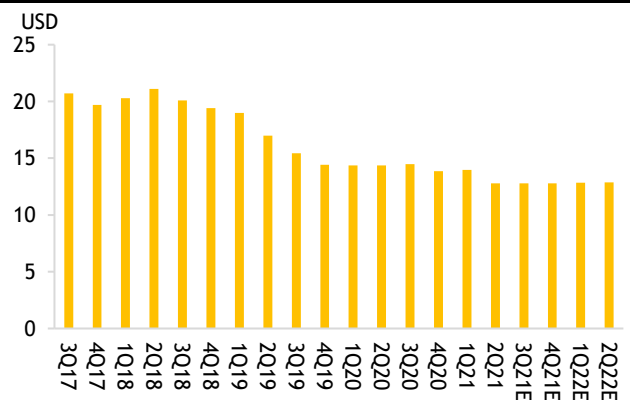
Sea believes that the larger its active user base is, the greater the likelihood of users making in-game purchases. Fig 9 shows historical quarterly average users and quarterly paying users, underscoring Garena’s ability to grow user base while also deepening monetisation.

Fig 9: % of paying users tend to increase with rising user base as well.



Source: Company

Fig 10: Historical average revenue per paying user (ARPPU)



Source: Company

Growth initiatives and strategy

Garena believes that some of its key success factors include i) social features - e.g. live streaming of gameplay, user chat and online forums, and ii) localisation of content. To drive social engagement, Garena organises hundreds of esports events annually and operate the largest mobile-game professional league in Southeast Asia, Taiwan and Brazil.

Garena localises licenced games to adapt to each market, by working with developers to translate content to local languages, revise game design to suit local preferences, and develop exclusive content to boost the attractiveness of games for local audiences. Examples of exclusive content includes DJ Alok from Brazil, Bollywood Superstar Hrithik Roshan, Actor Joe Taslim from Indonesia, Actor and Martial Artist Tony Jaa from Thailand and Footballer Cristiano Ronaldo from Portugal.

Fig 11: Cristiano Ronaldo featured as a character in Free Fire



Source: [Topgamehere.blogspot.com](https://topgamehere.blogspot.com)

Fig 12: Cristiano Ronaldo in-game gameplay



Source: [Sportskeeda](https://sportskeeda.com)

Another key strategy to keep extend the franchise and longevity of Free Fire is by expanding in-game content and features. Sea observes that an increasing number of gamers spend time on the Free Fire platform not just for core battle-royale gameplay, but also to enjoy other features. In 2Q21, Sea launched Pet Rumble within Free Fire. Pet Rumble is a social deduction game mode where players can use their in-game virtual pets to take part in a game of cooperation and infiltration. Many of the new game modes are designed to be highlight social to promote interaction within the Free Fire community.

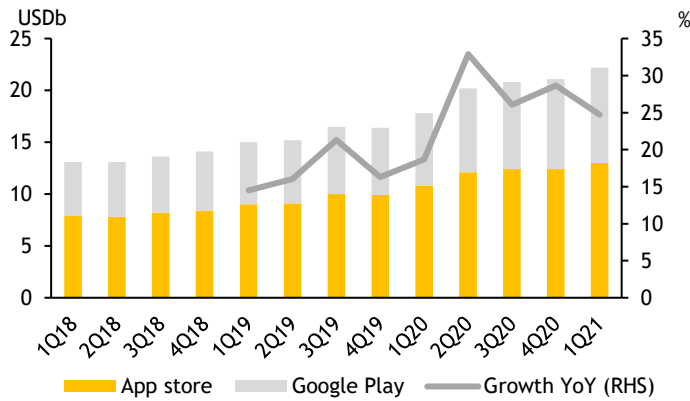
Sea is backed by Tencent (22.9% stake as at end of FY20). In late 2018, Sea and Tencent entered into a 5 year agreement where Tencent will Grant Sea a right of first refusal to publish Tecent's mobile and PC games in Indonesia, Taiwan, Thailand, the Philippines, Malaysia and Singapore.

In Jan-20, Garena acquired a Canadian-based games development studio Phoenix Labs. This is expected to further bolster Garena's in-house content creation capabilities. Garena believes its strength is in being able to cater to highly diversified markets globally, and this is further solidified through big data that it collects.

Market outlook

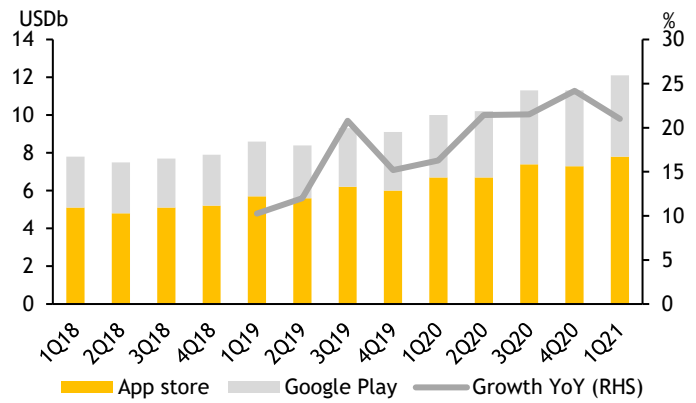
The mobile gaming market has seen growth accelerated since Covid-19. Globally and across Asia, mobile gaming revenues continue to be higher both YoY and sequentially in 1Q21, indicating that despite exiting lockdowns, users are still engaged with the games they play (see Fig 13 and 14).

Fig 13: Global mobile gaming revenue has accelerated post-Covid-19 lockdowns...



Source: Sensor Tower

Fig 14: ... Similar observations can be made in Asia.

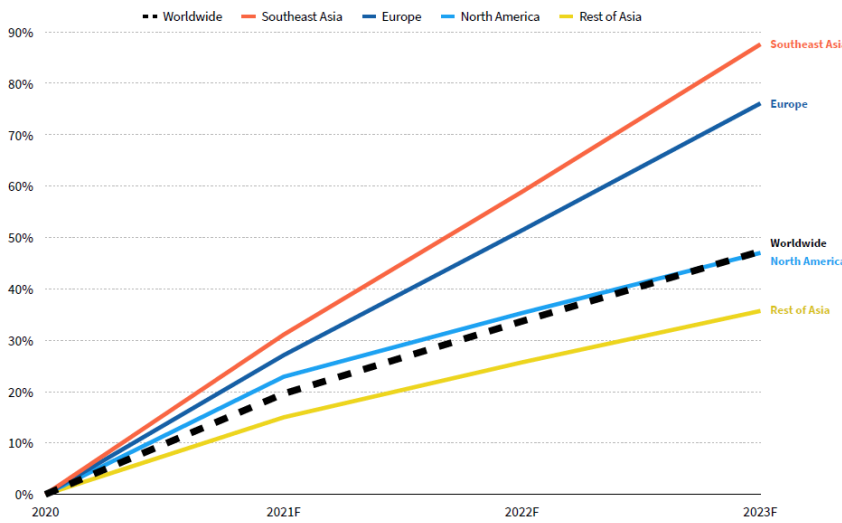


Source: Sensor Tower

According to Sensor Tower, Southeast Asia’s mobile gaming revenue is expected to be 88% higher by 2023 as compared to 2020, making it the fastest growing region globally (see Fig 15).

Fig 15: Southeast Asia boasts the highest growth rate for mobile gaming revenue over 2020-23.

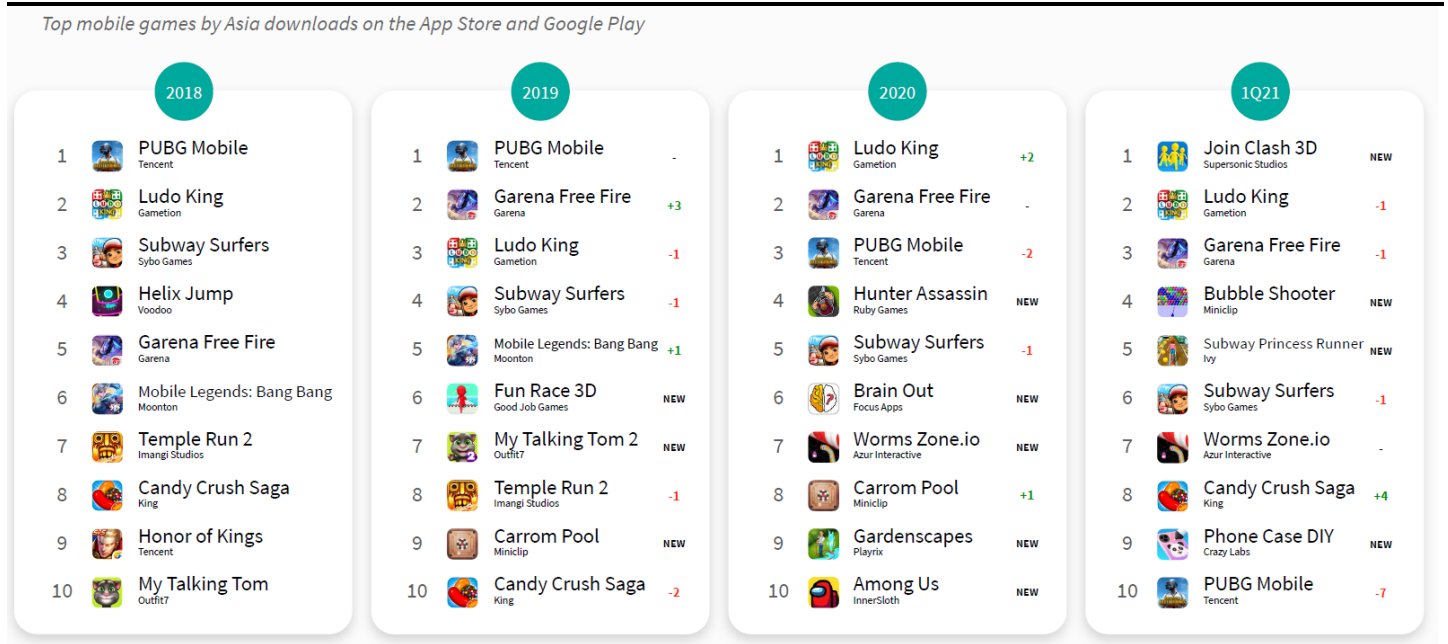
Revenue growth by region, App Store and Google Play



Source: Sensor Tower

From the perspective of game genres, battle royale games like Free Fire and PUBG were consistently ranked within top 10 by downloads. According to Sensor Tower, Free Fire downloads began to surpass PUBG in 2020, and this lead has widened in 1Q21 (Fig 16).

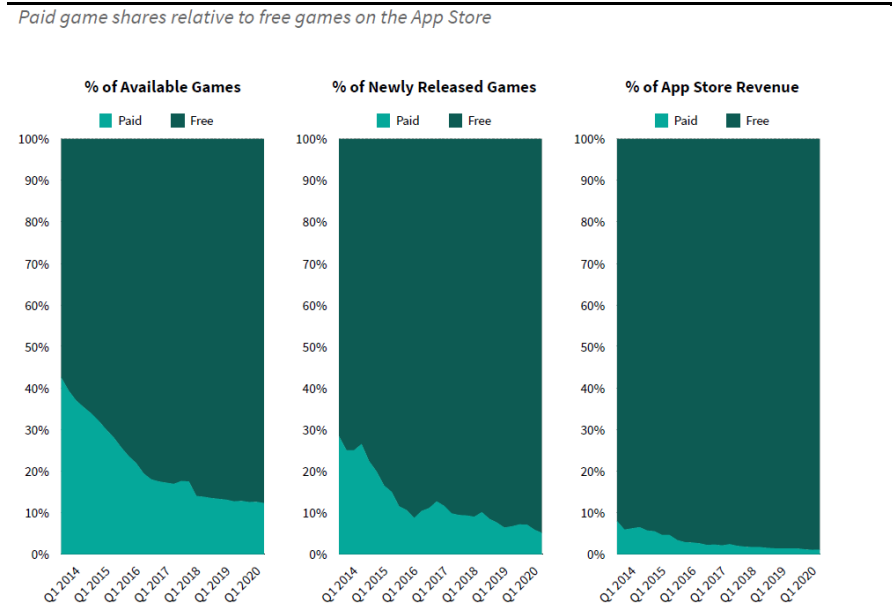
Fig 16: Top mobile games in Asia by downloads. Battle Royale games like Free Fire and PUBG consistently rank in top 10



Source: Sensor Tower

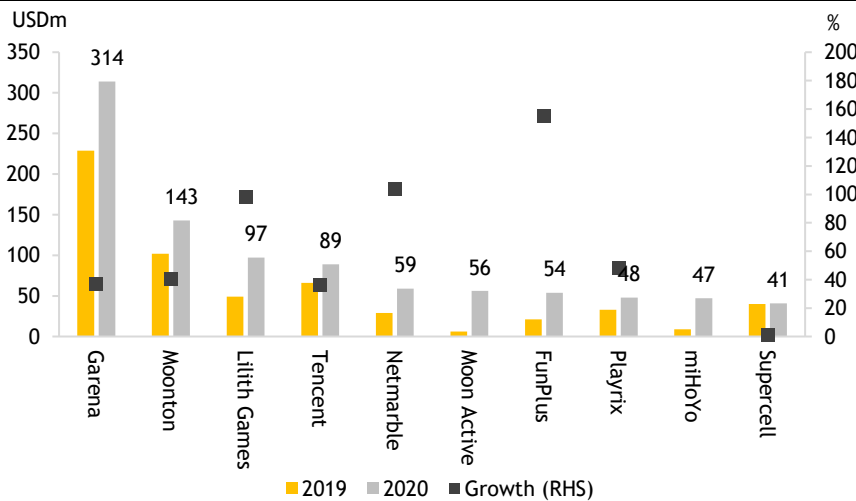
Since 2014, the freemium model has been gaining share in favour of paid games. By 4Q20, only 5% of newly released games were paid games, and the share of paid games on the App Store had fallen to 12% (1Q14: 43%), according to Sensor Tower (Fig 17). In Southeast Asia, Garena remained the top publisher by revenue in 2020, raking in USD314m in 2020 (+37% YoY), more than double that of the next closest publisher Moonton (Fig 18).

Fig 17: Freemium games continue to be more popular than paid games based on availability, new releases and revenues.



Source: Sensor Tower

Fig 18: Garena was the top publisher in Southeast Asia by revenue



Source: Sensor Tower

Success of Free Fire

Sea sees Free Fire as being early in its life cycle. Based on the increasing traction globally, Sea views Free Fire increasingly as a platform and major IP franchise.

Free Fire’s top markets are primarily in emerging markets. According to Sea referencing data from App Annie (app analytics company), Free Fire remains the highest grossing mobile game in Latin America, Southeast Asia and India as at 2Q21. Further, this is the 8th consecutive quarter that Free Fire has occupied the top spot in Southeast Asia, and the third quarter for India. Meanwhile, according to Sensor Tower, Garena was within top 10 of mobile games by worldwide revenue for Jul-21.

Fig 19: Top Mobile games by worldwide revenue (Jul-2021)

Overall Revenue			App Store Revenue			Google Play Revenue		
1	PUBG Mobile Tencent	▲	1	PUBG Mobile Tencent	▲	1	Coin Master Moon Active	▲
2	Honor of Kings Tencent	▼	2	Honor of Kings Tencent	▼	2	Pokémon GO Niantic	▲
3	Genshin Impact miHoYo	▲	3	Genshin Impact miHoYo	▲	3	Garena Free Fire Garena	▼
4	Pokémon GO Niantic	▲	4	Roblox Roblox	▼	4	Genshin Impact miHoYo	▲
5	Roblox Roblox	▼	5	Pokémon GO Niantic	▲	5	Candy Crush Saga King	▼
6	Coin Master Moon Active	-	6	Three Kingdoms Tactics Alibaba	▲	6	Odin: Valhalla Rising Kakao Games	★
7	Candy Crush Saga King	▼	7	Fantasy Westward NetEase	▼	7	PUBG Mobile Tencent	-
8	Uma Musume Pretty Derby CyberAgent	▼	8	Uma Musume Pretty Derby CyberAgent	▼	8	Lineage M NCSOFT	▼
9	Garena Free Fire Garena	▼	9	Candy Crush Saga King	▲	9	DBZ Dokkan Battle Bandai Namco	▲
10	Three Kingdoms Tactics Alibaba	▲	10	Rise of Kingdoms Lilith Games	-	10	Roblox Roblox	▼

Source: Sensor Tower

Aside content localisation and user engagement through e-sports events, we believe Free Fire’s success is also due to the following:

- Playable on low-to-mid tier smartphones - This makes the game accessible to anyone with a smartphone - in particular, users from developing regions (Fig 20).
- Quicker matches - Most of Free Fire’s matches lasts around 10-20 minutes and consists only 50 players. This allows for quicker gameplay

as compared to other battle royale games which last around 30 minutes with 100 users.

Fig 20: Free Fire's minimum requirements are the least onerous among popular battle-royale games, widening its audience to players in emerging countries

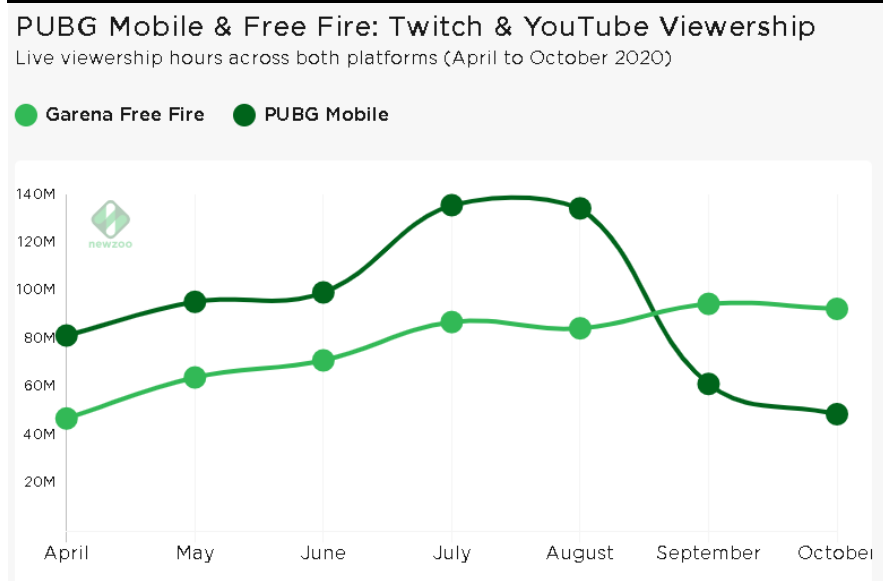
	Free Fire	PUBG	COD: Mobile	Fortnite	Battleland Royales
Android (Min Requirement)	OS: Android 4.4 CPU: Dual Core 1.2GHz RAM:1 GB Storage: 1.5GB+	OS: Android 5.1.1 CPU: Snapdragon 425 (1.4GHz) RAM:2 GB Storage: 2 GB+	OS: Android 5.1 CPU: Dual Core CPU 1.2Ghz RAM:2 GB Storage: 3 GB+	OS: Android 8.0 CPU: 64 - bit Android on an ARM 64 processor RAM:4 GB Storage:	OS: 4.1.0 CPU: Dual Core 1.2GHz RAM:1 GB Storage: 1.5GB
IOS (Min Requirement)	OS: IOS 9 CPU: Iphone 5s RAM: 1GB Storage: 1.5GB+	OS: IOS 9 CPU: Iphone 5s RAM: 1GB Storage: 2GB+	OS: IOS 9 CPU: Iphone SE RAM: 2 GB Storage: 2 GB	Not Available in the Apple Store	OS: IOS 9 CPU: RAM: 1 GB Storage: 1 GB
Android (Good Performance)	OS: Android 7 CPU: Dual Core 1.8GHz RAM:3 GB Storage: 3 GB+	OS: Android 5.1.1 CPU: Snapdragon 636 (1.8GHz) RAM:4 GB Storage: 2 GB+			OS: Android 6 CPU: Snapdragon 625 (2 GHz) RAM:2 GB Storage: 1.5
IOS (Good Performance)	OS: IOS 11+ CPU: Iphone 7 RAM: 3GB Storage: 3GB+	OS: IOS 9 CPU: Iphone 7 RAM: 2GB+ Storage: 4GB+			

Source: Various sources

Despite many countries exiting strict lockdown, Sea observes that time spent for daily active user on Free Fire remains much higher than pre-pandemic levels. Overall, Sea also sees that paying user ratio among older cohorts (i.e. those playing since the early days of the game) are still rising, and new cohorts are exhibiting higher and faster growing paying user ratio.

In recent quarters, India has been a strong growth market for Free Fire. A key catalyst for this was due to the ban of competitor app PUBG (published by Chinese company Tencent) amid rising geopolitical tensions. According to Newzoo, Free Fire's viewership on Twitch and YouTube have rapidly expanded and surpassed PUBG's in 3Q20. To maintain Free Fire's momentum, Garena's 2021 esports roadmap for Free Fire includes four tournaments across two pro circuits, at a cadence of one per quarter. In our view, a risk to Free Fire's growth in India is the relaunch of a rebranded version of PUBG, known as Battlegrounds India Mobile (developed by India-based Kafton), launched on 18 Jun-21. This is because the relaunched game could wrest back original fans of PUBG. In 1Q21 earnings briefing, Sea continues to see India as a promising market with a "very long runway". At writing, Sea has yet to observe Battlegrounds Mobile India curtail the growth trajectory of Free Fire in India.

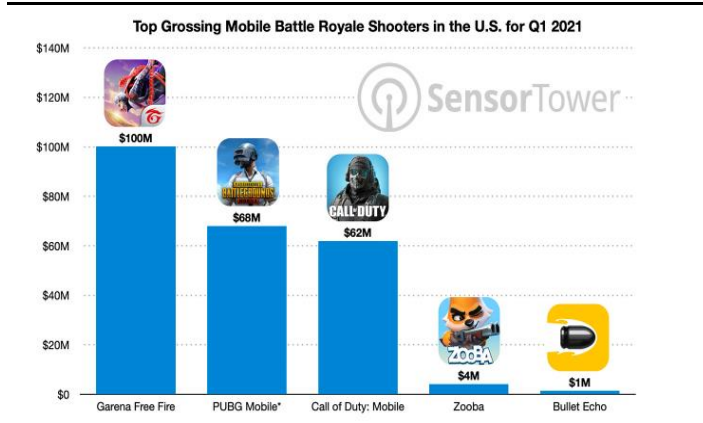
Fig 21: Viewership of Free Fire rapidly surpassed PUBG following ban of latter in India.



Source: Newzoo

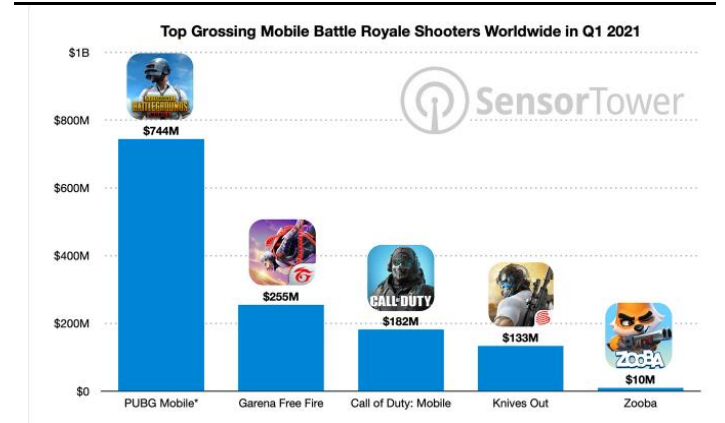
In the US, Free Fire was the highest grossing mobile battle royale game for two consecutive quarters in the US and was the second highest grossing mobile game on Google Play in 2Q21, according to App Annie. According to Sensor Tower, took over PUBG’s position as the top grossing mobile battle royale game in the country in 1Q21.

Fig 22: Free Fire has taken over PUBG as the top grossing battle royale game in the US in 1Q21



Source: Sensor Tower

Fig 23: Free Fire is 2nd highest grossing battle royale game globally in 1Q21



Source: Sensor Tower

Launching Free Fire MAX to widen audience base

In late Aug-21, Free Fire MAX became available for pre-registration on Google Play Store. Free Fire MAX is an enhanced version of the original Free Fire with advanced effects, animations, and graphics, which is widely expected to be launched in Oct-21. As the gameplay of Free Fire and Free Fire MAX are identical and players of both games are able to play each other, we believe Free Fire MAX is to maximize the audience base of the Free Fire franchise, and potentially to compete more directly with PUBG. We see this as a sensible move to further solidify the network effects of Free Fire, which has in 2Q21 crossed one billion cumulative downloads globally on Google Play. Sea believes Free Fire is the first mobile battle royale game to have achieved such a feat.

Other games/ pipeline

Other games that Garena has published include Arena of Valor, Call of Duty Mobile, Speed Drifter, League of Legends, and most recently Moonlight Blade Mobile.

Moonlight Blade Mobile is a Wuxia-themed massively multiplayer online role-playing (MMORPG) game that was launched in Jun-21. It is currently available in Taiwan.

Arena of Valor is a 5v5 multiplayer online battle arena (MOBA) mobile game that was designed by Tencent Games. In 2017, Garena Launched Arena of Valor in Southeast Asia. As at May 2021, Arena of Valor has 7.41 million MAU in Southeast Asia. Arena of Valor is also ranked 16 in Southeast Asia for mobile games with the most MAU.

Call of Duty Mobile is a free to play shooter mobile game that was developed by TiMi Studios (Tencent Subsidiary). In 2019, Garena launched Call of Duty Mobile in Southeast Asia, Hong Kong and Taiwan. As at May 2021, Call of Duty Mobile has 3.2 million MAU in Southeast Asia. Call of Duty Mobile is also ranked 82 in Southeast Asia for mobile games with the most MAU.

Speed Drifter is a multiplayer online kart racing mobile game developed by TiMi Studios. In 2011, Garena launched Speed Drifter in Southeast Asia. As at May 2021, Speed Drifter has 1.64 million MAU worldwide.

League of Legends is currently the only PC game in Garena's website. League of Legends is a multiplayer online battle arena video game that was developed by Riot Games. Garena launched League of Legends in Southeast Asia, Taiwan, Hong Kong and Macau. In May 2021, League of Legends is the 2nd most popular game worldwide (According to NewZoo) with 115 million MAU.

Tencent Game Pipeline

Tencent announced 60 new games in their Annual Games Conference 2021. Fig 24 below illustrates some of the popular games that were announced in the conference.

Fig 24: Tencent game pipeline

Title	Developer	Date
Metal Slug Mobile	Timi Studios (Tencent)	TBC
Handmade Planet	Tencent	Dec-21
Digimon (New Century)	Qixia Interactive Entertainment & Bandai Namco	TBC
One Punch Mobile	Morefun Studio	TBC
The Westward Burning Soul	Kuaishou Echo Game Studio	2022
Crossfire HD	Smilegate	Jun-21
Story of Seasons Mobile	Next Studios (Tencent)	TBC
Mobile Game based on Uncharted Waters IP and Nobunga's Ambition IP	Koei Tamco	TBC
Project: Fighter	More Fun Studio (Tencent)	TBC
CODE: HUA	Lightspeed & Quantum Studio (Tencent)	TBC
Tetris Adventure	Changyou	TBC
Dynasty Warriors: Hegemony	CMGE / TCI Play	Jun-21
Uncharted Waters: Lord of the Sea	Koei Tecmo	TBC
Our Planet	-	TBC
Shin Kaku Gi Kou	Kazuma Kamachi	TBC
Ylands	-	TBC

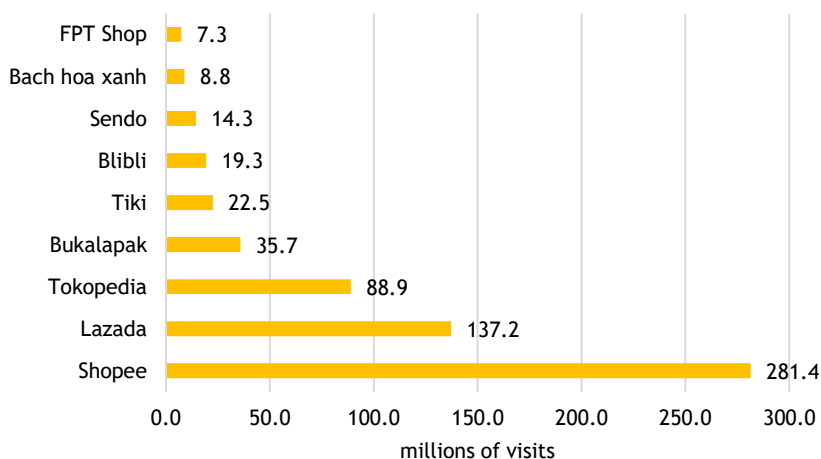
Source: Tencent

4.2 Shopee - Top e-commerce marketplace in ASEAN, driven by mobile first and hyper-localisation strategy

Overview

Shopee is a highly scalable, mobile-first, social-focused B2C e-commerce platform. Shopee was launched in Jun-15 across all seven of its markets in GSEA (Indonesia, Taiwan, Vietnam Thailand, Philippines, Malaysia, and Singapore) and was introduced in Brazil in Oct 2019. According to App Annie, Shopee continued to be the top shopping app across Southeast Asia and Taiwan by average MAU and total time spent on Android in 1Q21. Meanwhile, according to Frost and Sullivan, Shopee was the largest e-commerce platform in GSEA in 2020 by GMV and total orders. Fig 25 shows that Shopee was the e-commerce platform that garnered the highest number of visits in Southeast Asia in 2020.

Fig 25: Shopee garnered the most visits among e-commerce platforms in Southeast Asia (2020).



Source: iPrice, SimilarWeb, Appsflyer

Business model

Sellers on the Shopee platform range from individuals, SMEs, and even large brands. Each seller has a storefront which they list their products, communicate with buyers and complete transactions.

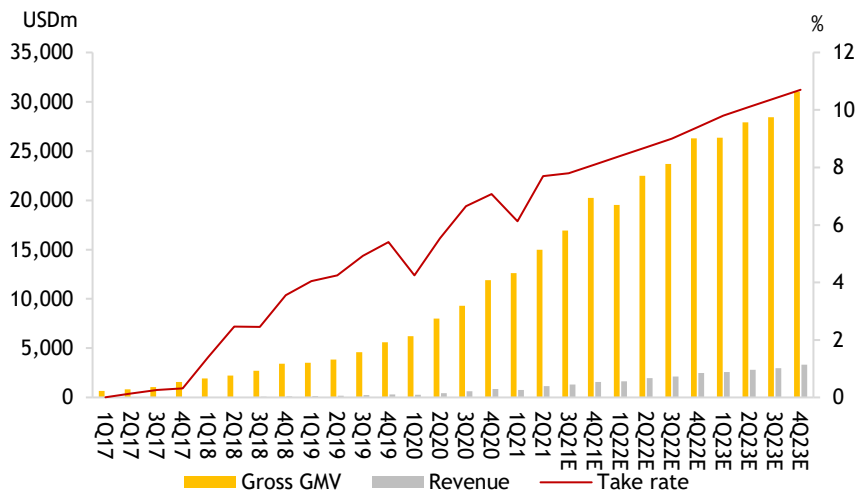
Sea mainly monetizes Shopee through i) advertising services to sellers, ii) transaction-based fees; and iii) value-added services. Shopee also earns revenue from the direct sell on of some products. These products are purchased from manufacturers or other third parties

Shopee's marketplace model allows it to scale rapidly. Aside, Shopee also implements many social and gamification elements which it believes helps drive organic user acquisition, user retention and time spent on the platform. From a product category perspective, Shopee focuses on long-tail, high-margin categories, such as fashion, health and beauty, home and living and baby products. That said, Shopee is also diversifying their range of products.

As the Shopee marketplace is largely 3rd party (3P), Shopee faces minimal inventory risk. However, a portion of Shopee's revenues is also earned through sales of goods that Shopee purchases from manufacturers or 3rd

parties and sells these to users under Shopee's official store to meet buyers demand for such products.

Fig 26: Shopee's GMV and take rate have been gradually increasing. We project this will increase further.



Source: Company, Maybank Kim Eng

Growth initiatives and strategy

The logistics service providers that Shopee cooperates with include the largest and most reliable ones in their markets. This is important given that these markets have terrain that are difficult to navigate or have underdeveloped infrastructure. Shopee also provides last-mile delivery services, Shopee Xpress to complement its current capacity of 3PLs in some of the metro areas of its markets. In certain markets, Shopee has also made strategic investments into local logistics partners to strengthen its logistics services.

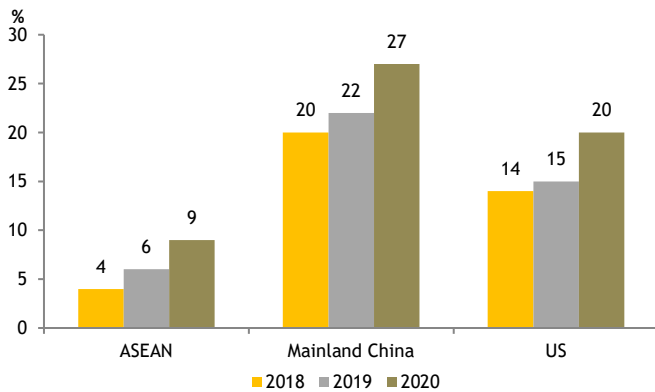
The Shopee platform has a number of innovative social and gamification features, such as "Shopee Coins", "Shopee Live", "Shopee Games" and "Shopee Feed". This is a strategy to enhance user engagement and accelerate user growth. For example, users can win Shopee Coins from making purchases, playing mini-games or even inviting friends to participate. These coins can then be used to offset the cost of purchasing goods from eligible sellers.

One of Shopee's key growth strategies is by incurring the required sales and marketing expenses ahead of its monetisation efforts. As such, we continue to expect sales and marketing expenses to grow in coming years as Shopee expands its presence in existing and new markets. This is further discussed in the Financials section.

Industry growth overview

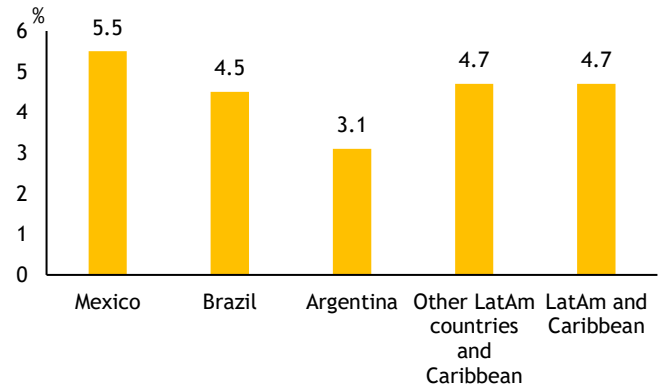
In ASEAN and Latin America, e-commerce growth prospects remain positive. In ASEAN-6, while penetration is already high (ranging from 80% in Singapore to 87% in Indonesia), share of e-commerce sales of total retail sales remains nascent relative to China and the US (Fig 27). Meanwhile, penetration in Brazil/ Latin America and Caribbean were 4.5%/4.7% in 2020 (Fig 28). This compares to more matured markets, such as US, Europe, and China at 27% (1Q20)/53% (2019)/ 25% (2020) respectively, according to Statista and various other sources.

Fig 27: ASEAN e-commerce share of total retail sales is still low compared to China and US



Source: Euromonitor

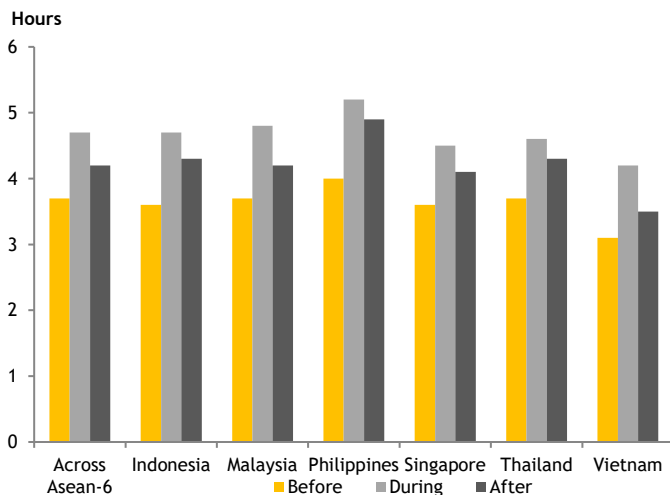
Fig 28: E-commerce penetration in Latin America is still nascent



Source: Statista

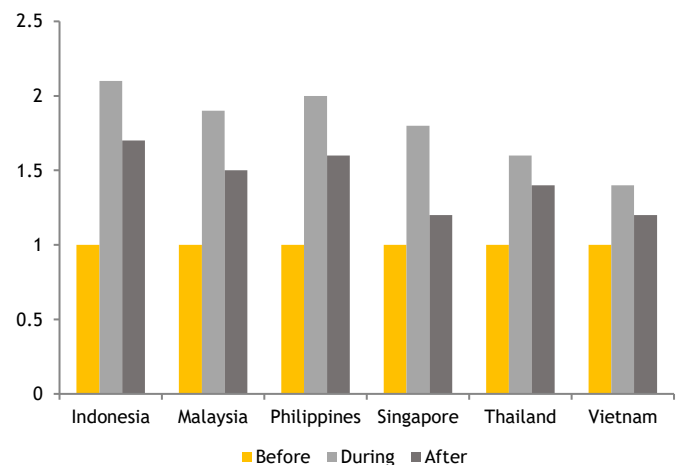
Further, we believe Covid-19 has accelerated the growth potential of e-commerce, as the e-commerce trend may now be perceived as a new normal. Fig 29 and 30 shows that across ASEAN-6, people do not just spend more time online a day post-Covid-19 lockdowns than pre-lockdowns, but also use more e-commerce too.

Fig 29: Number of hours spent online a day, before, during and after Covid-19 lockdowns



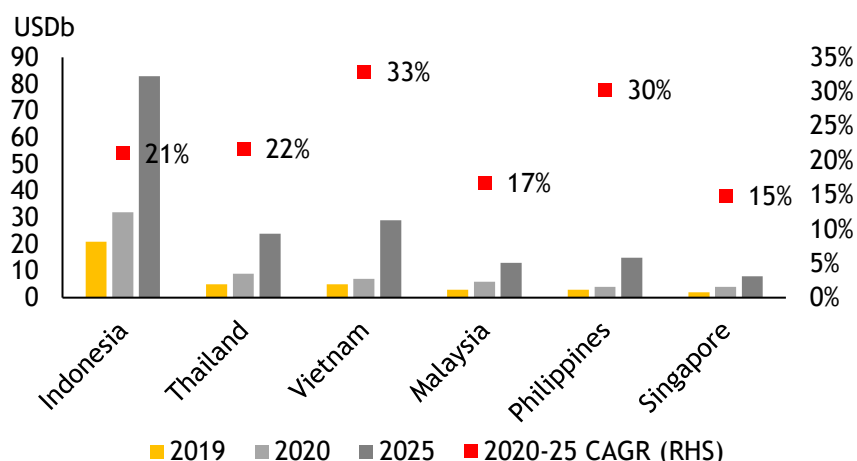
Source: Google Temasek Bain (2020)

Fig 30: Usage of e-commerce before, during and after Covid-19 lockdowns (indexed)



Source: Google Temasek Bain (2020)

From a perspective of GMV, Indonesia is expected to continue to be the most significant market, due to its size (2020: USD32b, 52% of ASEAN-6 e-commerce GMV) and rapid growth rate (2020-2025 CAGR: 21%). That said, growth rates are also expected to remain attractive across other ASEAN markets, at a 2020-25 CAGR of 21-33%, according to Google, Temasek and Bain (see Fig 31).

Fig 31: GMV by ASEAN countries, including 2025 projections and 2019-25 CAGR


Source: Google, Temasek, Bain

Competition

Shopee faces formidable competition in the markets it competes in, in particular Lazada (Singapore, Malaysia, Thailand), Tokopedia and Bukalapak in Indonesia, and MercadoLibre (Latin America).

Despite this, Sea managed to become the top e-commerce platform in Southeast Asia. Fig 32 shows that as at 2Q21, Shopee had a dominant lead in terms of site visits among e-commerce players in Singapore, Malaysia, Thailand, Philippines, and Vietnam. At the same time, it was a close second to Tokopedia in Indonesia.

Fig 32: Monthly web visits of e-commerce sites in 2Q21 (Vietnam: 1Q21). Shopee has a dominant lead in SG, MY, TH, PH, and VN, and is a close second in Indonesia.

Indonesia		Singapore		Malaysia		Thailand		Philippines		Vietnam	
Tokopedia	147,790,000	Shopee	13,596,700	Shopee	53,983,300	Shopee TH	53,520,000	Shopee	62,226,700	Shopee Vietnam	63,703,300
Shopee	126,996,700	Lazada	7,530,000	Lazada	13,753,300	Lazada TH	32,860,000	Lazada	37,773,300	The Gioi Di Dong	29,323,300
Bukalapak	29,460,000	Amazon	6,533,300	PGMall	7,066,700	Advice	2,653,300	Zalora	1,733,300	Tiki	19,023,300
Lazada	27,670,000	Qoo10	4,033,300	Zalora	1,290,000	Powerbuy	2,406,700	eBay	790,200	Lazada VN	17,950,000
Blibli	18,440,000	EzBuy	1,120,000	eBay	450,100	Central Online	2,233,300	Beauty MNL	465,800	Dien May Xanh	16,606,700

Source: iPrice, SimilarWeb, App Annie

We believe these were a result of Shopee's strengths, which include:

- **Shopee's localisation in different markets**

Shopee's business model focuses on hyper-localisation activities in order to build brand loyalty. To ensure that the Shopee app is catered to every country, Shopee develops a customised standalone mobile app for different markets. Furthermore, Shopee also sets up local teams in each market to serve both its sellers and customers. This allows Shopee to formulate localisation strategies at different levels, such as launching customised product selection, service portals and marketing campaigns in different markets.

- **Shopee's aggressive marketing strategies**

In order to capture a large buyer and seller base, Shopee had to rely hugely on their marketing campaigns. Two marketing methods that are highly important to Shopee's success are influencer marketing and monthly promotions.

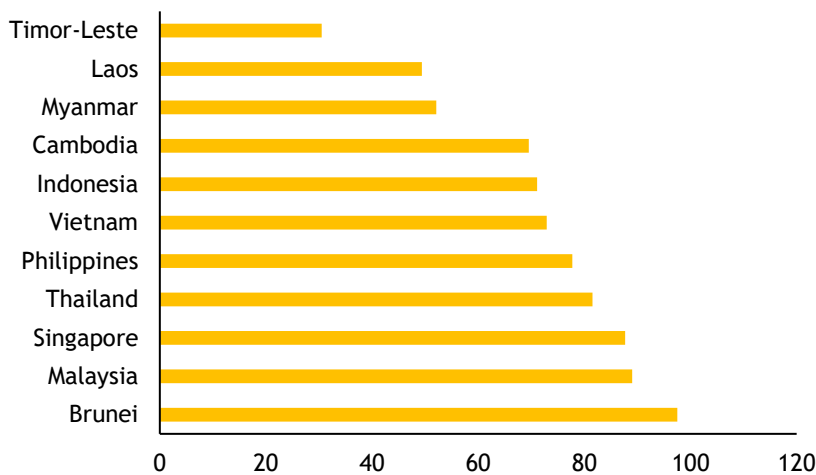
Shopee uses major social media influencers to promote the Shopee brand. The most popular Shopee influencers thus far are Kpop group Blackpink and football superstar Cristiano Ronaldo. Cristiano Ronaldo is also currently the most followed influencer on Instagram. Other than employing global superstars, Shopee also rely heavily on local celebrities to promote their brand, which is in line with their hyper-localisation strategy. Some examples of local celebrities are, comedians Mark Lee and Phua Chu Kang in Singapore, singer Son Tung MTP in Vietnam, Thai Kpop idol Bambam in Thailand, boxer Manny Pacquiao and actress Anne Curtis in Philippines and singer Nella Kharisma in Indonesia.

Other than influencer marketing, Shopee also regularly launch sales events. Shopee launches monthly sales events such as 1.1, 2.2, 3.3,..., 11.11 and 12.12. These events usually generate large sales for Shopee.

- **Mobile first approach**

Currently, over 95% of Shopee orders are made through mobile devices. When Shopee first entered the e-commerce market, it recognised that mobile platforms are the future of e-commerce. This is due to the relative accessibility of mobile vs. desktops and other methods of going online, from the perspectives of ease of use, portability, and economic accessibility. For instance, in Indonesia, one of Shopee's key markets, mobile penetration is 63.4% as at Jun-21, contrasting desktop at 35.6%, according to Statcounter. Across ASEAN-6, there are over 360 million internet users, of which 90% of them are connected primarily via mobile.

Fig 33: Internet penetration in Southeast Asia, 2020



Source: Statista

In context of the merger of Tokopedia and Gojek (a ride hailing unicorn from Indonesia), Sea's strategy to remain competitive from a logistical perspective is to continue investing and integrating the capabilities of its 3PL providers as well as its own Xpress service. Sea also does not feel disadvantaged from the merger of Tokopedia and Gojek as it believes that it has exposure to three of the largest consumer internet opportunities in the region, and the ability to manage it well across many complex and different markets. Zooming out, Sea also believes that the digital economy runway is long and believes that there is tremendous opportunity to grow the pie.

4.3 SeaMoney - Pursuing growth in digital financial services

Overview

While Sea began offering digital financial services in 2014, it was only in 4Q19 that it introduced SeaMoney as the overall brand for such services. According to IDC, SeaMoney is a leading digital financial services provider in the region in 2020.

SeaMoney offerings can be segmented into two components, i.e. payments and financing. On the payments side, Seamoney provides mobile wallet solutions where users can make online payments, top up their wallets, transfer and withdraw funds, and make payments with offline merchants. The wallet is known as ShopeePay in Indonesia, Malaysia, the Philippines, and Singapore, while in Thailand and Vietnam, it is branded as AirPay. Aside implementing the e-wallet on Sea's own platforms, SeaMoney has been expanding the e-wallet's use cases across 3rd party merchants both online and offline. Current merchants include telcos, entertainment outlets (e.g. movie theatres, concert venues, etc), food delivery service providers, credit card issuers, banks, insurance companies and car leasing companies.

As at 2Q21, SeaMoney has 32.7m quarterly paying users (QPU), which is a growth of 110% YoY. Much of this growth stems from Indonesia. In the same period, total payment volume rose 156.3% YoY to USD4.1b, and segment revenue surged nearly 659% YoY to USD89m.

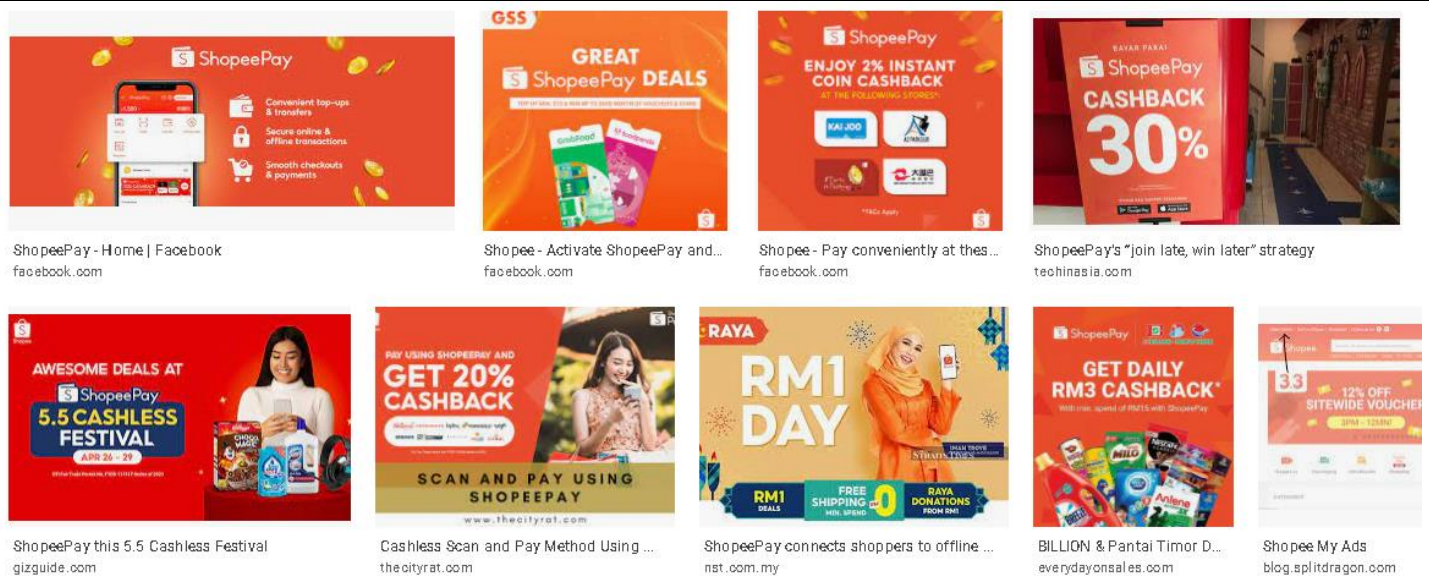
The other part of SeaMoney's business is consumer financing. As at FY20, Sea has obtained the necessary approvals to provide loans in Indonesia, Thailand, Philippines, and Malaysia.

In Dec-2020, MAS announced that Sea's Singapore subsidiary was among two applicants that are to be awarded a digital full bank licence. This would eventually allow Sea to provide retail customers with services such as opening accounts, deposits, and issuing debit and credit cards. With the licence, Sea can also serve corporate customers. The key difference between a digital bank licence vs. a traditional one is that all services will be done online. Sea has also acquired a controlling interest in a local commercial bank in Indonesia in 2020.

Sea believes that SeaMoney's long-term addressable opportunity is highly significant. For example, in Malaysia, of 1.7m eBelia applicants (eBelia is a government financial assistance program to assist youths), close to 1m applicants chose to claim their credits using SeaMoney's mobile wallet over other wallets. Sea attributes the rapidly rising popularity of its wallet to its more than 750,000 touchpoints in Malaysia, and the network effects of the wallet driving adoption in the region.

Business model

Sea monetizes SeaMoney by charging commissions to 3rd party merchants for their mobile wallet services, and by earning interest from borrowers from the consumer credit business. Marketing of SeaMoney's offerings is mainly through offline advertisements and in-app advertisements through the Shopee app.

Fig 34: Examples of ShopeePay advertisements across various types of mediums


Source: Google Image

Sea believes synergies from SeaMoney, Shopee and Garena can drive user base growth and monetisation quickly and cost-effectively. For instance, as Garena and Shopee users increasingly use ShopeePay/AirPay, this would attract more 3rd party merchants to join the e-wallet network. Concomitantly, users of the e-wallet may also explore Sea's other platforms.

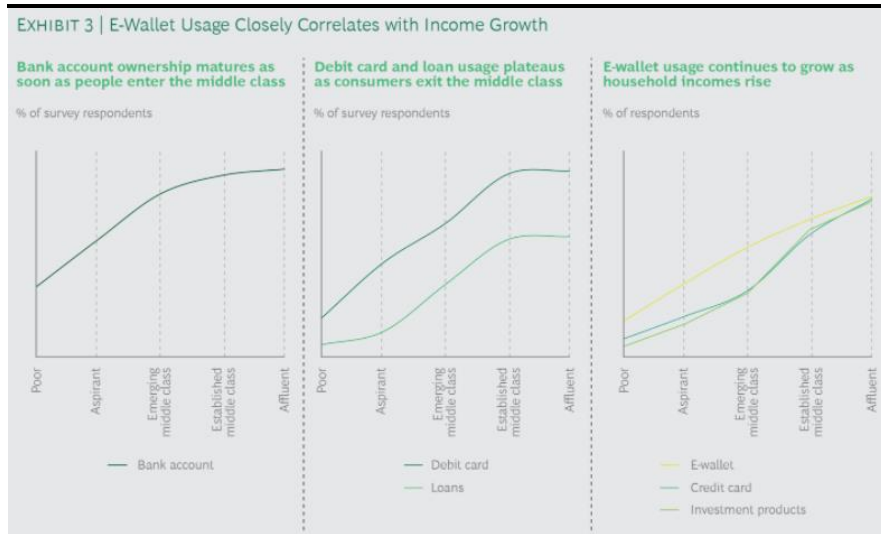
Presently, Sea's focus is to invest in user acquisition for the SeaMoney business, as it believes that monetisation potential can be maximized in the future by thoughtfully building user base and increasing engagement first.

Outlook (e-wallets)

According to Kantar (London-based data analytics firm), the frequency of use of e-wallets rose from an average of 18% pre-Covid-19 to 25% post-Covid-19. Covid-19 has also catalysed a shift in SME's adoption of online, as this was driven out of necessity (i.e. strong encouragement from authorities and demand from customers for contactless payments/ increase in e-commerce activity during lockdowns and work from home periods).

Meanwhile, according to Bain, e-wallet's share of digital payments GTV in 2020 was 3%, or USD18.6b across ASEAN-6. Bain expects this to account for 6% of GTV by 2025, or USD72b. This implies e-wallet GTV CAGR of 40% during 2020-2. Meanwhile, BCG found that e-wallet usage continues to rise as household incomes rise (Fig 35).

Fig 35: E-wallet usage closely correlates with income growth

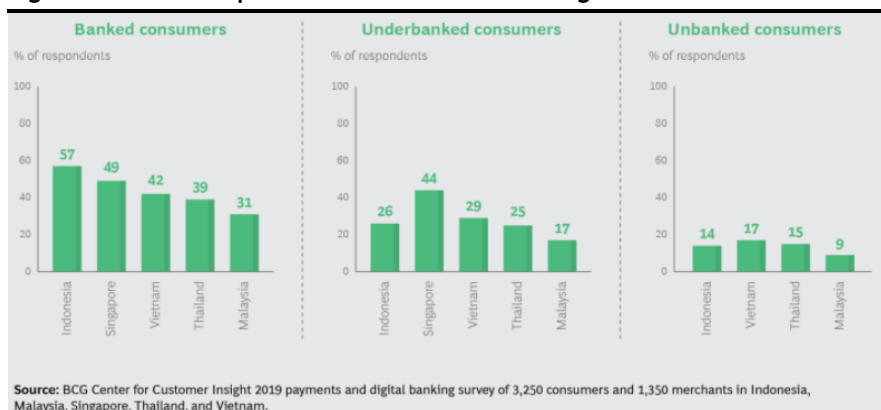


Source: Boston Consulting Group

BCG sees enormous potential for digital finance in ASEAN if unmet needs can be met. Key findings from a 2019 survey of 5,000 consumers and merchants include:

- E-wallets are only used by 13% of Southeast Asia’s unbanked population. This includes nearly half of Indonesian and 2/3 of Vietnamese adults. BCG believes e-wallet penetration in the region’s unbanked could reach 58% by 2025.
- 54% of respondents say that low acceptance by merchants is a hindrance to greater e-wallet usage. However, 74% of merchants surveyed would accept e-wallets if current barriers are addressed. Often, these barriers are poor understanding of process, complex merchant payment processing, and high fees.
- Up to 10% of deposits and up to 12% of credit card business in Indonesia, Malaysia, Thailand, and Vietnam could move to nonbank digital players.

Fig 36: There is low penetration of e-wallets among unbanked consumers

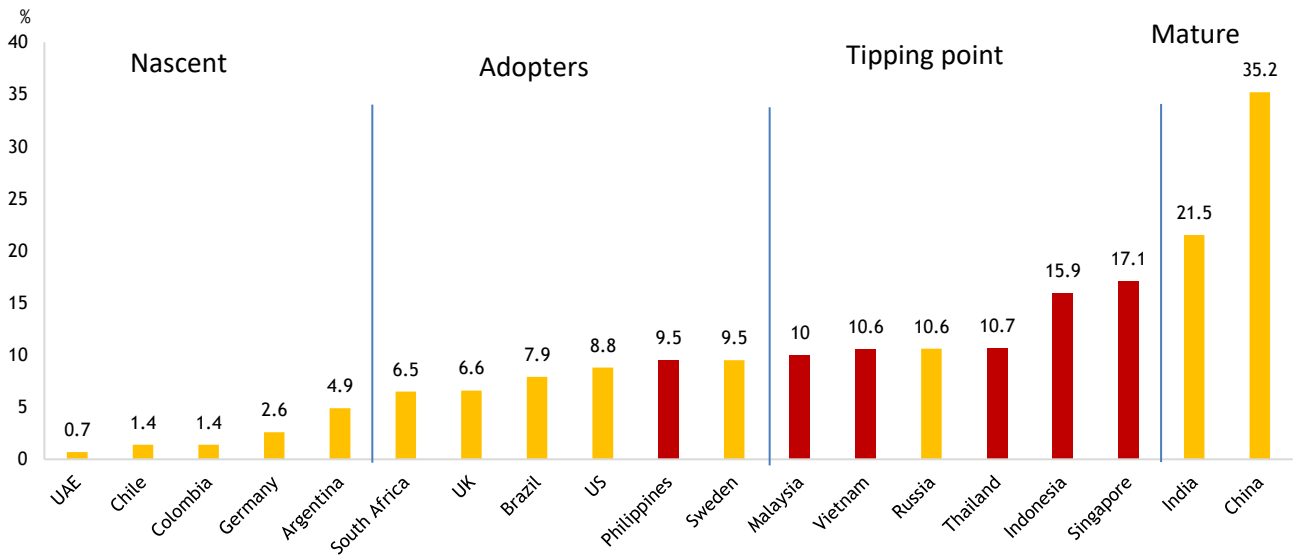


Source: BCG Center for Customer Insight 2019 payments and digital banking survey of 3,250 consumers and 1,350 merchants in Indonesia, Malaysia, Singapore, Thailand, and Vietnam.

Source: Boston Consulting Group

BCG sees Southeast Asia as being at a tipping point for e-wallet penetration (see Fig 37). Southeast Asia shares several characteristics with China, where digital payments are already at a mature stage. These include high digital penetration and engagement, extensive friction between consumers and commercial banks, investments by startups and digital platforms, a steady expansion of uses cases, and strong government push.

Fig 37: Many ASEAN countries are at the tipping point of e-wallet adoption (red bars indicate SeaMoney’s presence)



Source: Boston Consulting Group

On the other hand, BCG believes that e-wallet providers will have to overcome several hurdles to be winners in this space, which include:

- Making usage ubiquitous: BCG found that 57% of banked respondents use e-wallets, while only 14% of the unbanked respondents use e-wallets. This suggests a vastly underserved market. BCG estimates that by 2025, about 35% of e-wallet purchases would be from small ticket purchases, a sevenfold increase from what it is now.
- Increasing merchant acceptance: One of the current pains in why merchants are reluctant to accept e-wallet payments is due to complexity of the process and inconvenience. However, 74% of merchant respondents expressed willingness to accept e-wallets in the future if these pain points are resolved.
- Increasing customer loyalty and value: 56% of respondents cite promotional discounts and cash back as a key factor across Southeast Asia - suggesting low customer loyalty. BCG found that 60% of urban customers would continue to use e-wallets even if providers did not offer promotions and discounts. However, this varied by markets (i.e. 76% of Thais agreed, while only 30% of Singaporeans did).

The e-wallet space is extremely fragmented in Southeast Asia, and competition is strong. We expect consolidation, as the current model of customer acquisition through financial incentives with no fees is unlikely to be sustainable, especially for small independent players. In this regard, ultimate winners in this space may prove to be i) regional tech disruptors that are financially well-backed and/ or ii) disruptors that form alliances with incumbents such as banks.

Outlook (digital bank and broader digital financial services)

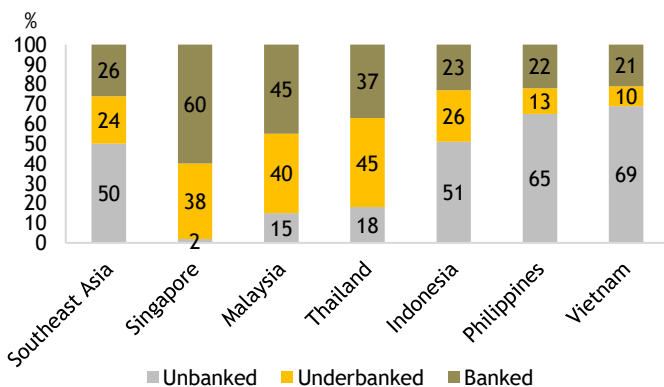
While Sea has been awarded a digital bank licence in Singapore, we believe this is only a first step to a much larger grand vision, i.e. to tap the growth opportunity of the underbanked in ASEAN.

For instance, in an article from “The Edge” on 17-Jun-21, it is believed that Sea and YTL are expected to form a consortium to bid for a digital banking licence in Malaysia. Malaysia is expected to issue up to five digital banking licences, and the article also named Petronas, Genting, Grab and the Sarawak government as potential bidders for the licence.

This is because of the relative advantages that consumer technology platforms like Sea have over traditional institutions like banks in courting the underbanked. According to Google, Temasek and Bain, these advantages are leaner cost structures supported by shared distribution for a wide suite of products, no outdated technology systems, access to rich data sets and digital native customer engagement. In contrast, established players have struggled historically and have been unable to serve this segment well, as costs are too high, and the absence of credit history has limited risk appetite to this segment.

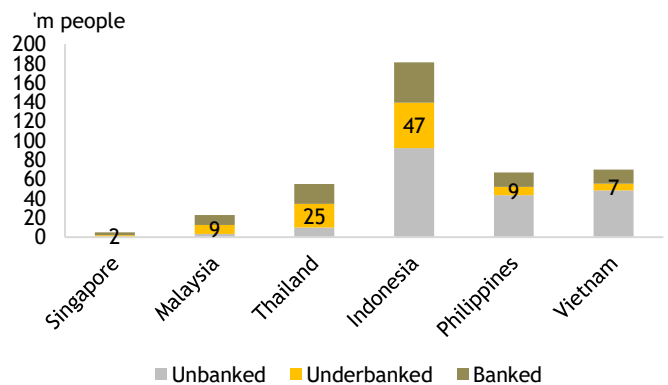
In this regard, Indonesia and Vietnam appear the most promising markets, due to i) a large underbanked population (As at 2018: Indonesia - 47m, Vietnam - 7m) (Fig 38 & 39), and ii) new entrants have successfully gained consumers’ trust over established players (Fig 40). It is noteworthy that Sea gained full control over Indonesia’s Bank Kesejahteraan Ekonomi (or more commonly known as Bank BKE) in early-2021 to accelerate its growth in digital financial services. Following the acquisition, Bank BKE has been renamed as SeaBank and among its products include digital savings as well as corporate and commercial credit. Indonesia’s financial regulator, the OJK, has also recently introduced new rules to speed up developments in the digital banking industry. These include near full ownership of local lenders and the reduction of red tape.

Fig 38: More than 70% of Southeast Asia’s 400m population is either underbanked or unbanked (2018 data)



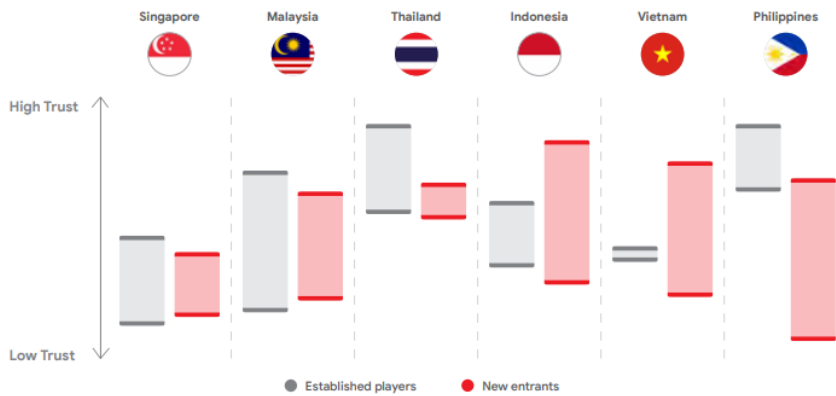
Source: Google, Temasek, Bain (2019)

Fig 39: The underbanked in Indonesia and Vietnam account for c.55% of Southeast Asia’s underbanked population of 98m



Source: Google, Temasek, Bain (2019), Maybank Kim Eng

Fig 40: New entrants are gaining consumers' trust, catching up with established players quickly, especially in Indonesia and Vietnam



Notes: Question: "How would you rate the e-payment service providers based on your trust of its brand for payment of your products/services?"; lines show range of highest and lowest scores
Source: Bain SEA Digital Platform Consumer Survey, 2019 (n=2800)

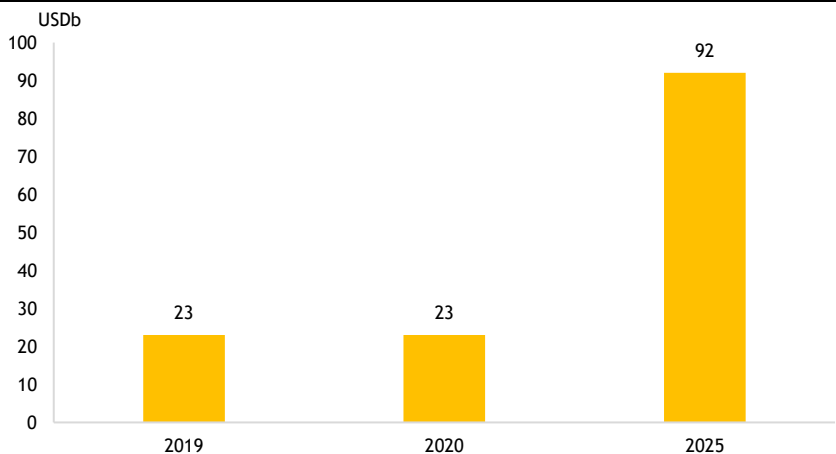
Source: Google, Temasek, Bain (2019)

SMEs are also a largely unbanked segment and an interesting growth opportunity. According to Google, Temasek and Bain, 80% of its respondents lack access to affordable credit. A survey of Indonesian SMEs found 76% already accept digital payments or are likely to do so in the next three years, suggesting that SMEs are at the cusp of digital adoption.

In 2019, Google, Temasek and Bain estimated that digital financial (DFS) services accounted for USD11b of revenue (or 5% of Southeast Asia financial services revenue). By 2025, Southeast Asia DFS revenue is projected to reach USD38m (c. 11% of financial services revenue), implying a CAGR of 23%. However, in an ideal scenario, where there are fundamental changes in consumer behaviour, further underpinned by supportive regulations, financial infrastructure, and scaled funding, the authors expect Southeast Asia to hit its full potential and projects DFS revenue to hit USD60b by 2025 (c. 17% of financial services revenue).

According to the 2020 edition of Google, Temasek and Bain's "e-Conomy SEA", ASEAN-6 digital lending loan book is projected to enjoy a 32% CAGR during 2020-25 to USD92b (Fig 41). Meanwhile, BCG's 2019 survey of over 3,000 respondents found that Southeast Asian banks could see 3-18% of value shift to digital banks, with the highest of these from Indonesia, Vietnam, and Thailand (Fig 42).

Fig 41: ASEAN-6 digital loan book expected to enjoy 32% CAGR over 2020-25 to USD92b



Source: Google, Temasek, Bain (2020)

Fig 42: Digital loan book expected to enjoy 32% CAGR over 2020-25 to USD92b

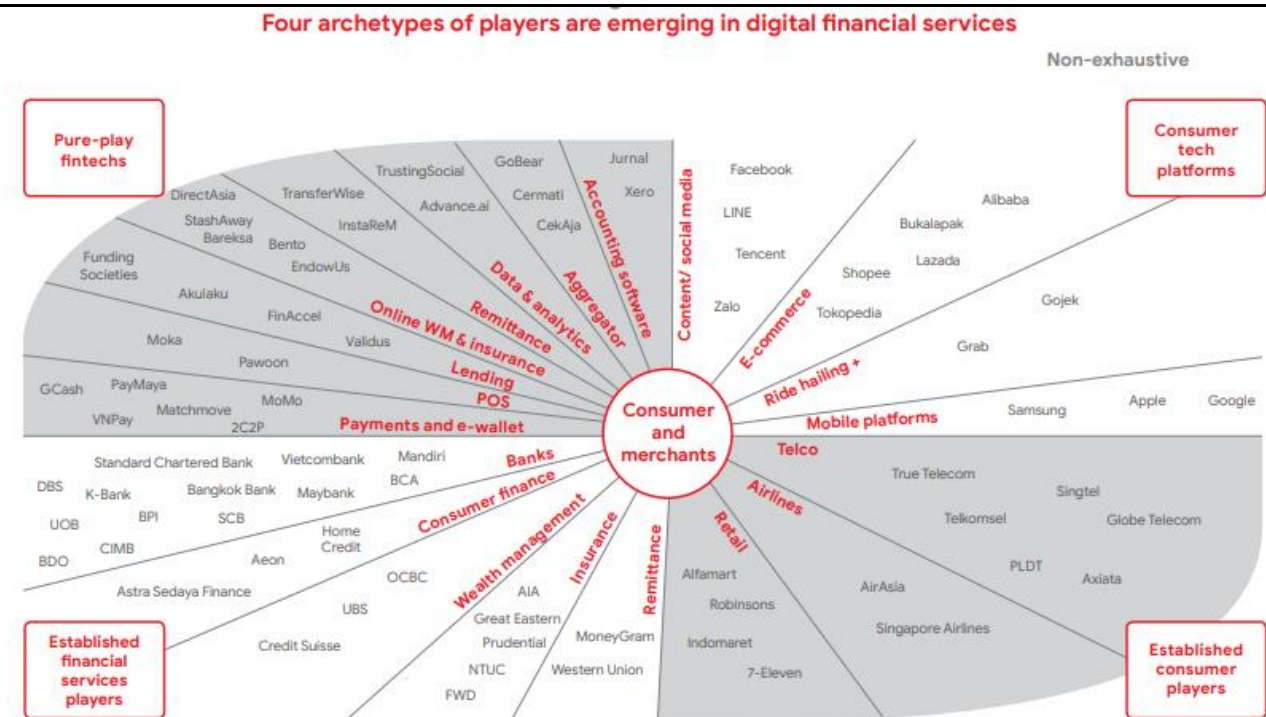
	Value shift by retail banking customers		Value shift by SME banking customers
	Deposits	Credit card	
Thailand	8-10%	14-16%	12-14%
Malaysia	6-8%	10-12%	9-13%
Vietnam	13-15%	16-18%	14-16%
Indonesia	10-12%	12-14%	11-13%
Singapore	3-5%	3-5%	4-6%

Source: BCG

Competitive landscape (digital financial services)

At present, the competitive landscape is very fragmented. Google, Temasek and Bain views each player as falling into one of four archetypes, being i) established financial services players (e.g. banks), ii) established consumer players (e.g. telcos and airlines); iii) pureplay fintechs (e.g. Transferwise, Stashaway, EndowUs, Funding Societies etc), and consumer technology platforms (e.g. Shopee, Lazada, Grab, Gojek, etc).

Fig 43: Four archetypes of digital financial services



Source: Google, Temasek, Bain (2019)

In the case of Southeast Asia, the jury is still out on which archetype will emerge as the winner. However, Google, Temasek and Bain believe that winners will be determined by the players’ ability to secure i) share of mind (top of mind for a particular offering), ii) share of time (time spent/ frequency of use), and iii) share of trust (building trust with consumers and merchants)

On the 4-Dec-2020, MAS announced that SEA is one of four companies that have been awarded a digital banking licence in Singapore as a Digital Full Bank (DFB). Currently, the two types of licence awarded by the MAS in

Singapore are the Digital Full Bank licence and Digital Wholesale Bank Licence (DWB).

A DFB will be able to serve both retail and corporate customers, providing services such as account opening, deposits, loans, debit and credit cards, payments and investment products. As it is a digital bank, the bank will not be allowed to have any physical branches or ATM, hence all banking services must be done online.

There were 21 applicants that submitted the application for the digital banking licence in Singapore. Out of which, 14 applicants were shortlisted by MAS and evaluated based on a few criteria such as, value proposition and business model, sustainability of the digital banking business, innovative use of technology, growth prospects and other contribution to Singapore Financial Centre. (The full set of criteria can be found in Appendix II).

The Digital Banks also must follow the minimum requirements and permissible activities that were listed by MAS. Minimum requirements such as minimum paid-up capital, risk based capital and liquidity rules and at least one physical place of business. (The full set of requirements and permissible activities can be found in Appendix III).

The following table indicates the list of winners for the digital bank licence and their company profile.

Fig 44: Profiles of the digital bank licence winners in Singapore

	Company	Company Business	Type of Licence	Consortium	Stake in Consortium
1	Grab	Technology	Digital Full Bank Licence	Yes	60%
	Singapore Telecommunications Limited	Telecommunication			40%
2	SEA Limited	Entertainment, E- Commerce, Financial Payment	Digital Full Bank Licence	No	NA
3	Ant Group	Financial Technology	Digital Wholesale Bank Licence	No	NA
4	Greenland Financial Holdings	Owned by real estate developer, Greenland Group, Licenced money lender and money service operator	Digital Wholesale Bank Licence	Yes	NA
	Linklogis Hong Kong				
	Beijing Co-operative Equity Investment Fund Management	Private equity company			

Source: Various sources

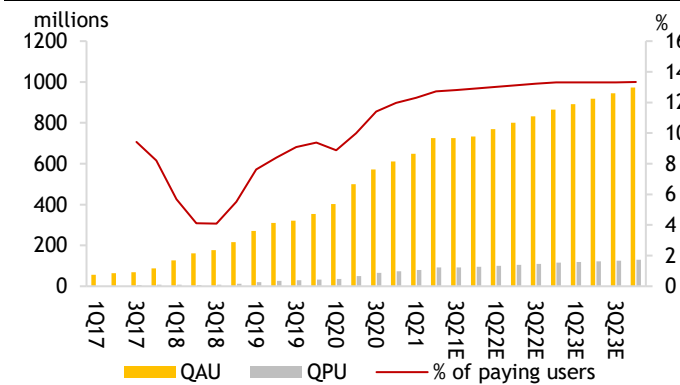
5. Financials

5.1 P&L

We project revenue growth of 102%/50%/34% for FY21/22/23E respectively, driven by broad-based growth across all segments. During the same period, we are forecasting Sea to break even by FY23E.

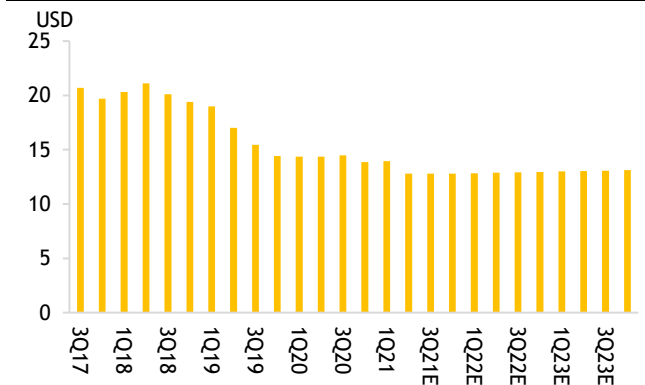
On a segmental basis, we expect Digital Entertainment revenue to grow 75%/29%/17% in FY21-23E, driven by low-to-mid single digit QoQ user growth, while our ARPPU assumptions are around USD12.8-13.4 per quarter (1Q20-1Q21 range: USD13.9-14.4). At the same time, we project percentage of paying users to gradually hit 13.5% by 4Q23, from 12.8% in 2Q21. Factors that drive upside to our forecasts include i) stronger than expected user and/or paying user growth - if the game gains better than expected traction in fast growing markets (e.g. India, Latin America, or other new markets), and/or ii) stronger than expected ARPPU growth.

Fig 45: Digital entertainment QAU and QPU



Source: Company, Maybank Kim Eng

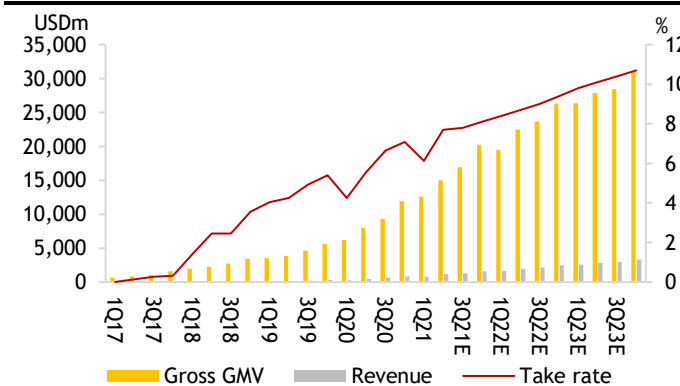
Fig 46: Digital entertainment ARPPU



Source: Company, Maybank Kim Eng

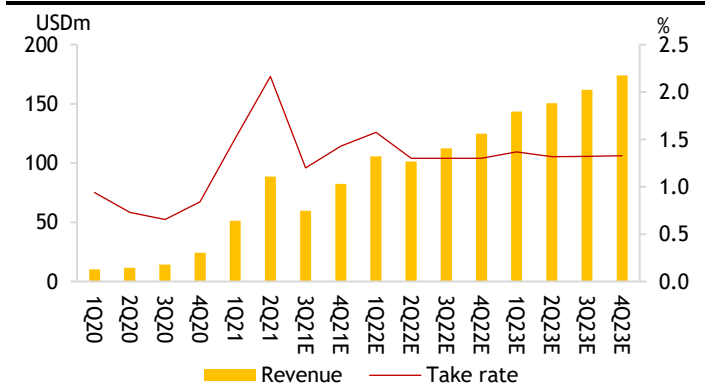
Meanwhile, we expect E-commerce and other services revenue to grow 135%/61%/39% in FY21-23E, driven by rising GMV and improving e-commerce take rates for the e-commerce business, as well as rising quarterly paying users and transaction payment volume per user (TPVPU) for digital financial services. For e-commerce, Sea believes that over a longer horizon, take rates can further improve to high single digits or even low-double digits. We currently forecast e-commerce take-rate of 10.3% in 2023E.

Fig 47: E-commerce GMV, revenue and take rate



Source: Company, Maybank Kim Eng

Fig 48: Digital financial services revenue and take rate

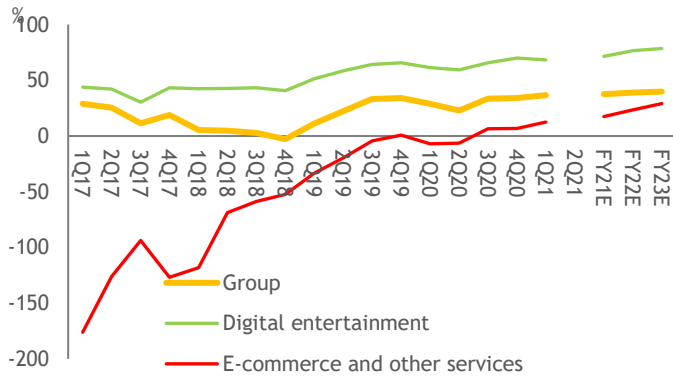


Source: Company, Maybank Kim Eng

We forecast group gross margin of 37.4%/38.9%/39.9% throughout FY21-23E, as we expect economies of scale on the back of revenue growth in digital entertainment and e-commerce (See Fig 49).

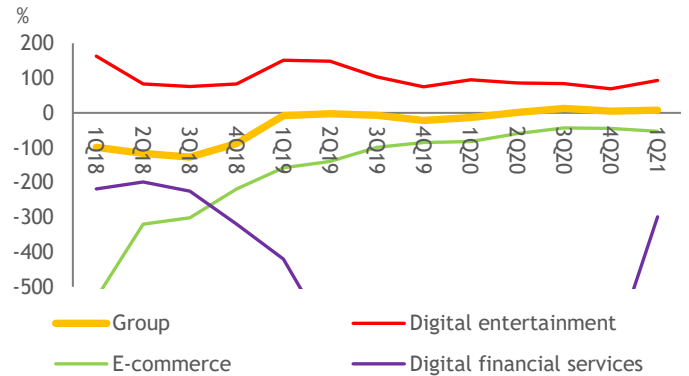
We expect sales & marketing and R&D expenses to remain elevated, growing 83%/27%/12% in FY21-23E, as Sea continues to invest in e-commerce and digital financial services. In Fig 53, we observe that while Sea has one of the largest sales & marketing plus R&D as a percentage of revenue among large gaming and e-commerce companies, Sea is also among the fastest growing.

Fig 49: Gross margin profile



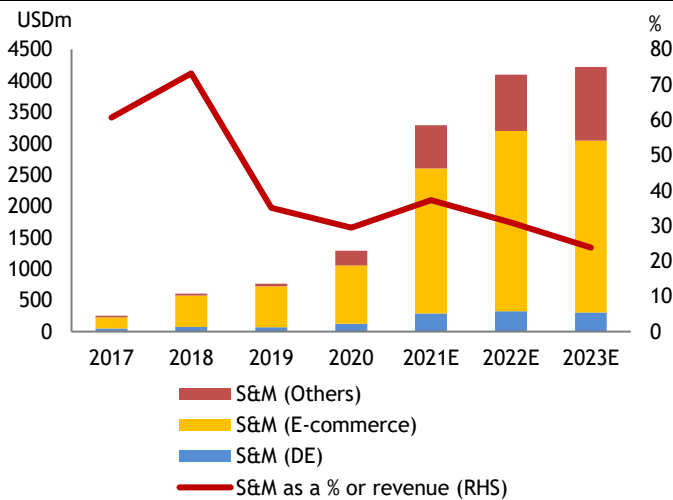
Source: Company, Maybank Kim Eng

Fig 50: Adjusted EBITDA margin profile



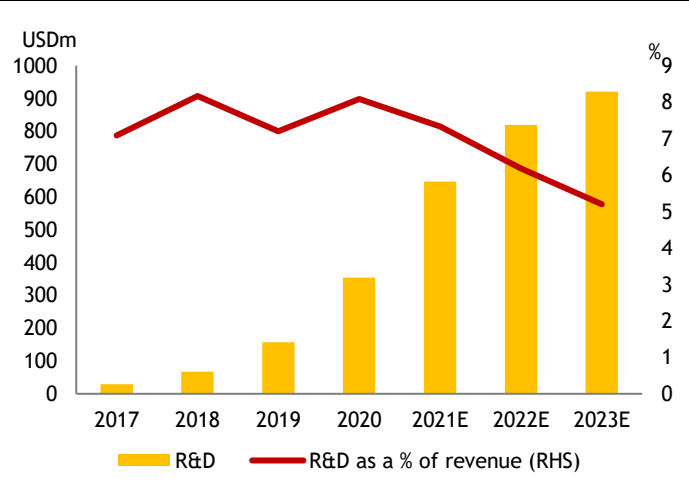
Source: Company

Fig 51: Sales and marketing expenses



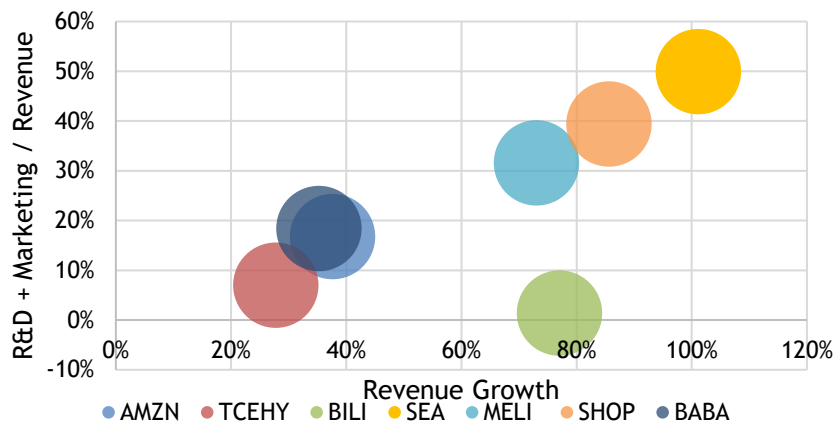
Source: Company, Maybank Kim Eng

Fig 52: R&D expenses



Source: Company, Maybank Kim Eng

Fig 53: Sea's marketing and R&D enables revenue growth. Over time, we anticipate that converted users will be stickier - which provides better monetization opportunities



Source: Companies

Fig 54: Key assumptions driving P&L forecasts

Drivers	2019	2020	2021E	2022E	2023E	Comments
Digital Entertainment						
Bookings (USDm)	1,767.4	3,186.4	4,694.0	5,547.1	6,480.9	
Revenue (USDm)	1,136.0	2,016.0	3,523.4	4,542.0	5,307.1	
Change in deferred revenue (USDm)		1,170.4	1,170.7	1,005.1	1,173.8	
Average QAU (m)	314.5	521.2	707.9	816.5	932.0	
% change in QAU		66%	36%	15%	14%	
Average QPU (m)	27.3	56.0	89.9	107.5	124.1	
QPU as a % of QAU	8.7%	10.7%	12.7%	13.2%	13.3%	Assuming marginally rising share of QPU vs QAU
Booking per QPU (USD)	64.7	56.9	52.2	51.6	52.2	
Revenue per QPU (USD)	41.6	36.0	39.2	42.2	42.8	Factoring gradual improvement in monetisation
E-commerce						
Gross GMV (USDm)	17,557.1	35,400.0	64,754.4	92,022.9	113,730.7	Broad based growth.
Take rate (%)	4.8%	6.1%	7.5%	8.9%	10.3%	Factoring improving take rate
Revenue (USDm)	834.3	2167.1	4826.0	8203.8	11680.7	
Sales of goods						
Gross revenue (USDm)	216.7	582.4	1133.2	1989.0	3037.0	
As a % of e-commerce revenues	26%	27%	23%	24%	26%	Assuming sales of goods is a relatively tight % of e-commerce revenues
Digital financial services						
Average QPU (m)	na	16.8	35.8	62.4	86.5	
Average TPV per user (USD)	na	455.2	510.2	524.5	545.8	
TPV (USDm)	na	7.8	18.2	32.8	47.3	
Take rate	na	0.8%	1.5%	1.4%	1.3%	
Revenue (USDm)	na	60.8	282.1	444.2	629.9	
Gross margin						
Digital entertainment	61.6%	65.2%	71.5%	76.7%	78.5%	Factoring continued economies of scale
E-commerce and other services	-10.3%	1.9%	17.4%	23.4%	29.1%	Factoring increasing scale from e-commerce
Cost of goods sold	-4.8%	0.3%	6.6%	6.9%	7.3%	Expecting limited ability to expand margins as Shopee is a middleman
Other P&L items as a % of revenue						
Other operating income	0.7%	4.3%	4.4%	2.0%	2.0%	
Sales and marketing expenses	44.6%	41.8%	37.8%	30.9%	23.8%	Expected to grow at a slower pace than revenue growth
General and admin expenses	17.7%	15.0%	11.3%	10.2%	8.0%	
R&D expenses	7.2%	8.1%	7.3%	6.2%	5.2%	Expected to grow at a slower pace than revenue growth

Source: Company, Maybank Kim Eng

Fig 55: P&L

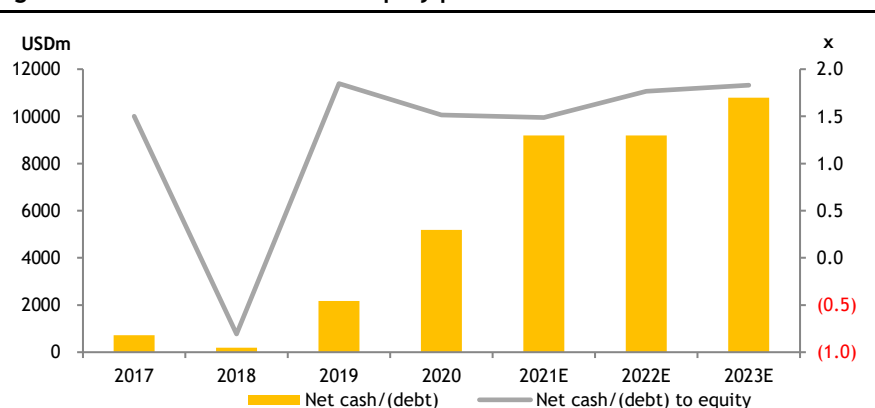
P&L	2019	2020	2021E	2022E	2023E	Notes
Service revenue						
Digital entertainment	1,136.0	2,016.0	3,523.4	4,542.0	5,307.1	
E-commerce and other services	822.7	1,777.3	4,169.6	6,725.6	9,366.3	
Sales of goods	216.7	582.4	1,133.2	1,989.0	3,037.0	
Total revenues	2,175.4	4,375.7	8,826.1	13,256.6	17,710.4	Refer to Fig 54 for drivers
Cost of service						
Digital entertainment	(435.9)	(702.3)	(1,004.5)	(1,057.1)	(1,140.0)	
E-commerce and other services	(907.5)	(1,743.8)	(3,444.2)	(5,152.6)	(6,639.4)	
Cost of goods sold	(227.0)	(580.7)	(1,058.6)	(1,852.4)	(2,816.6)	
Total costs of revenues	(1,570.5)	(3,026.8)	(5,507.3)	(8,062.0)	(10,596.0)	Refer to Fig 54 for drivers
Gross profit	604.9	1,348.9	3,318.8	5,194.6	7,114.4	
Other operating income	15.9	189.6	385.0	263.8	352.4	
Sales and market expenses	(969.5)	(1,830.9)	(3,332.5)	(4,099.3)	(4,216.9)	Rising spend to acquire users in e-commerce and DFS
General and admin expenses	(385.9)	(657.2)	(993.0)	(1,346.8)	(1,409.4)	
Research and development expenses	(156.6)	(353.8)	(646.8)	(819.2)	(920.6)	
Operating income/(loss)	(891.2)	(1,303.3)	(1,268.4)	(806.9)	919.7	
Add: depreciation & amortization	121.6	180.8	293.9	507.3	791.4	
EBITDA	(769.6)	(1,122.6)	(974.5)	(299.6)	1,711.1	Forecasting EBITDA profitability in FY23
Interest income	33.9	24.8	25.5	26.3	27.1	
Interest expense	(48.2)	(148.2)	(114.0)	(200.2)	(223.9)	Primarily from convertible notes
Investment gain, net	11.8	(17.8)	-	-	-	
Changes in fair value of convertible notes	(472.9)	(0.1)	-	-	-	
Foreign exchange gain/(loss)	(2.0)	(38.6)	-	-	-	
Share of results of equity investees	(3.2)	0.7	0.7	0.7	0.7	
Income/(loss) before income tax	(1,371.9)	(1,482.5)	(1,356.2)	(980.1)	723.7	
Income tax expense	(85.9)	(141.6)	(306.5)	(408.8)	(493.6)	
Net income/(loss) before minority	(1,457.7)	(1,624.2)	(1,662.7)	(1,388.9)	230.1	
Minority interests	(5.1)	6.1	6.1	6.1	6.1	
Net income/(loss) after minority	(1,462.8)	(1,618.1)	(1,656.6)	(1,382.8)	236.2	Forecasting Sea to achieve profitability by FY23E
Gross margin	28%	31%	38%	39%	40%	
EBITDA margin	-35%	-26%	-11%	-2%	10%	
EBIT margin	-41%	-30%	-14%	-6%	5%	
PBT margin	-63%	-34%	-15%	-7%	4%	
Net margin	-67%	-37%	-19%	-10%	1%	

Source: Company, Maybank Kim Eng

5.2 Balance sheet and cash flow

From a balance sheet perspective, we continue to expect Sea to be in a net cash position. This implies that we largely expect investments for Shopee and SeaMoney to be largely funded by Garena. We forecast capex to be 8% of revenue from FY21-23E. As Sea is currently focused on growing its businesses, we expect that there will be no dividend payments throughout our forecast period. We have factored in about USD6b of proceeds in the balance sheet and cash flow statements from announced issuance of 11m new ADS and USD2.5b of convertible debt.

Fig 56: Net cash and net cash to equity position



Source: Maybank Kim Eng, Company

Fig 57: Balance sheet

	2019	2020	2021E	2022E	2023E	Comments
Cash and cash equivalents	3,119	6,167	12,145	12,083	13,626	Expect positive cash flow to aid in cash build; i.e expansion in e-commerce and DFS is funded by digital entertainment. Have also factored in proceeds from fundraising in Sep-21
Restricted cash	435	859	859	945	1,040	
Accounts receivable	187	363	556	872	1,165	
Prepaid expenses and other assets	535	1,054	1,247	1,576	1,835	
Loans receivable	-	286	286	286	286	
Inventories	27	64	87	152	232	
Others	107	146	146	146	146	
Total current assets	4,410	8,939	15,325	16,059	18,327	
Property and equipment	319	386	784	1,206	1,656	
Operating lease ROU assets	183	235	235	235	235	
Intangible assets	15	40	37	35	33	
Long-term investments	114	190	211	231	252	
Prepaid expenses and other assets	66	205	289	365	425	
Loans receivable	-	117	117	117	117	
Restricted cash	17	27	27	27	27	
Others	101	316	316	316	316	
Total noncurrent assets	814	1,517	2,016	2,533	3,062	
Total assets	5,224	10,456	17,340	18,592	21,389	
Accounts payable	69	122	171	233	279	
Accrued expenses and other payables	981	2,033	2,679	3,663	4,382	
Advances from customers	65	161	228	343	458	
Amount due to related parties	35	43	43	43	43	
Short-term borrowings	1	-	-	-	-	
Operating lease liabilities	56	75	75	75	75	
Deferred revenue	1,098	2,150	2,701	3,404	4,226	
Convertible notes	29	-	27	28	343	
Income tax payable	27	52	52	52	52	
Total current liabilities	2,362	4,636	5,975	7,841	9,858	
Accrued expenses and other payables	25.8	36.2	67.7	92.5	110.7	
Long-term borrowings	0.4	-	-	-	-	
Operating lease liabilities	144.0	177.9	177.9	177.9	177.9	
Deferred revenue	160.7	343.3	1,157.4	1,459.0	1,811.1	
Convertible notes	1,356.3	1,840.4	3,781.9	3,814.0	3,534.2	
Others	2.0	1.6	1.6	1.6	1.6	
Total noncurrent liabilities	1,689	2,399	5,187	5,545	5,635	
TOTAL LIABILITIES	4,052	7,035	11,161	13,386	15,494	
Additional paid-in capital	4,687.3	8,526.6	9,438.4	9,842.4	10,288.6	
Accumulated other compre. income	5.4	4.7	4.7	4.7	4.7	
Statutory reserves	0.0	2.4	2.4	2.4	2.4	
	(3,530.6)	(5,151.0)	(6,807.6)	(8,190.4)	(7,954.1)	
Accumulated profit/ (deficit)						
Non-controlling interests	10.2	37.3	43.4	49.5	55.6	
Others	0.2	0.3	3,498.1	3,498.1	3,498.1	
Total equity	1,172.7	3,420.2	6,179.3	5,206.7	5,895.2	
TOTAL LIABILITIES AND EQUITY	5,224	10,456	17,340	18,592	21,389	

Source: Company, Maybank Kim Eng

Fig 58: Cash flow statement

Cash flow statement	2019	2020	2021E	2022E	2023E	Comments
Net income / (loss)	(1,457.7)	(1,624.2)	(1,662.7)	(1,388.9)	230.1	
Adjustments:						
Amortization of intangibles	4.8	11.7	3.0	1.9	1.4	
Depreciation of PPE	116.8	169.1	290.9	505.4	790.0	
Others	623.9	473.1	358.5	452.8	495.7	
CFO before WC changes	(712.2)	(970.3)	(1,010.3)	(428.8)	1,517.2	
Changes in WC	782.1	1,525.9	1,633.5	1,379.8	1,363.6	
Cash flow from operations	69.9	555.6	623.2	951.0	2,880.8	
Purchase of PPE	(239.8)	(336.3)	(706.1)	(928.0)	(1,239.7)	Assuming capex as a % of revenue of 8% in FY21-23E
Purchase of intangibles	(7.3)	(20.8)	24.6	(3.0)	(1.9)	
Purchase of investments	(118.5)	(219.5)	(20.4)	(20.4)	(20.4)	
Acquisition of businesses, net of cash	-	(92.2)	-	-	-	
Others	141.0	305.6	34.4	281.0	335.5	
Cash flow from investing	(224.5)	(363.2)	(667.5)	(670.4)	(926.5)	
Proceeds from issuance of CN	1,041.4	1,141.4	2,500.0	-	-	
Proceeds from borrowings	0.9	1.2	-	-	-	
Repayment of borrowings	(1.1)	(31.8)	-	-	-	
Proceeds from issuance of ord. shares	1,538.8	2,970.2	3,498.0	-	-	
Others	(0.4)	(347.9)	-	-	-	
Cash flow from financing	2,579.6	3,733.1	5,998.0	-	-	
Effect of FX rate changes	25.0	80.7	-	-	-	
Net increase (decrease) in cash, CE and restricted cash	2,311.3	3,701.9	5,950.8	24.5	1,637.0	
Balance, beginning	1,259.3	3,570.6	7,053.1	13,003.9	13,028.4	
Balance, ending	3,570.6	7,272.5	13,003.9	13,028.4	14,665.4	
Free cash flow	(170.0)	219.3	(82.9)	23.0	1,641.1	

Source: Maybank Kim Eng

6. Valuation

Our TP of USD378 is based on an SOTP approach. We value the digital entertainment business at USD112/ADS, the e-commerce business at USD227/ADS, and digital financial services at USD23/ADS.

For the digital entertainment business, our valuation is based on 27x FY22E P/E. This is a 23%/20% premium over global peers/ Tencent respectively, which we believe is warranted despite concentration risks with Free Fire given Garena's faster earnings growth than global peers over FY20E-23E (Garena: 60%; Tencent: 10%; global peers: 12%). As for the e-commerce business, we value it at 1.4x FY22 P/GMV, which is a premium to global peers and in line with Mercado Libre, as we see potential long-term upside in Shopee's new markets. We used P/GMV as Shopee, while fast growing, is still unprofitable due to the investments that it has to make to expand in both traditional and new markets. Meanwhile, we value the digital financial services business at 0.4x P/TPV, a premium over PayPal's 0.25x, as we believe we may be currently underestimating SeaMoney's long-term growth potential from the perspective of the underbanked population in ASEAN.

Fig 59: SOTP valuation

Business	Methodology	Multiple (x)	Metric	Value of metric (USDm)	Value of business (USDm)	Note
Digital entertainment	P/E	27	FY22E P/E	2,362	63,769	Premium to global peers on account of faster earnings growth rate
E-commerce	P/GMV	1.4	FY22E GMV	92,023	128,832	Higher than global peers but relatively in line with Mercado Libre to account for long-term upside in new markets
Digital financial services	P/TPV	0.4	FY22E TPV	32,752	9,826	Higher than Paypal's 0.25x to account for long-term potential upside from ASEAN underbanked population
FY22E enterprise value					205,702	
FY22E net cash (USDm)					9,217	
Equity value (USDm)					214,919	
Number of shares (m)					567.94	
Value per share (USD)					378	

Source: Maybank Kim Eng, Bloomberg

Fig 60: Peer comps

Company	BBG Code	MKE Rec	MKE TP (LC)	Price (LC)	Mcap USDm	P/E (x)			EPS CAGR	EV /EBITDA (x)		P/S (x)	
						FY1	FY2	FY3		FY1	FY2	FY1	FY2
Digital entertainment													
Tencent	700 HK	NR	-	488.00	602,872	26.5	22.5	18.7	10%	17.8	14.6	6.6	5.5
Electronic Arts	EA US	NR	-	146.60	41,720	22.8	20.4	17.4	13%	15.5	14.1	5.6	5.3
Take Two Interactive	TTWO US	NR	-	160.56	18,708	33.8	22.8	17.8	9%	22.0	15.0	5.5	4.5
Netease	NTES US	NR	-	92.99	63,078	22.5	19.1	16.4	19%	18.2	14.8	4.6	3.9
Zynga	ZNGA US	NR	-	8.80	9,609	22.3	18.9	17.3	13%	13.8	10.8	3.3	3.0
NCSOFT	036570 KS	NR	-	622,000	11,802	30.6	17.1	15.2	15%	19.6	10.9	5.9	4.4
Netmarble	251270 KS	NR	-	126,000	9,361	33.4	26.5	23.4	14%	24.5	19.6	4.0	3.6
Nexon	3659 JP	NR	-	2,192	17,931	19.0	14.9	14.4	34%	11.9	8.4	6.5	5.4
Bandai Namco	7832 JP	NR	-	7,993	16,181	24.8	21.1	19.6	22%	12.3	10.7	2.2	2.1
Average						26.0	21.9	18.3	12%	17.6	14.3	6.2	5.2
E-commerce													
Alibaba	BABA US	NR	-	170.30	460,264	17.4	13.5	11.3	14%	12.2	9.2	3.2	2.6
JD.com	JD US	NR	-	79.86	107,423	53.1	33.6	24.5	26%	40.2	23.6	0.7	0.6
Meituan	3690 HK	NR	-	244.80	171,740	-	996.4	71.5	55%	NA	150.8	6.1	4.4
Pinduoduo	PDD US	NR	-	102.23	128,124	-	-	79.5	NM	NA	NA	7.2	5.1
VIPSHOP	VIPS US	NR	-	15.40	9,391	9.1	7.7	6.7	18%	5.5	3.8	0.5	0.4
Amazon.com	AMZN US	NR	-	3,478	1,761,425	62.3	47.5	35.3	33%	22.5	17.6	3.6	3.0
eBay	EBAY US	NR	-	76.53	49,749	19.5	16.9	15.4	13%	13.1	11.8	4.1	3.8
Shopify	SHOP US	NR	-	1,554	175,939	359.5	324.2	196.6	26%	372.2	309.3	39.5	29.7
MercadoLibre	MELI US	NR	-	1,946	96,739	5091	433.9	163.9	NM	265.8	148.4	15.2	11.1
Rakuten	4755 JP	NR	-	1,117	16,079	-	-	70.8	NM	330.9	11.8	1.1	1.0
Baozun	BZUN US	NR	-	24.39	1,739	20.8	14.0	10.6	30%	10.6	7.6	1.0	0.7
Average						255.5	128.6	48.6	30%	54.8	46.7	6.2	4.9
Payments and fintechs													
Visa	V US	NR	-	225.11	379,905	39.8	31.7	26.7	19%	29.8	23.9	16.1	13.4
Mastercard	MA US	NR	-	340.23	333,027	43.2	32.5	26.5	26%	31.9	24.7	18.0	15.1
Paypal	PYPL US	NR	-	289.13	339,737	61.1	49.2	39.1	24%	43.2	34.8	13.1	10.8
Square	SQ US	NR	-	269.74	107,194	175.7	127.9	92.1	52%	139.3	97.9	5.3	4.6
Afterpay	AFTPF US	NR	-	96.75	28,228	-	265.8	112.9	-216%	472.4	168.3	40.9	24.6
Zip Co	Z1P AU	NR	-	6.78	2,837	-	-	376.9	-133%	NA	1038	9.7	5.9
Average						59.0	48.6	38.2	19%	50.3	38.6	16.8	13.9

Source: FactSet, Bloomberg, Maybank Kim Eng

7. Risks

7.1 Revenue concentration in digital entertainment and in e-commerce

The digital entertainment business accounted for 46-56% of revenue in FY18-20 and is the primary driver of group gross profit as other segments are either hardly or not yet profitable. In FY20, Sea's top 5 games accounted for 96% of digital entertainment revenue, of which Free Fire contributed a significant portion. Unless Sea successfully launches new games that can contribute revenues materially, growth of the digital entertainment business will be reliant on a small number of titles. In turn, current titles also face risks of slowing or negative growth if these become less popular, less engaging, or face regulatory issues in the countries that they are available in. Aside, the e-commerce business is also concentrated as top two markets account for the majority of total orders and GMV.

7.2 Growth of user base and level of user engagement

Due to network effects, the size of Sea's user base and engagement are critical success factors. While Sea continues to invest significant resources to grow these, there are several factors that could negatively impact user base/ engagement, such as:

- Decline in popularity of Sea's platforms, in turn possibly driven by reduction in content/ service quality, and/or failure to innovate and adapt to new trends.
- User concerns pertaining privacy and safety
- Sea's monetisation measures cause users to shift to other platforms
- Launch of new games causes cannibalisation from existing games

7.3 Expansion and investment risks

To boost its e-commerce capabilities, Shopee will continue to develop last-mile delivery and warehousing capacity and expand its offerings (e.g. food delivery). These are expected to require large capex. Failure to accurately predict demand or to adapt to evolving business needs may result in increased costs or impairment charges.

As Sea expands its DFS business and amount of loans disbursed increase, Sea may require further capital. Inability to raise adequate capital could limit the growth of the business. Further, Sea is a relatively new entrant in the digital financial services industry, and there are risks that Sea may not be able to achieve the required level of market acceptance to recoup the investments made to expand this business.

Sea established Sea Capital to manage its overall investment efforts following the acquisition of Composite Capital Management in 1Q21. Failure to select appropriate investments, or suboptimal terms and arrangement (e.g. financing) are also risks inherent to Sea's investment efforts.

7.4 Competition

While Sea is a leader in the businesses that it operates in, it faces intense competition both directly and indirectly in each of these businesses.

For DE, competitors include companies that have presence in single and multiple markets, as well as global platforms. Outside of GSEA, Sea has

limited operating history and may see risks in monetising and retaining users. For e-commerce, Sea faces competition from both single-market and regional players in most if not all of the markets it operates in. As for DFS, competition stems from existing online and offline payment methods. Competition will intensify as industry players introduce new or enhanced offerings.

For these businesses, competitors may have better access to financial, technological, and marketing resources that may provide them stronger competitive advantage over Sea.

7.5 Regulatory risk

Sea's businesses are subjected to laws and regulations include game operation, marketing & advertising, privacy, personal information, content restriction, sale of regulated or prohibited items, anti-bribery and anti-corruption regulations and digital financial service regulations. As the industries that Sea operate in are relatively new, the relevant laws and regulations are often unclear and evolving. This may result in Sea not being able to renew or obtain new licences. Failure to adhere to regulations may subject Sea to financial penalties or disruptions in business operations, which may in turn materially adversely impact business performance.

8. Appendix I (Management profiles)

Fig 61: Management profiles

Name	Title	Key Experience
Forrest Li	Chairman and Group CEO	<ul style="list-style-type: none"> • Current role since 2009 • Other directorships: Singapore Economic Development Board (BOD), Shangri-La Asia Limited (Independent Non-Executive Director), National University of Singapore (Board of Trustees), Stanford University's Graduate School of Business (Advisory Council). • Education: M.B.A. Degree from Stanford University's Graduate School of Business, Bachelor Degree in Engineering from Shanghai Jiaotong University
Gang Ye	Group Chief Operating Officer	<ul style="list-style-type: none"> • Current role since 2017 • Previous role: Group Chief Technology Officer (2010-2016) • Key past experience: Worked at Wilmar International and the Economic Development Board of Singapore • Education: B.S. degrees in Computer Science and Econs from Carnegie Mellon University
David Chen	Chief Product Officer (Shopee)	<ul style="list-style-type: none"> • Current role since 2019 • Previous role: Group Chief Operating Technology Officer (2009-2016), Group Chief of Staff (2017 - 2019) • Key past experience: Held positions at PSA Corporation Limited • Education: Bachelor Degree in Computer Engineering from the National University of Singapore
Tony Hou	Group Chief Financial Officer	<ul style="list-style-type: none"> • Current role since 2013 • Previous role: Group Financial Controller (2010-2013) • Key past experience: Senior Audit Manager at Ernst & Young, non-practicing U.S. Certified Public Accountant and a non practicing member of the Chinese Institute of Certified Public Accountants • Education: MBA Degree from the University of Chicago's Booth School, Bachelor Degree in Accounting from Fudan University
Chris Feng	CEO of Shopee and SeaMoney	<ul style="list-style-type: none"> • Current role since 2015 (Shopee), 2020 (SeaMoney) • Previous role: Head of Mobile Business (2014-2015) • Key past experience: Part of the Founding Team at Rocket Internet SE, where he established ventures such as Zalora and Lazada, and served as Regional Managing Director and at Zalora and Chief Purchasing Officer at Lazada. Was also a consultant at McKinsey. • Education: Bachelor's Degree in Computer Science from the National University of Singapore
YanJun Wang	Group Chief Corporate Officer, Group General Counsel and Company Secretary	<ul style="list-style-type: none"> • Current role since 2019 (Chief Corporate Officer), 2017 (Company Secretary), 2014 (General Counsel) • Key past experience: Attorney at Skadden, Arps, Slate, Meagher & Flom LLP in New York and Kirkland & Ellis in Hong Kong. • Education: J.D. degree from Harvard Law School, B.A. degree in Economics from Harvard University
Nok Anulomsombut	Ceo of Thailand	<ul style="list-style-type: none"> • Current role since 2016 • Previous role: Chief Operating Officer of Thailand (2014 - 2016) • Key past experience: Management Consultant at The Boston Consulting Group in Bangkok and previous positions at financial and fashion companies in Thailand • Education: Bachelor's Degree in Industrial Engineering from Chulalongkorn University in Thailand, M.B.A. degree from Stanford University Graduate School of Business
Terry Zhao	President of Garena	<ul style="list-style-type: none"> • Current role since 2018 • Previous role: Various Senior Roles in SEA digital entertainment business across key markets (2009-2018) • Education: Bachelor's Degree in Computer Engineering from Nanyang Technological University

Source: Company

9. Appendix II (Eligibility criteria for Singapore digital bank licence)

Fig 62: Eligibility criteria for Singapore digital bank licence

Criteria for all digital full bank (DFB) and digital wholesale bank (DWB) applicants

1. An entity in the group must have 3 or more years of track record in operating and existing business in the technology or e-commerce field
2. The following persons are fit and proper:
 - a. Applicant group and their directors;
 - b. Substantial shareholders and 12% controllers of the proposed digital bank; and
 - c. Directors and executive officers of the proposed digital bank, when identified
3. The Company must have the ability to meet the applicable minimum paid-up capital requirement at the onset and the minimum capital funds requirement on an ongoing basis. A written confirmation from shareholders of the proposed digital bank on commitment of funds must be submitted to the MAS

For DFB applicants, they must include a commitment of funds or fundraising plans to meet the minimum paid up capital of SGD1.5b.

4. Provides clear value proposition, incorporating the innovative use of technology to serve customer needs and reach under-served segments of the Singapore market
5. The proposed digital bank business model is sustainable.

The applicant must provide a 5 year financial projection of the proposed digital bank, showing a path towards profitability. The assumptions of the financial projection must be reviewed by an external and independent expert

6. Submits a feasible plan that can facilitate the orderly exit of the proposed digital bank.
7. Shareholders of the proposed digital bank commit to providing a letter of responsibility and a letter of undertaking that MAS may require in respect of the operations of the proposed digital bank.

Extra Requirement for DFB Applicants

MAS will only consider DFB applicants who are anchored in Singapore, controlled by Singaporeans and headquartered in Singapore.

The following are the factors required:

1. The proposed DFB and the parent entity identify Singapore as their home country
2. The parent entity's global head office is in Singapore
3. The parent entity's and the proposed DFB's effective management are situated in Singapore
4. If there is no parent entity, a Singapore individual or entity which holds the single largest shareholding and has effective control over the proposed DFB meets the above conditions

If there is a partnership between Singapore and foreign entities, the Singapore entity needs to have an absolute majority stake and demonstrate clear control of the DFB.

Source: Monetary Authority of Singapore

10. Appendix III (requirement and permissible activity of DFB and DWB)

Fig 63: Requirement and permissible activity of DFB

	<u>Restricted DFB</u>		<u>DFB</u>
	<u>Entry</u>	<u>Progression</u>	
Minimum Paid Up Capital	SGD15 Million	To progressively increase	SGD1.5 billion
Deposit Cap	SGD50 million in aggregate SGD75,000 per individual Only solicit deposits from limited scope of customers	Aggregate Cap to progressively increase SGD75,000 per individual No limit on scope of depositors	No Deposit Cap
DFB will be required to be a member of the Deposit Insurance Scheme ⁸			
Risk based capital and liquidity rules	Capital: Same as domestic systemically important banks Liquidity: 16% minimum liquid assets		Capital: Same as local banks Liquidity: Same as local banks
Permissible Activities and other requirements	<u>Applicable regardless of progression</u> a. 1 Physical Place of Business b. Not allowed access to ATMs or CDMs network but allowed to offer cashback service through EFTPOS terminals at retail merchants		
	<u>Applicable during restricted phase</u> a. Corporate Governance rules: Phased In b. Not allowed to safeguard other financial institutions' relevant money under the Payment Service Act 2019 c. Unsecured credit limit for an individual: 2 times monthly income of individual d. No proprietary trading activities		
	<u>Applicable during entry phase</u> a. For investment products offered to individuals, only simple capital markets products b. Banking operations in at most 2 overseas markets		

Source: Monetary Authority of Singapore

Fig 64: Requirements and permissible activities for DWB

Requirements	<p>Same Requirements as wholesale banks, including</p> <ol style="list-style-type: none"> 1. Min paid up capital of S\$100 million 2. Risk based capital and liquidity requirements 3. Requirements related to Tech, Money Laundering, Terrorism Financing Risk 4. Conduct of non-financial business
Permissible Activities and Other Requirements	<p>The permissible activities of a DWB are the same as a traditional Wholesale Bank. A DWB can only conduct the proposed business(ess) outlined in its first 2-3 years and would require MAS approval to expand its business scope.</p> <p>The additional requirements are as follows.</p> <ol style="list-style-type: none"> 1. Only allowed to operate 1 physical place of business 2. A DWB will not be allowed to grant unsecured credit facilities to retail individuals 3. DWB will not be allowed to perform the function of a “safeguarding institution” under section 23 of the Payment Services Act 2019 4. The DWB will be able to share executive officers with its parent or affiliate entities during the first few years but not beyond 5 years

Source: Monetary Authority of Singapore

FYE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
Key Metrics					
P/E (reported) (x)	nm	nm	nm	nm	nm
Core P/E (x)	nm	nm	nm	nm	nm
Core FD P/E (x)	nm	nm	nm	nm	nm
P/BV (x)	16.0	29.1	29.3	34.9	30.9
P/NTA (x)	16.1	29.1	29.2	34.8	30.8
Net dividend yield (%)	0.0	0.0	0.0	0.0	0.0
FCF yield (%)	nm	0.2	nm	0.0	0.9
EV/EBITDA (x)	nm	nm	nm	nm	99.4
EV/EBIT (x)	nm	nm	nm	nm	nm
INCOME STATEMENT (USD m)					
Revenue	2,175.4	4,375.7	8,826.1	13,256.6	17,710.4
EBITDA	(769.6)	(1,122.6)	(974.5)	(299.6)	1,711.1
Depreciation	(121.6)	(180.8)	(293.9)	(507.3)	(791.4)
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	(891.2)	(1,303.3)	(1,268.4)	(806.9)	919.7
Net interest income / (exp)	(14.3)	(123.4)	(88.5)	(173.9)	(196.8)
Associates & JV	(3.2)	0.7	0.7	0.7	0.7
Exceptionals	0.0	0.0	0.0	0.0	0.0
Other pretax income	(463.1)	(56.5)	0.0	0.0	0.0
Pretax profit	(1,371.9)	(1,482.5)	(1,356.2)	(980.1)	723.7
Income tax	(85.9)	(141.6)	(306.5)	(408.8)	(493.6)
Minorities	(5.1)	6.1	6.1	6.1	6.1
Discontinued operations	0.0	0.0	0.0	0.0	0.0
Reported net profit	(1,462.8)	(1,618.1)	(1,656.6)	(1,382.8)	236.2
Core net profit	(1,462.8)	(1,618.1)	(1,656.6)	(1,382.8)	236.2
BALANCE SHEET (USD m)					
Cash & Short Term Investments	3,553.9	7,026.1	13,025.7	13,050.3	14,687.2
Accounts receivable	187.0	363.0	556.2	871.7	1,164.5
Inventory	26.9	64.2	87.0	152.3	231.5
Property, Plant & Equip (net)	318.6	386.4	783.8	1,206.3	1,656.1
Intangible assets	15.0	39.8	36.6	34.7	33.3
Investment in Associates & JVs	0.0	0.0	0.0	0.0	0.0
Other assets	1,122.6	2,576.2	2,873.2	3,299.0	3,638.3
Total assets	5,224.2	10,455.7	17,362.5	18,614.2	21,411.0
ST interest bearing debt	1.3	0.0	0.0	0.0	0.0
Accounts payable	69.4	121.6	170.5	233.2	279.0
LT interest bearing debt	1,356.7	1,840.4	3,781.9	3,814.0	3,534.2
Other liabilities	2,624.0	5,073.0	7,209.0	9,338.0	11,681.0
Total Liabilities	4,051.5	7,035.4	11,161.1	13,385.5	15,493.8
Shareholders Equity	1,162.4	3,382.9	6,157.9	5,179.2	5,861.6
Minority Interest	10.2	37.3	43.4	49.5	55.6
Total shareholder equity	1,172.7	3,420.2	6,201.3	5,228.7	5,917.2
Total liabilities and equity	5,224.2	10,455.7	17,362.5	18,614.2	21,411.0
CASH FLOW (USD m)					
Pretax profit	(1,371.9)	(1,482.5)	(1,356.2)	(980.1)	723.7
Depreciation & amortisation	121.6	180.8	293.9	507.3	791.4
Adj net interest (income)/exp	0.0	0.0	0.0	0.0	0.0
Change in working capital	782.1	1,525.9	1,633.5	1,379.8	1,363.6
Cash taxes paid	0.0	0.0	0.0	0.0	0.0
Other operating cash flow	538.0	331.5	52.0	44.0	2.2
Cash flow from operations	69.9	555.6	623.2	951.0	2,880.8
Capex	(239.8)	(336.3)	(706.1)	(928.0)	(1,239.7)
Free cash flow	(170.0)	219.3	(82.9)	23.0	1,641.1
Dividends paid	0.0	0.0	0.0	0.0	0.0
Equity raised / (purchased)	1,538.8	2,970.2	3,520.0	0.0	0.0
Change in Debt	1,041.2	1,110.8	4,394.1	(26.7)	(49.0)
Other invest/financing cash flow	(123.8)	(679.1)	(1,858.4)	28.1	44.9
Effect of exch rate changes	0.0	0.0	0.0	0.0	0.0
Net cash flow	2,286.2	3,621.2	5,972.8	24.5	1,637.0

FYE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
Key Ratios					
Growth ratios (%)					
Revenue growth	163.1	101.1	101.7	50.2	33.6
EBITDA growth	nm	nm	nm	nm	nm
EBIT growth	nm	nm	nm	nm	nm
Pretax growth	nm	nm	nm	nm	nm
Reported net profit growth	nm	nm	nm	nm	nm
Core net profit growth	nm	nm	nm	nm	nm
Profitability ratios (%)					
EBITDA margin	nm	nm	nm	nm	9.7
EBIT margin	nm	nm	nm	nm	5.2
Pretax profit margin	nm	nm	nm	nm	4.1
Payout ratio	0.0	0.0	0.0	0.0	0.0
DuPont analysis					
Net profit margin (%)	nm	nm	nm	nm	1.3
Revenue/Assets (x)	0.4	0.4	0.5	0.7	0.8
Assets/Equity (x)	4.5	3.1	2.8	3.6	3.7
ROAE (%)	na	na	na	na	na
ROAA (%)	(39.4)	(20.6)	(11.9)	(7.7)	1.2
Liquidity & Efficiency					
Cash conversion cycle	18.8	16.7	14.1	15.7	18.5
Days receivable outstanding	23.6	22.6	18.7	19.4	20.7
Days inventory outstanding	7.4	5.4	4.9	5.3	6.5
Days payables outstanding	12.2	11.4	9.5	9.0	8.7
Dividend cover (x)	nm	nm	nm	nm	nm
Current ratio (x)	1.9	1.9	2.6	2.1	1.9
Leverage & Expense Analysis					
Asset/Liability (x)	1.3	1.5	1.6	1.4	1.4
Net gearing (%) (incl perps)	net cash	net cash	net cash	net cash	net cash
Net gearing (%) (excl. perps)	net cash	net cash	net cash	net cash	net cash
Net interest cover (x)	na	na	na	na	4.7
Debt/EBITDA (x)	nm	nm	nm	nm	2.1
Capex/revenue (%)	11.0	7.7	8.0	7.0	7.0
Net debt/ (net cash)	(2,196.0)	(5,185.7)	(9,243.8)	(9,236.2)	(11,153.0)

Source: Company; Maybank

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