Value Asia



Marketplace Businesses + Shopee (Sea Ltd)

An Investment Case Study By Hayden Capital

ValueAsia | October 19 - 21, 2018

Disclaimer

The information and statistical data contained herein have been obtained from sources, which we believe to be reliable, but in no way are warranted by us to accuracy or completeness. We do not undertake to advise you as to any change in figures or our views.

This report includes candid statements and observations regarding investment strategies, individual securities, and economic and market conditions; however, there is no guarantee that these statements, opinions or forecasts will prove to be correct. These comments may also include the expression of opinions that are speculative in nature and should not be relied on as statements of fact.

The information provided in this material should not be considered a recommendation to buy, sell or hold any particular securities. The securities discussed within do not represent all the securities purchased, sold or recommended for client accounts. There is no assurance that any securities discussed herein will continue to be held. It should not be assumed that any of the securities discussed were or will be profitable, or that the investments decisions Hayden makes in the future will be profitable.

Hayden Capital is committed to communicating with our investment partners as candidly as possible because we believe our investors benefit from understanding our investment philosophy, investment process, stock selection methodology and investor temperament. Our views and opinions include "forward-looking statements" which may or may not be accurate over the long term. You should not place undue reliance on forward-looking statements, which are current as of the date of this report. We disclaim any obligation to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. While we believe we have a reasonable basis for our appraisals and we have confidence in our opinions, actual results may differ materially from those we anticipate.

Clients should let Hayden Capital know if financial situations or investment objectives have changed or whether they prefer to place any reasonable restrictions on the management of their account(s) or modify any existing restrictions. All investments contain risk. You should carefully consider your risk tolerance, time horizon, and financial objectives before making investment decisions.

These materials shall not constitute an offer to sell or the solicitation of an offer to buy any interests in any account managed by Hayden Capital LLC ("Hayden Capital") or any of its affiliates. Such an offer to sell or solicitation of an offer to buy will only be made pursuant to definitive subscription documents between Hayden Capital and an investor. We, any officer, or any member of their families, may have a position in and may from time to time purchase or sell any of the above mentioned or related securities.

Who Is Hayden Capital?

Investment Strategy: We invest primarily via a long-biased, low-turnover, global equity strategy. Investments are under-written with a 10+ year view. The goal is to compound our capital in-line with these businesses' growth in earnings power.

- We focus on underlying business unit economics, as opposed to market factors like sentiment or multiple expansion, as the source of our returns.
- Our typical portfolio comprises of 6-15 high-quality companies, that we have studied for an extensive period.
- We don't aim to "beta-hedge" our positions, as this typically results in sacrificing long-term gains for reducing short-term volatility. As long-term investors, we would rather have a superior (although lumpy) annual return, than a steady (but mediocre) return.
- In fact, we embrace volatility in most cases as it allows us to purchase companies we like for cheaper.

Investment Objective: Achieve returns exceeding the broader Global Equity Markets (measured by the S&P 500 and MSCI World), over a full market cycle. Hayden Capital seeks to achieve these returns primarily through publicly traded, marketable securities of U.S. and non-U.S. companies.

- No complex derivatives, "pair-trades", or significant use of leverage.
- All accounts are Separately Managed Accounts ("SMAs"), as opposed to a pooled structure. We think this is in the best interests of our clients, as it provides clients full ownership of their investments, daily liquidity, and transparency.

About Me

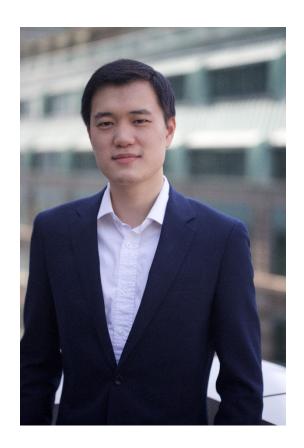
Fred Liu, CFA

Managing Partner

Fred Liu is Hayden Capital's founder and portfolio manager. He holds a B.S. in finance and international business from the Leonard N. Stern School of Business at New York University. He also holds the Chartered Financial Analyst (CFA) designation.

Prior to founding Hayden Capital, Fred was a research analyst at New Street Research responsible for covering the cable and satellite industries. Before this, he was the industrials analyst on J.P. Morgan's Small Cap Equity fund, a five-star Morningstar ranked strategy that invested in securities under \$2 Billion in market cap.

Fred purchased his first stock at the age of 11, and has been an avid value investor ever since. He currently resides in New York City.



Marketplace E-commerce (C2C)

The gateway drug to an online shopping addiction...

Southeast Asia – The Next Battleground

Compared to other regions, Southeast Asia is still in the very nascent stages of e-commerce development.

- Only \sim 3% of retail sales is conducted online, vs. \sim 9% 18% for other Asian countries.
- Market shares tend to stabilize at ~10% e-commerce penetration, so there's still a lot of "white space" for market shares to shift among incremental customers.

Southeast Asia Population

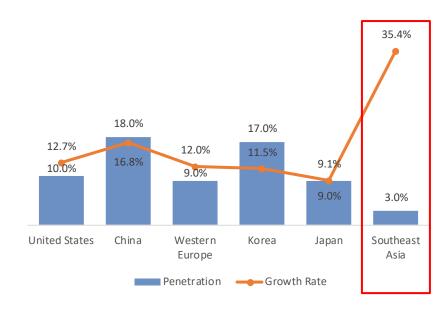
From Sea Ltd Investor Presentation



Total Population: 591.3 million GDP: US\$3.2 trillion

E-Commerce Penetration Rates – By Country

For 2017-18



If You Were To Start an Online Retail Platform, What Would it Look Like?

When launching an online marketplace in Southeast Asia, most likely you'd want it to have the following qualities:

Problem	Solution	Shopee
Southeast Asia is Mobile- oriented	Mobile-first Business Model	\checkmark
Lack of Trust Buying Online	 Focus on Cheap Categories (i.e. Fashion), where the purchase decision is easier (if it's a fake, it's not a huge deal). Build trust over time, as customers order more often. 	\checkmark
Many Competitors	 Make the product addictive. Fashion is a category where shopping is a form of entertainment, and has the highest order frequencies. Fashion marketplaces often have average engagement of >1 hour per day, and order rates of 3 – 5x per month. This is especially true in emerging economies, with fewer entertainment options. The longer customers browse your store, the more likely they'll find something to buy. 	✓
Need to Offer Wide Selection of Products, With Limited Capital	 C2C Marketplace model. This is the quickest way to offer a wide selection of products, while remaining asset-light. 	\checkmark
How Do You Offer Low Prices, When You Don't Control the Product?	 Promote a robust seller ecosystem. With enough sellers competing against each other for the order, natural competition will result in the lowest price at equilibrium. Fashion is also a category where there's great diversity, and it's unlikely multiple sellers will have the same exact product. Small details / design differences can justify pricing differences. 	✓

Marketplaces Are Like Self-Regulating Ecosystems

Imagine you are building a new city from scratch (think Abu Dhabi). How would you attract inhabitants & visitors to develop a robust economy?

Starting a marketplace is very similar. It requires a large initial investment (subway systems vs. IT systems; tax breaks to encourage businesses to relocate there vs. free shipping for buyers to visit, etc), to hopefully create a self-sustaining economy in the future.

- In a marketplace, the company is like a King, determining the laws / rules of conduct, while also adding features that make it attractive to inhabitants vs. other ecosystems (free shipping, ease of listing, buyer data, etc).
- The sellers on the platform are inhabitants, interacting with each other and to maximize their own well-being, while staying within these rules.
- Buyers are like tourists, looking for the most diverse, dynamic, cheapest, and easiest cities to visit and spend their money.
- Once the ecosystem is self-sustaining, the company monetizes by "taxing" all transactions. The inhabitants stay, because despite the new taxes, the living standards are still better than elsewhere (it's better to collect \$1,000 of tourist dollars and pay 10% tax, vs paying 0% tax elsewhere, but only selling \$10).

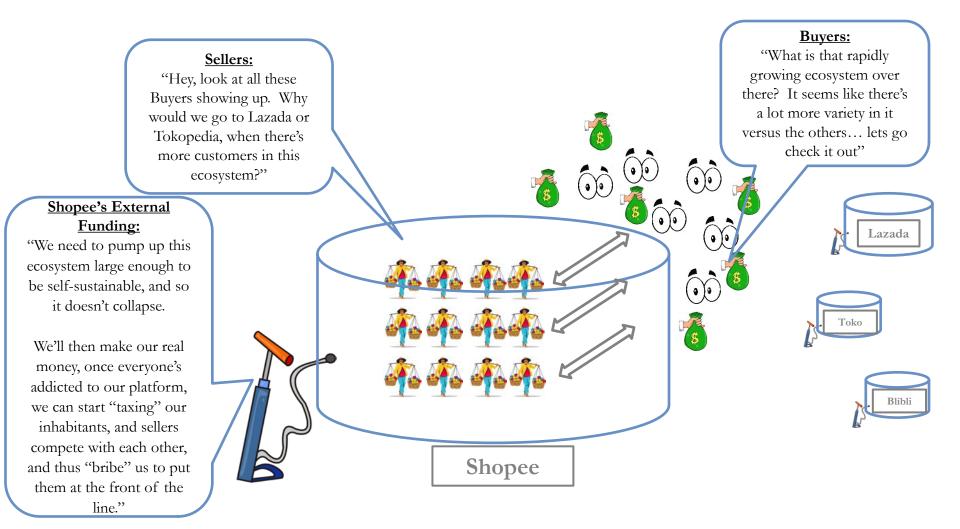
Better yet, the "taxes" (i.e. take-rate) increases, as sellers to compete against each other to collect an even bigger share of "tourist dollars".

- The more that seller pay for services like Advertising, Logistics, etc, the more likely they'll be at the front of the line.
- More sellers = more competition to be at the front = higher revenues for the company.

Note: Similar to evolution, the larger an ecosystem, the more diversity of inhabitants (in this case SKUs). This is important for categories like fashion, where browsing is a fun experience, and variety is a main selling point of a platform.

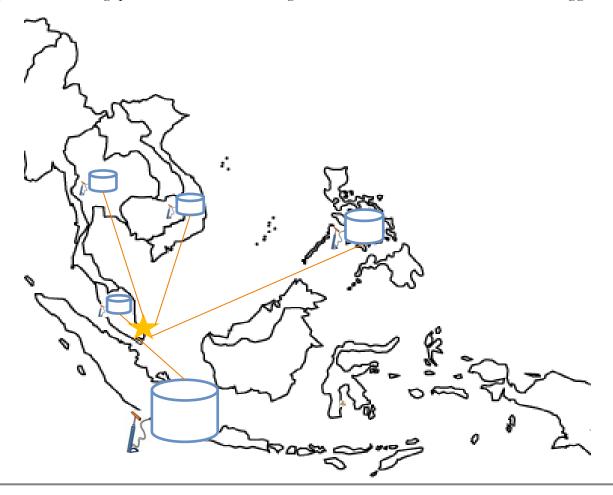
■ Imagine how boring it'd be going to a mall with just 5 stores, vs. one with 1,000's of stores.

Marketplaces Are Like Self-Regulating Ecosystems



These Ecosystems Are Being Developed All Across Southeast Asia

- Southeast Asia is very diverse, with currently little cross-border transactions. Investors must think of each country as a separate subsidiary, each with their own odds at success. This makes it both more resilient (losing in one country won't affect its chances in another), while losing some of the natural benefits to scale a larger homogeneous consumer base would provide.
- Shopee's headquarters is in Singapore, and should be thought of as the "brains" behind this multi-legged model.



Shopee Overview

Shopee is a leading e-commerce platform (C2C) in Southeast Asia. The company was launched as a subsidiary of Sea Ltd (NASDAQ: SE) in 2015.

- Chris Feng (CEO) is ex-Zalora (Rocket Internet), and has staffed the firm with many ex-Zalora colleagues.
 - He was originally hired to be part of Garena (gaming business). It was only after they saw the amount of peer-to-peer selling taking place on their BeeTalk chat program, that Chris recognized the opportunity and ran with it.
 - Conversations with employees indicate he's smart, drives his team hard, and now living almost full-time in Indonesia.
 - Zalora was a specialized Fashion marketplace in the Southeast Asia, and has largely wound-down after Alibaba's purchase
 of Lazada and Rocket Internet subsequently moved their focus to other regions.
- Shopee should generate over \$9BN GMV this year (growing ~120% y/y), equating to ~24% total e-commerce market share.
- The top categories are Fashion (~33%), Health & Beauty (~15%), and Baby Products (~12%).
- Indonesia and Taiwan comprise the majority of Shopee's GMV (~50% of GMV). The company also operates in Vietnam, Thailand, Philippines, Malaysia, and Singapore.

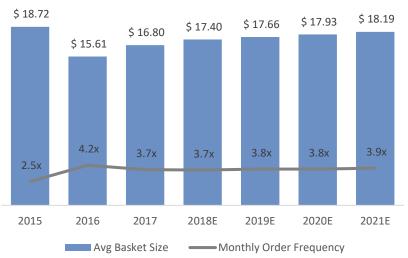
Shopee GMV & Take-rates

2015 - 2021E



Shopee Avg Basket Size & Monthly Order Frequency

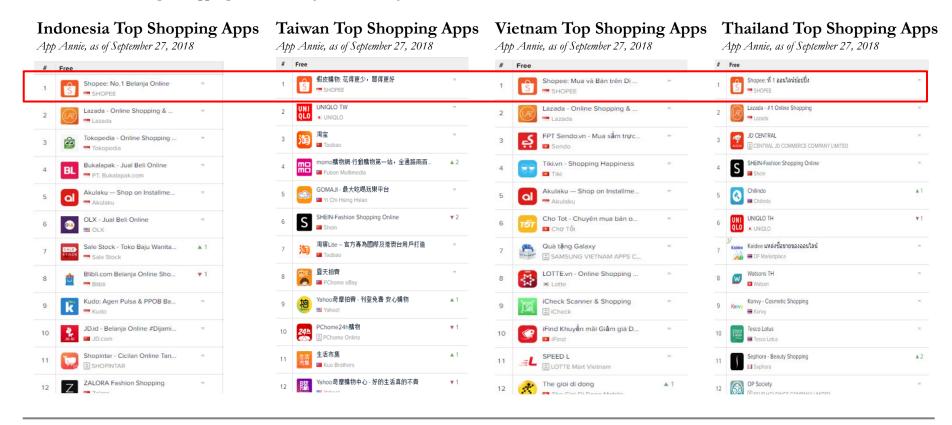
Estimates from Hayden Capital



Mobile First

In Asia, mobile usage vs. desktop is much higher than in the West.

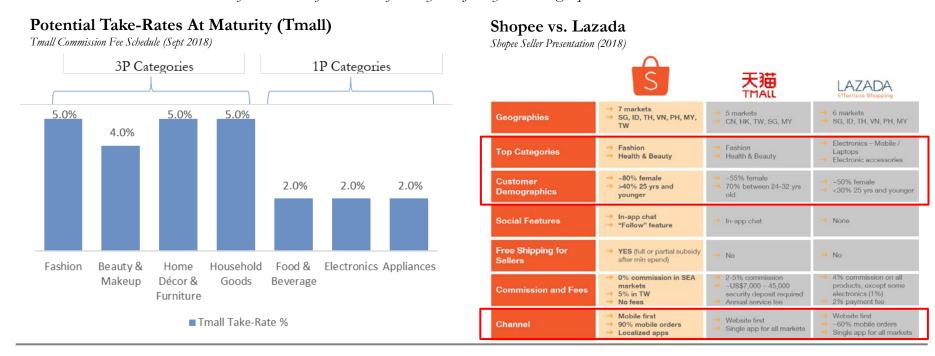
- In Asia, ~67% of internet usage is on Mobile, vs ~42% in the US and ~40% in Europe.
- A mobile-native interface gives Shopee an advantage (purchase friction is lower), with evidence of this in 90% of Shopee orders being made via mobile (vs. just ~60% for Lazada).
- This is also evidenced in 3rd party app rankings, with Shopee taking the #1 spot consistently in it major markets.
- Note: Mobile orders tend to have smaller basket sizes, but higher order frequency. The high frequency keeps Shopee "top of mind" for shoppers, but also results in higher shipping costs as a % of the order size.



Focus on High Margin, Long-tail Categories

- Shopee's strength is in the long-tail, high SKU categories of Fashion, Beauty & Home Décor.
 - These categories fit well with a C2C model, due to the diversity of supply-side offerings.
 - Category margins tend to be much higher too (for example, Fashion and Beauty generally carry ~50-70% value chain margins). One evidence of this is Tmall's higher take-rates on these verticals, which we believe is a good Shopee proxy.
- Fashion and Beauty tend to have higher order frequency rates too, with Shopee at ~3.6x orders per month, Taobao at ~4-5x per month, etc. This compares to Electronics retailers, where order frequency can be as low as 0.2x orders per month (albeit on a much higher Average Order Value each time).

"One of the ways we do that is we look for services that attract a lot of young female users initially. It's a service that could make sense for a whole lot of people, but for whatever reason, the initial user base is young and female. We think that young women are the early adopters of popular culture. They're kind of hit-makers for the rest of society." — Jeremy Liew, Lightspeed Venture Partners



High Margin Category + Leading Engagement + Asset-light C2C Model = \$\$

- Given the higher margins in Fashion and Beauty, it's crucial to note that Shopee has the highest exposure to these categories out of all its competitors.
 - Of Shopee's GMV, ~30-55% is in the Fashion and Beauty categories (varies by country).
 - For example, in Indonesia, this is ~8% higher than Lazada, and ~11% higher than Tokopedia.
- Relatively cheap and discretionary items (like \$2 dresses) are great for markets that are new to E-commerce. The lower order values lower the barrier to trusting online purchases, and the discretionary nature means urgency (i.e. shipping times) isn't as crucial.

Reasons For Shopping on Platforms

Survey of Indonesian shoppers by ecommerceIQ

	⊉blibli ^{∞™}	Bukalapak	JD.ID	LAZADA Effortless Shopping	Shopee	tokopedia
Good reputation	14.8%	13.0%	12.9%	13.7%	10.9%	14.3%
Cheaper product price	6.5%	15.1%	11.0%	13.5%	18.0%	13.3%
More product selection	6.5%	14.6%	5.2%	11.3%	13.0%	16.8%
Authentic products	13.9%	3.9%	19.5%	7.2%	4.2%	4.3%
Good customer service	12.0%	8.9%	5.2%	6.5%	7.7%	8.8%
Fast delivery	7.4%	6.0%	8.6%	10.0%	7.6%	5.8%
Free delivery	13.0%	6.8%	14.8%	10.6%	18.4%	3.2%
Easy return policy	6.5%	5.7%	2.9%	5.4%	4.5%	5.3%
Easy navigation on site	4.6%	7.0%	3.3%	3.8%	3.5%	9.3%
More payment options	9.3%	8.9%	11.0%	13.4%	5.3%	8.4%
Better mobile app	4.6%	9.6%	5.7%	4.4%	6.8%	9.4%
Loyalty program	0.0%	0.3%	0.0%	0.0%	0.1%	0.0%
More promo	0.9%	0.0%	0.0%	0.0%	0.2%	0.9%
More secure	0.0%	0.3%	0.0%	0.1%	0.0%	0.2%

Figure 4: Reasons why shoppers prefer certain online platforms over others; ecommercelQ E-Marketplace Indonesia Survey

Top Categories by Platform Survey of Indonesian shoppers by ecommerce IO

Others

		Bukalapak	JD.ID	LAZADA Effortiess Shopping	S Shopee	tokopedia
Mobile & Electronics	21%	25%	15%	20%	13%	22%
Fashion	17%	16%	11%	19%	24%	12%
Beauty	4%	4%	11%	9%	12%	5%
Health & Wellness	3%	2%	3%	3%	5%	5%
Mom & baby	8%	4%	10%	8%	8%	4%
Toys	5%	5%	5%	5%	5%	9%
Groceries	17%	9%	19%	10%	11%	11%
Lifestyle and Hobby	8%	10%	7%	7%	8%	10%
Home & Living	7%	8%	10%	9%	8%	9%
Sports	4%	6%	3%	4%	3%	4%
Travel	5%	3%	3%	2%	2%	3%
Automotive	0%	7%	2%	3%	1%	4%

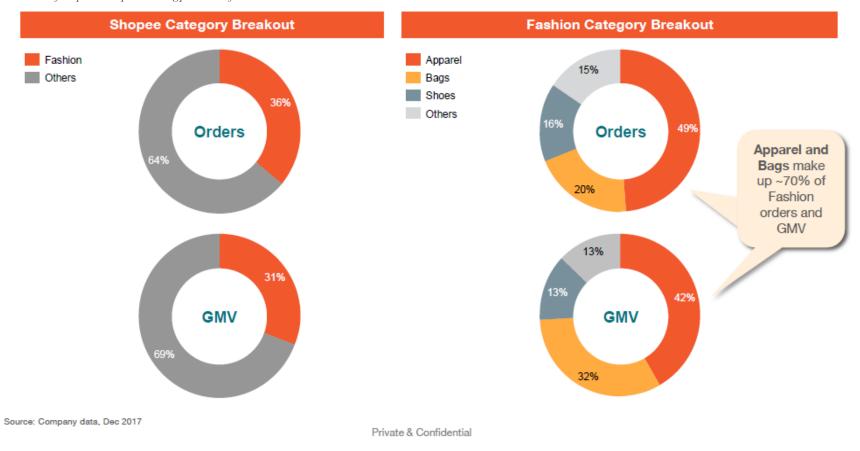
Figure 7: The most popular product categories on ecommerce platforms in Indonesia, ecommerce IQ E-Marketplace Indonesia Survey

Shopee's Fashion GMV

- As of December 2017, Shopee had ~31% Fashion GMV.
 - Of this, 42% was apparel, 32% was bags, and 13% was shoes.
- Also note that fashion orders have smaller than average order sizes, as indicated by 36% of orders but only 31% of GMV.

Shopee's GMV Breakout

Source from private Shopee marketing presenation, for a Southeast Asian retailer



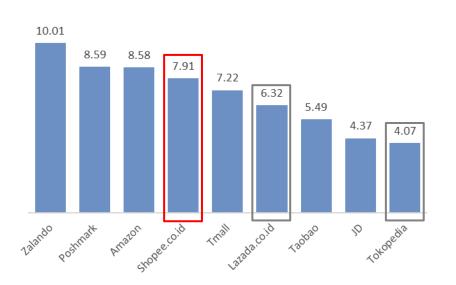
Higher User Engagement...

Compared to competitors, Shopee has among the highest user engagement. For discretionary / "want" categories like fashion or makeup, it's important to keep customers coming back. The more they browse, the more likely they'll find something to buy.

- On an average session basis, Shopee customers spend 19% more time on the platform vs. Lazada, and 77% more time vs. Tokopedia.
- They also visit 25% more pages vs. Lazada and 94% more than Tokopedia. This indicates stronger "browsing" behavior, as consumers "window shop" across products.
- Note: These statistics are for desktop usage only, and we don't have data for mobile app usage behavior. However given Shopee's stronger dominance on mobile, we'd expect these behavioral characteristics to be even stronger on mobile than desktop.

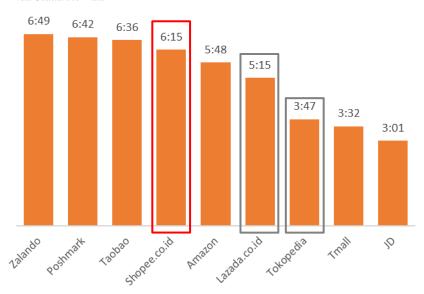
Avg. Pages per Visit (Desktop Only)

From Similarweb Data



Avg. Session Duration (Desktop Only)

From Similarweb Data



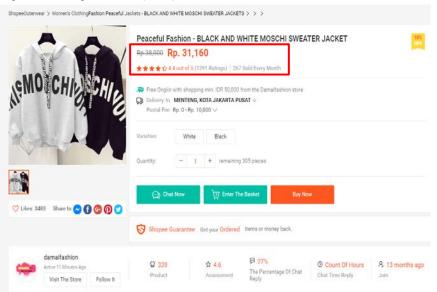
... Leads to a Stronger Platform

Damai Fashion is one of the leading clothing sellers on both Shopee and Lazada Indonesia

- Not only are prices on Shopee are -21% cheaper than Lazada (Rp 31,160 vs. 39,600), but also include free shipping at a lower minimum spend.
- Importantly, Damai has almost ~6x the number of followers on Shopee vs. Lazada (59,255 Shopee vs 10,396 Lazada)
- The number of ratings is also lower, at 1,291 ratings on Shopee vs. 74 ratings for Lazada.
- Note: If there are promotional prices, $\sim 2/3$ are subsidized by Shopee and 1/3 by the seller.

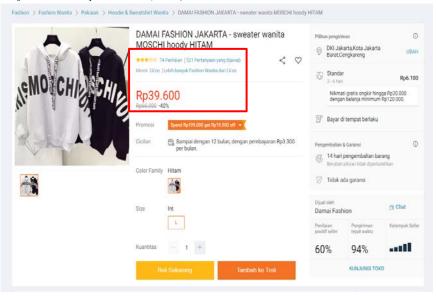
Damai Fashion - Shopee

Shopee Indonedia, September 2018 (LINK)



Damai Fashion - Lazada

Lazada Indonedia, September 2018 (LINK)



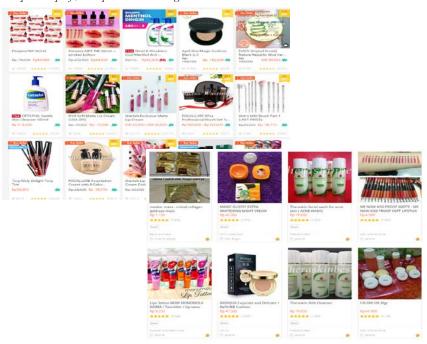
... Leads to a Stronger Platform (continued)

This case isn't unique to Damai or Lazada. We looked at number sellers across the fashion and beauty categories, for Shopee vs. Tokopedia also...

- Shopee consistently had lower prices and higher number of reviews / volume per seller. Versus Tokopedia especially, Shopee's Ratings count was ~10x higher.
- The site aesthetics were also much better on Shopee, with professional / stock photos, vs. self-taken photos on Tokopedia.

Shopee's Superior App Aesthetics

Shopee on top left, Tokopedia on bottom right



Number of Ratings by Platform

Shopee vs. Tokopedia

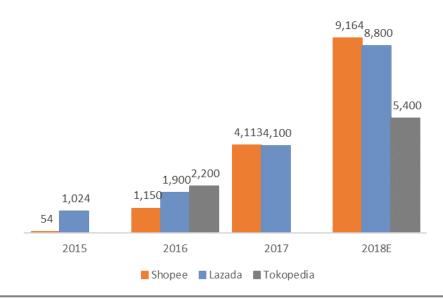
			1 2
Store	Category	Ranking	Ratings
toko	womens fashion	top sales	1,550
toko	womens fashion	top rated	1,765
toko	beauty	top sales	3,157
toko	beauty	top rated	3,780
toko	electronics	top sales	2,173
toko	electronics	top rated	2,128
toko	comp/acc	top sales	2,322
toko	comp/acc	top rated	2,271
shopee	womens fashion	best-selling	15,727
shopee	womens fashion	popular	13,635
shopee	beauty	best-selling	18,358
shopee	beauty	popular	11,794
shopee	electronics	best-selling	22,447
shopee	electronics	popular	15,082
shopee	comp/acc	best-selling	2,304
shopee	comp/acc	popular	1,766

The Race To #1

- We estimate that Shopee is currently neck-to-neck with Lazada in terms of GMV (although Lazada doesn't operate in Taiwan, while Shopee does).
 - Given the stickiness of Shopee's categories, we expect Shopee to widen its lead over the next few years.
 - However, these estimates are VERY rough. Market share data is hard to come by, almost all competitors are private or subsidiaries and don't disclose KPIs, and even market sizing data is often widely different depending on source.
 - "I have a kind of a secondary career in trying to measure these [market sizes] and understand them" Alan Hellawell, Sea Chief Strategy
 Officer
- Indonesia and Taiwan markets have the highest share of Fashion & Beauty categories, as a result of their higher concentration of female customers.
 - Note the high electronics share in Thailand. One can infer this is why Shopee recently launched "Shopee for Men" in the country last month (LINK).

Shopee vs. Lazada vs. Tokopedia GMV's

Data is very rough, for directional purposes only; From private conversations on funding round valuations





Unit Economics – Hope vs. Reality

- The big issue is that Shopee is currently "buying revenues". They're subsidizing shipping costs, with no commissions in most of its countries. They're essentially "pumping up the ecosystem" with external funding, trying to attract a diversity of sellers & buyers.
 - Due to this, they lose money on every customer they acquire not just on the initial CAC, but also on a recurring basis.
 The more their customers order, the more they lose.
 - Since there's no profits on a per customer level today, its almost impossible to do a valuation or IRR on customer
 acquisition spend. Such an analysis involves too many moving parts, and estimates on future take-rates and timing.
- Competition is fierce, so the ability to suffer / being able to withstand more pain than your competitors / having access to funding can be a differentiator in winning.
- Shopee thinks they can break-even by 2020, and achieve the unit economics highlighted below. However this will depend upon the actions of the competitors, and there is a level of game theory involved.

Hopeful Unit Economics

Based on Nick Nash, January 2018 CNBC interview (LINK)

Profit per Customer - Hopeful	
Basket Size	\$ 17.38
x Order Frequency per Month	3.6x
= Monthly Transaction Value	\$ 62.59
x Shopee Take Rate	5.0%
= Shopee Monthly Customer Revenue	\$ 3.13
x Op Margin	40.0%
= Shopee Op Profit, per Customer per Month	\$ 1.25
x 12 months	12
x Retention Ratio	100.0%
/ Customer Acq Cost	\$ 6.00
= Year 1, Return on CAC	150.3%
memo: Pavback Period (months)	4.8

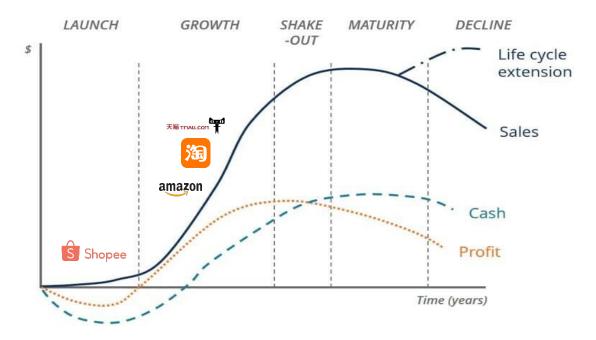
Today's Unit Economics

Hayden Capital estimates

Profit per Customer - Today	
Basket Size	\$ 17.38
x Order Frequency per Month	3.6x
= Monthly Transaction Value	\$ 62.59
x Shopee Take Rate	(6.2)%
= Shopee Monthly Customer Revenue	\$ (3.89)
x Op Margin	(48.3)%
= Shopee Op Profit, per Customer per Month	\$ (5.77)
x 12 months	12
x Retention Ratio	30.0%
/ Customer Acq Cost	\$ 8.00
= Year 1, Return on CAC	(359.5)%
memo: Payback Period (months)	N/A

It's Still Very Early...

- Compared to its competitors' private rounds, Shopee is being valued extremely conservatively by the market. Sell-side firms are currently valuing Garena (the gaming business) at ~\$2BN. Given Sea's ~\$4.3BN total market cap, this implies ~\$2.3BN (0.25x 2018E GMV) for Shopee, assuming the Airpay business is worth zero.
 - Comparatively, Lazada in its previous rounds were valued at ~0.7x GMV, and Tokopedia we've heard is in the process of raising \$1.5BN at 1x GMV.
- However, it's still extremely early in the industry lifecycle, and valuations are almost meaningless given the ample "white-space" for competitors to gain a toehold + the lack of monetization on a customer level.
 - There are a lot of variables necessary to underwrite in the meantime (future take-rates, user order metrics, competitive reaction, etc).
 - The early / less mature the industry, the more access to capital / funding can be a differentiator in eventual success.



Crucial Questions: TBD

This company isn't a "slam-dunk" just yet... there are still a lot of remaining questions to be answered. However, it does offer an interesting case study of an early-stage marketplace, that has all the early signs of being on the track towards "winning".

Will Shopee Remain the Leader?

- At only $\sim 3\%$ e-commerce penetration, there's still a lot of "white space" in the industry. Historically, market shares in e-commerce don't stability until $\sim 10\%$.
- Despite Shopee being the leader now, there's still room for competitors to take share from "greenfield" customers. Access to almost unlimited capital can do a lot (Alibaba & Softbank).
 - How much does access to funding vs localization matter (Taobao vs Ebay in early 2000's).
- Lazada is going through a management / culture shake-up right now, having recently taken full control over the company earlier this year.
- Early signs indicate there's a lot of tension between Rocket Internet ex-employees, and Alibaba's "imported" Chinese employees. For example, Lucy Peng just took over as CEO, and it remains to be seen what impact this will have.

How Sustainable is the Moat? Is it Based Upon Better Technology (defensible), or Simply Being Larger / Network Effects (less defensible, especially in early stages)?

- If based on having better data analysis / technology, how is the comparative ability to attract talent? Supply of tech talent in Southeast Asia is scarce, hence why Shopee is courting engineers from India, and recently opened an office in Shenzhen.
- However, Lazada also has access to Alibaba's resources, which may give them an advantage.

Given These Dynamics, What Do You Do? How do you think about position sizing?

- Do you size it small, and think of it as a late-stage VC investment? The company is post product-market fit, but premonetization.
- Add based on milestones (definitive leader in key markets > gain share in Fashion & Beauty categories > ability to monetize > ramp up of take-rates towards 5% > expand into adjacent categories, etc)?

Contact Information

For More Information Contact Us:

Fred Liu

Managing Partner

Hayden Capital

79 Madison Ave, 3rd Floor New York, NY. 10016

Email: fred.liu@haydencapital.com