MACRO OPS

RESEARCH

08/04/2020: Cardlytics, Inc. (CDLX)

Business Description: he company's platform is the Cardlytics Direct solution, a native bank advertising channel that enables marketers to reach consumers through their trusted and frequently visited online and mobile banking channels. It also provides solutions that enable marketers and marketing service providers to leverage the power of purchase intelligence outside the banking channel. - *TIKR.com*

The Thesis: CDLX can continue to grow revenues at above-average market rates for the next five years. In doing so, they'll leverage their initial investments in their Cardlytics Direct platform and go from loss-making to net income positive. CDLX is founder-led, sports zero debt and $20M net cash and grows at 40%+ per year. Mr. Market's selling the company for 4x EV/Sales. This is much too cheap. A mere 6x multiple on conservative estimates of 2024 sales gets us $2.6B market cap (or $100/share). That would represent a 24% annualized return over the next five years.

Solving Problems for Marketers & Banks

CDLX helps solve marketers' fundamental problems.

The problem for marketers: Marketers increasingly have access to data on the purchase behavior of their customers in their own stores and websites. However, they lack insight into their customers' purchase behavior outside of their stores and websites, as well as the purchase behavior of individuals who are not yet customers.

CDLX also solves fundamental problems for financial institutions.

The problem for FIs: Leveraging our powerful predictive analytics, we are able to create compelling cash back offers that have the potential to drive deeper and sustained use of the FI channels, which we believe reduces customer attrition and increases use of the FIs' credit and debit cards.

CDLX list of FI partners includes:

- BAC
- JPM
- WFC
- Lloyds Bank
- Santander UK

CDLX is growing top-line revenue at 40% a year. Average monthly active users nearly doubled in the last three years. Growing from 54M to 123M.

Income Statement Doesn't Paint Accurate Picture

The company has lost money each of the last three years. This means CDLX flies under-the-radar of most value investors' quantitative screens. That's a good thing for us.

Net losses equaled $19.6M in 2017, $53M in 2018 and $17.1M in 2019. The company's losses aren't due to failing operations or a bad product -- but massive investments in the platform, Cardlytics Direct.

CDLX's Cash-Cow: Cardlytics Direct

CDLX's platform provides a view into consumer spending on a personal, anonymous level. This platform analyzes the data from in-store transactions across multiple accounts (including one in two debit and credit card transactions).

The real magic happens when CDLX applies their proprietary quantitative models to analyze the purchase data. Through their model, they're able to provide a win-win-win for financial institutions, banking customers and marketers.

<u>The Win For Financial Institutions</u>
CDLX benefits financial institutions by providing insights into their own customers' purchasing decisions. These insights allow banks to offer product-specific deals based on what their customers usually purchase.

<u>The Win For Marketers</u>
Marketers benefit from CDLX's platform by measuring the sales impact of their marketing campaigns. Marketers can then use this data to optimize future campaigns, providing higher lifetime value and lower acquisition cost to their clients.

<u>The Win For Customers</u>
CDLX benefits banking customers by showing them advertisements on items or categories they already frequently purchase.

Competitive Advantage #1: High Embedded Switching Costs

One of the reasons I love CDLX's business is due to its high switching costs. The company outlines this idea in its annual report (emphasis mine):

"Our platform was architected with our FI partners in mind and is designed to ensure that no PII ever leaves the FI. No FI partner with which we contract directly has unilaterally terminated its use of our platform. ***We are generally the exclusive provider of native bank channel advertising to our FI partners as mobile and online banking portals are not conducive to supporting marketing content from different vendors.*** *Further, advertising within banks' digital channels requires deep technological integrations, which we believe increases the cost of switching vendors and therefore increases FI partner loyalty to us."*

The last part is critical. The digital infrastructure CDLX sets up with its banking partners is hard to rip out. It's like when Pat Dorsey talks about companies ripping out Oracle databases. It doesn't happen.

CDLX can leverage these switching costs for future price increases or to simply stave off competition. Much like Oracle, it doesn't matter if a competitor has a cheaper, faster product. If the switching costs to rip out CDLX and replace it with a new, shiny product aren't high enough to justify the switch -- the bank won't do it.

Competitive Advantage #2: Network Effects

CDLX also benefits from network effects. The flywheel is simple:

- New marketers create new incentives for banking customers
- This increases engagement with digital banking channels
- Which then attracts more banks to the platform, increasing the value for marketers and customers

On achieving such scale and network effects, CEO Scott Grimes believes the company will analyze 50% of every transaction made by US consumers. That's nuts:

"And at that point, we will see and analyze roughly 1 out of every 2 purchase transactions in the U.S."

Understanding The Various Parties of CDLX's Model

While CDLX's model is basic in nature -- leverage real-time consumer purchasing data from banking institutions to help marketers create better advertising campaigns and consumer incentives -- it's important to understand who these players are, how they're paid and what it looks like under the hood.

Banking Institutions (FI Partners)
Who they are: Separate contracting entity from which CDLX accesses purchase data to feed to their *Direct* platform. They either purchase the data directly or through a third-party (I.e., bank processor or digital banking provider).

How they're paid: The company pays FIs via *FI Shares*. These are negotiated, fixed-percentages of CDLX's billings to marketers (less consumer incentives).

How to track performance: The key metric for FI Partners is *Active Monthly Users (AMU)* on each bank's digital banking platforms. In layman's terms, how many bank customers use their banking apps for transactions, transfers, etc.

This is an important metric for CDLX's success. And over the last three years, they've grown FI MAU's 123% (54.9M to 122.58M).

Marketers
CDLX grants marketers access to their *Direct* platform to provide advertising campaigns to the banking institutions (FI Partners) customers. Let's use an illustration.

Say you bank with Chase Bank and are a regular on their digital banking platform (apps, etc.). Let's assume you frequent Starbucks. Through Cardyltics Direct, a Starbucks marketing team can identify you as a frequent customer and send you real-time advertisements about new Starbucks drinks and deals. These advertisements show up in your digital banking app -- the one you frequently use.

How CDLX Prices Their *Direct* Platform

The company prices its *Direct* platform in two ways:

1. Cost per Served Sale (CPS)

CDLX charges a percentage of all purchases from the marketer by consumers that a) are served marketing and b) make a purchase from that marketer during the campaign period.

The company sets these percentage rates on their expectations of the marketer's ROAS (return on ad-spend).

This is on top of their Consumer Incentive fee -- which is based on how well the company thinks it can drive incremental sales for the marketer.

2. Cost per Redemption (CPR)

Under this pricing model, marketers specify and fund the Consumer Incentive and pay CDLX a separately negotiated (fixed) marketing fee.

As of 2019, CDLX generated 68% of its revenue from its CPS pricing model.

Diving Into Financials

CDLX is a growth story. They've grown revenues 35% per year for the last five years. Like we mentioned earlier, the company's plowing every dollar back into growing their platform. This means negative net income on the financial statement.

But unlike many loss-making, software companies, the earnings trend looks good. CDLX lost nearly $40M in 2015 on $77M in revenue. Last year they lost $17M on $210M in revenues.

What's driving that operating loss reduction? Let's take a look at expense margins over the last five years.

Costs and expenses:
FI Share and other third-party costs
Delivery costs(1)
Sales and marketing expense(1)
Research and development expense(1)
General and administrative expense(1)
Depreciation and amortization expense
Termination of U.K. agreement expense

The above is a list of CDLX's operating expenses. The largest expense (without question) is *FI Share* and other third-party costs.

These costs include the shares paid to banking institutions for access to their digital banking platform (FI Share) as well as the actual purchasing data (third party costs).

Let's take a look at expenses as a percentage of revenues from 2015 to now:

Expense	**2015**	**2019**
FI Share & Third Party	61%	56%
Delivery Costs	6.2%	6.2%
Sales & Marketing	42%	21%
R&D	15%	5.5%
General & Admin	23.4%	17.5%

CDLX has shown an ability to control delivery costs and scale sales, R&D and administrative costs. We can see the effects of investment in the platform through these figures. CDLX doesn't need to spend 15% of its revenue on R&D going forward. They don't need to spend 42% of revenues on sales and marketing once they reach scale.

At that point, each incremental dollar flows through to earnings as the company shifts into *maintenance* mode -- like an Oracle database.

Earnings Inflection: Positive Operating Income in Q4 2019

The company issued a boatload of shares to finance its growth and investment. A cursory look at the EPS figure should be adjusted for the current share counts.

Using 2019 shares outstanding, CDLX lost $1.75/share in earnings. Today, that number's down to $0.72/share. Another way to look at CDLX's transformation is through revenue/share figures. Adjusting for current shares outstanding, CDLX generated $3.26/share in revenue in 2015. Last year they did over $8/share in revenue.

That means they've grown revenue/share by $5.60 over five years (roughly $1.12/share a year). During that same time, they shrunk net income losses by $1.03/share (or $0.20/year).

So, for every $1.12 they grow in revenue they increase earnings around $0.20/share.

We're seeing signs of annual profitable operations. CDLX turned in an operating profit of $1.25M in Q4 2019, and $3.42M in net income ($0.13/share).

Strong Balance Sheet To Support Growth & Downturns

While I love CDLX's business model and top-line growth, I was more impressed with the strength of their balance sheet.

The company has $104M in cash against **zero debt** and only $80M in total liabilities. That's roughly $0.80/share in net cash.

Again, most of this cash came from share issuances -- so it'll be important to see how much further the company dilutes its shareholders. But once operations reach profitable scale, there shouldn't be a need for issuances.

Valuation: EV/Sales Approach

EV/Sales gives us a rough picture on potential valuations when analyzing loss-making companies. CDLX currently trades at 4x EV/Sales. The first question we should ask is "what's an appropriate EV/Sales multiple for a company like CDLX?"

Let's use private SaaS businesses as our first comparable. According to saas-capital.com, the average EV/Sales multiple hovers around 9x. That seems fair. Remember, CDLX is growing top-line revenues 40%+ annually, with rapid MAU adoption and a long runway with myriad new industries of implementation.

Suppose CDLX grows revenue 15%-per-year for the next five years. I know, this is a conservative estimate of future revenue growth. In this scenario, we end 2024 with $423M in revenue. Applying a 9x multiple on those sales gets us $3.8B in EV (versus $1B today). Even if we apply a 6x sales multiple we get $2.54B in EV. That's considerably higher than Mr. Market's price.

A 6x sales multiple doesn't feel farfetched. The company has zero debt, $20M in net cash, growing 40%+ with a sticky, high switching cost business.

Risks

- CDLX depends on a few banks for nearly all their revenues

Rebuttal: As CDLX grows, their current cohort of banking partners will become less a percentage of overall revenue.

- Like their banking relationships, CDLX relies on a few marketers for their revenue

Rebuttal: Same as above. As CDLX grows, they'll diversify their marketer customers, improving customer diversification.

- No long-term contracts with marketers -- must create an incentive to renew with each sale

If CDLX shows signs of decreasing ROAS for marketers, there aren't any contractual obligations for marketers to stay on the platform.

- CDLX relies on third-party data to provide its *Direct* platform

Rebuttal: Cardlytics *Direct Platform* is the entire reason to invest in the company. It's their best product.

- Advertising budgets are seasonal and lumpy. This will result in lumpy sales and earnings figures as a percentage of marketing revenue increases

Rebuttal: Long-term this shouldn't affect CDLX's ability to generate consistently high cash-flow conversions.

- Privacy concerns (via cookies, CCPA, etc.) could harm CDLX's ability to generate insights and monetize their data

This is a real risk, as any legislation related to pro-privacy could remove data tracking abilities for third-party data aggregators. This would inhibit CDLX's ability to generate insights from the data because there wouldn't be any data.

- Consistent insider selling

Rebuttal: The amount that insiders are selling doesn't warrant a red flag concern. If management continues to dump shares and increase the amount they dump, that would be a cause for concern.

Chart Analysis: Cardlytics, Inc. (CDLX)