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UNDERSTANDING THE INVESTMENT FUNDAMENTALS OF THE ONLINE PAYMENTS SECTOR

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Tap, swipe, wave. Technology has made it so wonderfully easy to spend our invisible money.

When was the last time you withdrew money from an ATM? This used to be the quintessential financial transaction, but it gradually has become less critical and thus less common. We'd be willing to bet that if you compared your bank account records from this year with that of even five years ago, the frequency of which you entered a PIN to received cash would have been markedly higher back then.

It makes sense. Why even bother with cash when you have smartphone-enabled e-wallets at your disposal? You not only save time from queuing for your turn at the ATM but also bypass the inconvenience of carrying notes and coins. Online transactions (which include mobile payments) have changed the way we pay for goods and services in our daily lives.

Of course, online payments are nothing new. Amazon has depended on them since 1995 when it was just a virtual bookstore. PayPal launched its money transfer services in 1999. But it is only with the advent of 4G mobile communication coupled with the simultaneous proliferation of smartphones that the online payments business model has come to the fore. Companies in this space need no longer rely on the legacy structure of credit card vendors, conventional retail banks, or even desktop computers.

A NONUNIFORM TREND

Although the general trend today is toward making cashless payments increasingly ubiquitous, the pace, format, and depth of coverage vary quite widely across jurisdictions. Consider Sweden, a developed nation on track to becoming an almost entirely cashless society by 2023. Only about 10% to 15% of point-of-sale purchases made by households use cash and many merchants no longer accept it at all. The same can be said of payments made in China: those who use notes and coins are mostly tourists.

That said, a few notable outliers among the industrial nations remain highly cash-centric, such as Germany and Japan. About 80% of German household point-of-sale purchases are still made using cash. In Japan, the largest coin is worth ¥500 (about US$5), meaning residents have little choice but to lug around pieces of metal. The attachment to physical funds in these countries, however, may reflect their recent traumatic past rather than an inability to embrace new technology.

COMMON CHALLENGES

Despite these variations across jurisdictions, all online payment businesses around the globe face common challenges. One such challenge is disappearing geographic boundaries, which bring opportunity but also more convoluted tax issues. Another is the increasingly real-time nature of society. Satisfying the on-demand needs of consumers creates more intense pressure on hardware infrastructure, which also means much greater opportunity costs for any downtime.

Then there are switching fees. Even if moving to a newer and more efficient service provider may realize significant savings in the long run, stakeholders in the ecosystem may still be unwilling to bear the upfront charges. This is especially true for companies beholden to public shareholders, which often results in an incentive system skewed toward the short term — one always focused on the next quarterly earnings report.

Finally, there's the challenge of security. Although encryption technology is improving by leaps and bounds, so too is the hacking capability of criminals. And in a world in which many proclaim that "data is the new oil," issues of privacy and potential theft of sensitive information are two significant issues that the industry faces.

CASHLESS IS WORTH TRILLIONS

Physical cash may be falling by the wayside, but the amount of money flowing through a myriad of digital channels continues to increase. Total worldwide digital payments by consumers alone (excluding business-to-business) reached US$4.1 trillion in 2019 and is estimated to hit US$6.7 trillion by 2023, equating to a compound annual growth rate of about 12.8%.

This impressive growth rate highlights the upside of the nonuniformity of the cashless trend. Many lucrative untapped markets remain. Against this background, let's move on to a systematic framework for analyzing both the high-level and nitty-gritty aspects of online payment business.

NICHING DOWN

Online payment is a term encompassing many different subcategories. As such, step one is to determine what specific products and services a company provides. See whether the business is a payment gateway, digital wallet, mobile app, or a combination of these services. Then ask what this service

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enables: is it for firms to accept online payments, for domestic and international funds transfer, or for something else entirely?

Answering this question will help you ascertain the company's revenue model. In other words, who exactly is paying the company and what for? Fees are the most common revenue model in the industry, whether it is for transferring monies or enabling digital payments (such as e-wallets). Discover whether the company is offering its services directly to end users, or if it plays a more intermediate function. It also may be licensing its products as white-label offerings to third parties.

UNDERSTANDING DEMAND DRIVERS

Next, probe the market structure. Certain areas can serve as demand proxies for a company's services, so it's worth taking stock of their numbers. For instance, if the firm is a digital wallet, then the size of the retail space is something you would need to study. Ensure that you also research the size and share of its e-commerce activities. If the company is dealing with transfers, then the proxy would be the remittance and fund transfers markets; review the proportion of online and electronic transfers and break it down by both transaction volume and value.

Sometimes, demand drivers aren't so evident. You'll have to dig a little deeper to uncover something a little less obvious. One example is the prevalence of online bill payments. It's a seemingly minor thing that doesn't jump immediately to mind but that could have huge effects on a country's online payments ecosystem.

THE COMPETITIVE LANDSCAPE

Now, it's time to scope out the competition. The online payments ecosystem, being so closely related to the technology sphere, can be brutally Darwinian. Weak companies don't last long, and oligopolistic "winner-take-all" scenarios are common.

So, the first question is, are there any entrenched incumbents and is the company you are analyzing one of them? Examine the market share of the various players by the number of merchants and consumers using their services and also look at whether consumers tend to use multiple competing services.

Then, scrutinize barriers to entry. Often, regulations will prove to be the highest hurdle against new entrants; investigate the licenses and approvals required. Capital requirements (which also may be tied to regulations) are another obstacle.

Finally, in an industry in which offerings tend to be almost homogeneous, you should identify any competitive advantages or points of differentiation a company might have. These could range from fee structure and ease of enrollment to merchant partnerships and interoperability with the primary payment networks and intermediaries, such as SWIFT and Visa. See how this aligns with the firm's customer acquisition strategy; essentially, the question you want to answer is, what makes a merchant or consumer choose the company's services over the competition?

ANALYZING FINANCES AND OPERATIONS

Start with the usual suspects of financial analysis, such as revenue, EBITDA, and margins. Break down this information by types of services, markets, and end users, and contrast them against the firm's user numbers and transaction volume. How do the company's margins shift in accordance with its user and transaction volume? Single out the main margin drivers. Is it the number of merchants, transaction frequency, or size?

Move on to its cost structure. What are its capital expenditures and infrastructure outlays? If the company does not own the payment infrastructure, how is it being charged for riding on third-party infrastructure? Pay attention to the ratio between fixed and variable costs. Next consider customer acquisition, which is paramount but also can be expensive. Delve into the marketing and promotional strategies and see what kind of return is being generated, especially in relation to peers.

On the operational front, go beyond a scrutiny of top-line transactions and customer volume and explore the growth rates of its gross transaction volume (GTV) and gross merchandise value (GMV). Probe usage frequency and per transaction value trends: what picture does this paint of the company's customer stickiness? Compare the percentage of its active and inactive user base to gain insight into the firm's retention strategy, and see how it is using data analytics to improve it. Last, evaluate how the business designs the fee structure for its different types of customers and how it stacks up against the competition.

GAUGING LONG-TERM PROSPECTS

The trend is clear, and the future of online payments is bright. But this broader outlook doesn't necessarily translate to that for individual companies, especially given the competitive nature of the industry.

To better assess the long-term growth prospects of a firm, look at the markets into which it is planning to expand. Is it a saturated space in which cashless payments are already the norm? Study the larger factors that affect a market's potential, such as per capita consumption, working-age population, and the penetration levels of smartphones, internet, and financial products.

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INVEST IN WHAT YOU ALREADY USE

Online payments aren't going anywhere: they're only going to become more prevalent. Use this framework as a starting point for further analysis of this growing industry. You already use these services, so why not move from being a mere customer to an investor as well?

ABOUT THE AUTHORS

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SECTOR ANALYSIS
Online payments industry

01 DEMAND DRIVERS

- Types of payment methods offered
- Services to end-users
- Size of payments/ transfers processed
- Revenue mix by product type
- Share of retail/ e-commerce market

02 MARKET POSITION

- Market concentration: customers vs merchants
- Compatibility with existing systems
- Barriers to entry
- Incumbent advantage
- Ease of adoption and use
- Customer retention programmes
- Operational restrictions

03 STRUCTURAL INFLUENCES

- Population: age and spending patterns
- Bank account and card usage
- Levels of cashless activity
- Ease of access to the internet
- Smartphone penetration

04 GAUGING PERFORMANCE

- Investment in infrastructure
- Growth in transaction value and volumes
- The monetisation of a company's user base
- Inactive customers
- Use of data analytics for business growth
- Use of data analytics for fraud prevention
- Fee structures
- Revenue, EBITDA, & net margins vs. user/transaction growth
- User privacy and cybersecurity
- Level of value-added services

05 ESG FACTORS

- Data centre efficiency
- Efforts made to truly democratise financial services

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COMMON TO THE SECTOR

1. WHICH PRODUCTS AND SERVICES DOES THE COMPANY OFFER?
- a. Does the company offer its services directly to end users?
- b. Is a payment gateway/digital wallet/mobile app available to customers?
- c. Can end users access online/mobile bill payment services?
- d. Are in-store payments at a merchant's premises available to customers?
- e. Does the company offer domestic and overseas funds transfer services to businesses or end users?
- f. Does the company enable service providers to accept online payments from their customers?
- g. Are the company's products and services licensed as a white label offering to third parties?

2. EXAMINING THE COMPANY'S END-USER MARKETS
- a. How large is the retail market in the regions and countries where the company operates?
- b. What is the company's share of the organized retail market?
- c. What is the size and share of e-commerce in the countries where the company operates?
- d. How widespread are online bill payments in the company's key markets?
- e. How big is the remittances and fund transfers market, in terms of both transaction volumes and value?
- f. What is the share of electronic and online channels in funds transfers?
- g. Which other end-user markets contribute to demand?

3. ARE DIGITAL-BASED CITIZEN SERVICES AVAILABLE IN THE COUNTRIES THE COMPANY OPERATES IN?
- a. Which services does the company provide?
- b. Are there any other service offerings in the pipeline in these countries?
- c. How extensive is current usage and how it is evolving?

4. WHAT IS THE COMPANY'S REVENUE MIX?
- a. How much revenue does the company earn from payment gateways, wallets, bill payments, fund transfers?
- b. What size is the company's revenue from other components? These include customer fees, merchant fees, licensing revenues.

5. HOW WILL MACROECONOMIC FACTORS SHAPE THE PAYMENTS MARKET?
- a. What is the breakdown of the working age population in the company's markets?
- b. How significant is per-capita consumption spending in these markets?
- c. What is the penetration level of financial products, such as bank accounts and payment cards?
- d. What is the share of non-cash modes of payment in different end-user markets?
- e. Which elements constitute the non-cash segments of the company's markets?
- f. How much is known about the demographic profile (age, socio-economic category, geographic location) of non-cash users?

6. INTERNET AND MOBILE PENETRATION
- a. What are the penetration levels of internet, mobile telephony and smartphones in the company's key markets?
- b. What is the per-capita usage of internet in terms of duration of use and amount of data in these markets?
- c. How do the cost of internet access, mobile telephony and smartphones compare with the per capita income levels?

7. COMPETITION AND MARKET CONCENTRATION
- a. How large is the company's customer base? How is it spread across regions and countries?
- b. How many payment-service providers operate in the company's markets?
- c. What is the share of top-three players in terms of number of users, transaction volumes and value?
- d. How many of the company's customers also use competing services?
- e. How many different services does a customer typically use?
- f. When looking at all available options, what attracts customers to the company's services?

8. WHAT IS THE LEVEL OF COMPETITION AND MARKET CONCENTRATION CONCERNING MERCHANTS AND BILLERS?
- a. How many merchants and billers accept the company's payment service?
- b. What is the share of top-three payment providers in terms of number of merchants and billers, transaction volumes and value?
- c. How many of the company's merchants also use competing services?
- d. How many different services does a merchant typically use?
- e. What makes a merchant choose the company's services from the available options?

9. HOW COMPATIBLE ARE THE COMPANY'S OFFERINGS COMPARED WITH EXISTING SYSTEMS?
- a. What are the different payment methods currently in use in the company's key markets?
- b. In these markets, which are the primary payment networks (like SWIFT) and intermediaries (like VISA, Mastercard)?
- c. Is the company's payment platform linked to or interoperable with major payment networks and intermediaries?

10. WHAT ARE THE BARRIERS OF ENTRY TO NEW PLAYERS? WHAT ARE THE LICENSING REQUIREMENTS AND ASSOCIATED COSTS?
- a. Which licenses and approvals are required in the countries where the company operates?

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b. What are the criteria that need to be satisfied to obtain the required licenses and approvals?
c. What is the cost and time involved?
d. Are there any caps on the number of licenses issued for payment services?
e. Are the licenses and approvals exclusive? Are they transferable?
f. Are the company's licenses renewed periodically? Will the company experience any difficulties when applying for a renewal?
g. How strongly does the network effect favour incumbents and act as a robust barrier for new entrants?

11. HOW MUCH INVESTMENT IS REQUIRED TO SET UP AND MAINTAIN THE PAYMENTS INFRASTRUCTURE?

a. Does the company own the infrastructure required to support its payment system? If not, who provides it and what is the cost structure?
b. How much does it cost to set up and maintain infrastructures, such as servers, communication networks, software and security systems?
c. What is the company's transaction handling capacity currently? How does it plan to increase this?
d. Has the company experienced disruptions to its service due to higher transaction volumes than its systems can handle? How does it plan to minimize these disruptions in future?
e. What is the company's capex plan for technology and operations for the next few years?

12. HOW DOES THE COMPANY'S SERVICE COMPARE WITH THAT OF ITS COMPETITORS?

a. What is the company's sign-up process for customers and merchants?
b. How much time and cost is involved?
c. Does the company offer any sign-up incentives for customers and merchants?
d. What Know Your Customer norms need to be fulfilled by the company's customers and merchants?

13. HOW 'STICKY' ARE THE COMPANY'S CUSTOMERS?

a. How many of the company's users continued to use its services after the initial sign up?
b. What is the customer retention rate after milestone timelines, such as a month, quarter, and year?
c. How does the company's per-user transaction volume and value look after these milestones?
d. What is the company's strategy to improve customer retention and stickiness?

14. WHAT PROPORTION OF THE COMPANY'S USER BASE IS INACTIVE?

a. How long does it take for a typical user to become inactive?
b. Why do customers stop using the company's services?
c. Does the company have a strategy to resurrect inactive users?

15. WHAT RESTRICTIONS DOES THE COMPANY PLACE ON TRANSACTION FREQUENCY OR SIZE?

a. Are these restrictions determined by the company or are they mandated by the regulator?
b. How are these restrictions determined?
c. What are the regulations governing cross-border payments?
d. How much transaction volumes and value are lost as a result of these restrictions and regulations?

16. HOW HAS THE COMPANY PERFORMED ON OPERATIONAL MEASURES? HOW DOES THIS COMPARE WITH ITS PEERS?

a. What has been the growth rate in the company's customer numbers?
b. What has been the growth rate in the company's merchant and biller base?
c. How have typical usage frequency, transaction volume, aggregate and per transaction value evolved?
d. What are the growth rates of the company's gross transaction value (GTV) and gross merchandise value (GMV)?
e. What type of products and services does the company offer to its merchants and billers?

17. WHAT ARE THE VARIOUS COMPONENTS OF THE COMPANY'S REVENUE?

a. Does the company charge customers for using its services? If so, what is the fee structure?
b. How much does the company charge merchants? What are the fixed and variable components?
c. What are the initial set-up costs?
d. Is there a monthly fixed cost to the merchant in addition to the transaction fees?
e. What is the structure of the company's transaction fee in terms of fixed and variable components?
f. How does the company design the cost structure for its customers and merchants?

18. HOW SUCCESSFUL HAS THE COMPANY BEEN IN MONETISING ITS USER BASE?

a. How does the company's customer/merchant share compare with its share of transaction volumes and value?
b. How does any expansion in user numbers and transactions compare with the company's revenue growth?
c. What are the company's EBITDA margins?
d. What is the correlation between GTV/GMV and EBITDA margins?
e. How well does the company maintain its margins as GTV/GMV grows?
f. What drives the company's margins: more customers, more merchants, more transactions, more frequent transactions or larger size of transactions?
g. How has the company designed its fee structure?
h. How has the company utilised data analytics to improve customer experience, monetization and fraud prevention?

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19. PROMOTIONS AND LOYALTY PROGRAMS

a. Does the company run promotions and loyalty programs for its customers?
b. How useful are these programs in retaining customers, increasing their engagement levels and expanding transaction volumes and values?
c. How sustainable are these programs?
d. How useful are these programs in improving customer stickiness in the long term?
e. How does the company prevent abuse of these loyalty programs?

20. VALUE-ADDED AND DIFFERENTIATED SERVICES

a. What value-added and differentiated services does the company provide to its customers and merchants?
b. How commonly and how frequently are these used?
c. What is the cost involved in providing these services?
d. How much additional usage and revenues do they bring in?

21. DATA AND PRIVACY OF CUSTOMERS AND MERCHANTS

a. Does the company store data points about its customers, merchants and transactions?
b. Have there been instances of loss, theft of data or attempts to sabotage or breach of the company's systems?
c. What measures does the company take to prevent, detect and avoid cyber sabotage?
d. How does the company deal with payments that are disputed by the customer?
e. How does the company prevent, detect and manage fraudulent transactions?