PAYMENTS
AND THE PLATFORM ECONOMY
PLAYBOOK

The monthly Payments And The Platform Economy Playbook, a PYMNTS and Yapstone collaboration, aims to help platform payments decision-makers identify and manage the risks and rewards inherent in optimizing their operations and navigating real-time challenges.

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what's
inside

More than 2.14 billion people are expected to buy products and services online by 2021. Marketplaces are looking to encourage greater consumer engagement and drive checkout conversion, experimenting with new ways to provide customers with friction-free payment experiences and adding support for multiple methods that help them meet customers' preferences. This is increasingly the case in emerging markets like India, where consumers and businesses are getting more comfortable with digital transactions, but does not mean that everyone wants to pay the same way.

Mobile wallets, direct debit and other payment methods are popular choices among consumers in other regions, however, meaning marketplaces cannot employ a one-size-fits-all solution if they want to remain competitive.

Online marketplaces are also looking for new ways to enhance their security. Many are turning to advanced learning technologies like artificial intelligence (AI) and machine learning (ML) to combat fraud without compromising user experience.

What's new in the platform economy

Payment providers are looking to expand their presence into new markets as the platform economy grows. Facebook-owned WhatsApp is continuing its campaign to launch a payments service in India, where it has 400 million users, but Facebook is still awaiting regulatory approval for the service's launch.

Entities in India are also exploring new ways to engage customers in the expanding platform economy. The nation's Commerce Ministry is making moves to keep pace as these foreign marketplaces enter the country and boost competition. It is proposing to open the Government e-Marketplace (GeM), its online marketplace, to the public, which would allow consumers and businesses to transact in addition to the government employees and departments that already have access.

Solution providers outside of India are offering their own tools to help marketplaces serve consumers when making cross-border transactions. Payment services provider Alipay has formed a partnership to speed up payments between Africa and China. The collaboration will enable African merchants to accept payments through Alipay's mobile app.

For more on these stories and other headlines from around the platform economy, read the Playbook's News and Trends section (p. 15).

Using AI for more convenient visual shopping experiences

Millennials and members of Generation Z are increasingly visual shoppers, often relying on platforms such as Instagram and Pinterest to find inspiration on what to wear or buy. Lihi Pinto Fryman, co-founder and chief marketing officer for visual AI company Syte, believes that retailers looking to appeal to these generations must become more visual. For this month's Feature Story (p. 9), she details the importance of visual AI in the changing retail world — especially as millennials gain more spending power.

How thredUP is using AI to create more personalized experiences

The online secondhand clothing market combines low prices and products with ecofriendly missions, making it especially attractive to thrifty, environmentally conscious millennials. This segment is expected to hit $51 billion in value by 2023, meaning secondhand marketplaces must find new ways to make the shopping experience as personal and convenient as possible, according to Chris Homer, co-founder and chief technology officer for online resale marketplace thredUP. Visit the Playbook's Case Study (p. 23) to learn more about how thredUP is personalizing its site's shopping experience with AI and other tools.

by the
numbers

$30B

Projected value of the global payment security market by 2026

33%

Portion of payments to EU merchants that could fail once SCA launches

$10.7T

Estimated value of the digital payment market by 2026

66%

Share of consumers that rate security as the most important part of the online checkout process

20%

Expected CAGR of the global digital payments solutions market leading up to 2026

feature
story

feature
story

An AI-Powered Visual Shopping Experience For Millennials, Gen Z

Retailers looking to engage tech-savvy millennial and Gen Z consumers are quickly doubling down on their efforts to offer more visual content and enhance their products' and services' discoverability. The need for fast, visual-based search systems is filtering into the mainstream, with Google recently revamping its Image tool to include a new user interface allowing shoppers to compare product images.

Lihi Pinto Fryman, co-founder and chief marketing officer for visual AI software-as-a-service (SaaS) company Syte, stated that advanced learning tools like AI can enable such experiences, making the overall process more seamless and user-friendly.

"Millennials [see] hundreds, sometimes thousands of images [on] their mobile [phones] every single day, and we wanted to allow them to use those images to interact with their favorite retailers, brands [and] shops," she said.

Syte uses AI-powered visual technology to scan product images and provide end users with results closest to the screenshots or photos they sent to the retailer.

"[Users do not] have to explain what they're looking for, or what made them fall in love with that item," Fryman explained. "All they need to do is upload an image and find their inspiration [on the site]."

She recently spoke with PYMNTS about why visual search is becoming critically important for retailers and how AI plays a key role in the development of those search tools.

AI and the rising importance of visual shopping

Syte provides retailers, including Marks & Spencer and Conforama, with visual AI technology that allows them to move away from text-based search experiences to ones that rely more heavily on images. Fryman noted that this can significantly change the customer experience, which no longer requires shoppers to narrow their searches with terms and filters. They can use this software to simply share an image with the retailer instead.

Users can screenshot products they found on Instagram, Pinterest or similar social media apps. These images can be uploaded with Syte's camera tool, which uses AI technology to display visually similar products on retailers' platforms.

"It might not be the exact same product, because maybe it's something that an influencer is wearing and [it] costs $5,000, but it will give the retailer a chance to show you all of the similar-looking items within [its] collection," Fryman said. "It's really connecting the [product] inspiration from social with the retailer's collection."

A survey conducted last year found that 62 percent of millennials prefer visual search over other search methods. Providing such tools will be the next major challenge for retailers, which need to maintain more traditional search tools in the meantime. Visual

AI has a role to play in text-based searches as well, Fryman noted. The technology can be utilized to recognize icons for colors, sizes and shapes, as well as "deep tagging." This allows retailers to better categorize the content for the end user, as it assigns each item in their inventory searchable tags such as color, design and product material.

Visual AI technology can also connect online and offline experiences. Online shoppers expect to have the same digital conveniences in store as on the web, and may want to quickly search stores' inventories. Visual AI could offer such a solution, easing transactions for clerks who previously had to remember what was in stock.

"Think about a tablet that is placed inside a brick-and-mortar store," Fryman said. "The [sales-people] in store, sometimes they don't know [if an item is in stock] or they're too busy. They don't know everything that is available in the store at any given moment, especially for large retailers. Imagine that you can go into a store, upload any image that you see on social, for example, into [its] tablet, [which] will show you if [it has] similar looking items available in that store. ... So, it's really connecting you, again, all through images, to the products that you want in real time."

The millennial influence on the future of retail

The importance and popularity of visual search will continue to grow as millennials and Gen Z consumers age and gain more spending power.

"We've gotten used to searching textually, because that was what was available for us, but I think that voice and visual together will become the next way of searching," Fryman said. "We live in a visual world, we live in our phones and we see images all of the time and we interact with images — especially the younger generations. That will be the way that [they] interact and they search for what they want [in the future]."

Visual AI and search also has the potential to pair with other technologies, like virtual reality (VR), moving forward. A future in which consumers can search for clothes, use VR to see items on their bodies and make purchases all within minutes may not be far off. All that remains is seeing which retailers will get there first.

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Fraud and new technologies

Poshmark, StockX report data breaches

Online marketplaces are scrambling to prevent data hacks. App-based social commerce platform Poshmark and sneaker exchange platform StockX recently reported breaches by unknown third parties. The websites are resetting customers' passwords or urging users to do so themselves to prevent account takeovers. No financial information was stolen in the hacks, though Poshmark reported that email addresses, user IDs and social media account information may have been compromised. StockX has not yet revealed which of its information items were compromised.

Breaches are becoming more expensive for platforms to fix. A recent study found that the average cost per incident for a retailer is around $1.84 million, and requires an average of 228 days to identify.

BBB warns against cashier check fraud

Marketplaces are also dealing with legacy methods of fraud, specifically those that rely on checks. The number of false check complaints sent to agencies like the Internet Fraud Compliant Center has been steadily rising since 2014, reaching 29,513 in 2017, according to a report from the Better Business Bureau (BBB). More fraudsters are testing such scams on marketplaces with individual sellers and buyers, such as Craigslist, eBay and Facebook Marketplace. They send customers cashier checks for more than the necessary amount, ask for a return of the extra funds and disappear by the time the checks are discovered to be fake.

Fraudsters are attracted to these schemes because there is a larger-than-normal gap between when money is sent to customers and when it is verified. Cashier checks need to route through clearing houses before they can be fully vetted, a process that can take up to two weeks. Bad actors can make off with their ill-gotten funds long before that time is up.

Marketplaces should turn to ML, AI to protect against frauds

Protecting against both new and old fraud attempts has become a necessity as online marketplaces begin representing a greater share of eCommerce sales. A recent study found that 60 percent of all fraudulent online payments are sent through eCommerce transactions, and the possibilities are endless for fraudsters as online marketplace sales in the United States are expected to reach $40 billion annually by 2022. Marketplaces thus need to deploy new solutions — including AI and ML — for identity verification. Quickly verifying customers and transactions increases not only security, but also consumer trust. Another study found that 67 percent of consumers were more likely to do business with online sites that can guarantee shoppers' identities — a win-win situation for online marketplaces.

NakedPoppy uses AI for customer, product matching

AI has definite potential for fraud protection, but many retailers are relying on it for other use cases. Makeup marketplace NakedPoppy is using an AI-driven personalization tool to quickly match customers with the right products. The tool takes information from consumers' questionnaire answers, photos of their skin tones and personal information like skin color, type, age, eye color and allergies before recommending goods. The company, which just launched two months ago, is also using digital technology to screen its products for harmful chemicals.

AI-based recommendations and insights are becoming more common for retailers and eCommerce sites. Retailers and customers alike are finding that AI is adding more speed to the checkout process as well as boosting security.

Marketplace and payment news

Etsy acquires online musical instrument marketplace Reverb

Digital marketplaces are seeking additional ways to expand their market shares as platforms for all

types of goods spring up online. Handmade goods platform Etsy recently acquired Reverb, an online marketplace for musical instruments, to make its platform more enticing to users. The acquisition totaled $275 million.

Reverb allows buyers and sellers to post and purchase vintage, used and new musical instruments of all types. A press release noted the platform will continue to operate as a standalone marketplace outside of Etsy, and the latter hopes the acquisition will differentiate it from other online marketplaces that sell a greater variety of goods.

Cassava FinTech International launches social payment platform Sasai

Marketplaces are also looking to differentiate themselves with new digital payment tools as consumers seek out quicker ways to pay. Cassava FinTech International (CFI) recently rolled out Sasai, a "social payment platform" available for both individual consumers and businesses. Sasai works in tandem with the region's mobile network operators (MNOs) and features instant messaging and mobile payment capabilities. The app was made available to download on the App Store and Google Play earlier this month.

CFI plans to stagger the release of additional services over the next year, including new consumer features and the addition of partner services. Its payment options will be made available through

CFI's partnership with the Econet Wireless Mobile Network Group.

India's rapid payment changes, growth

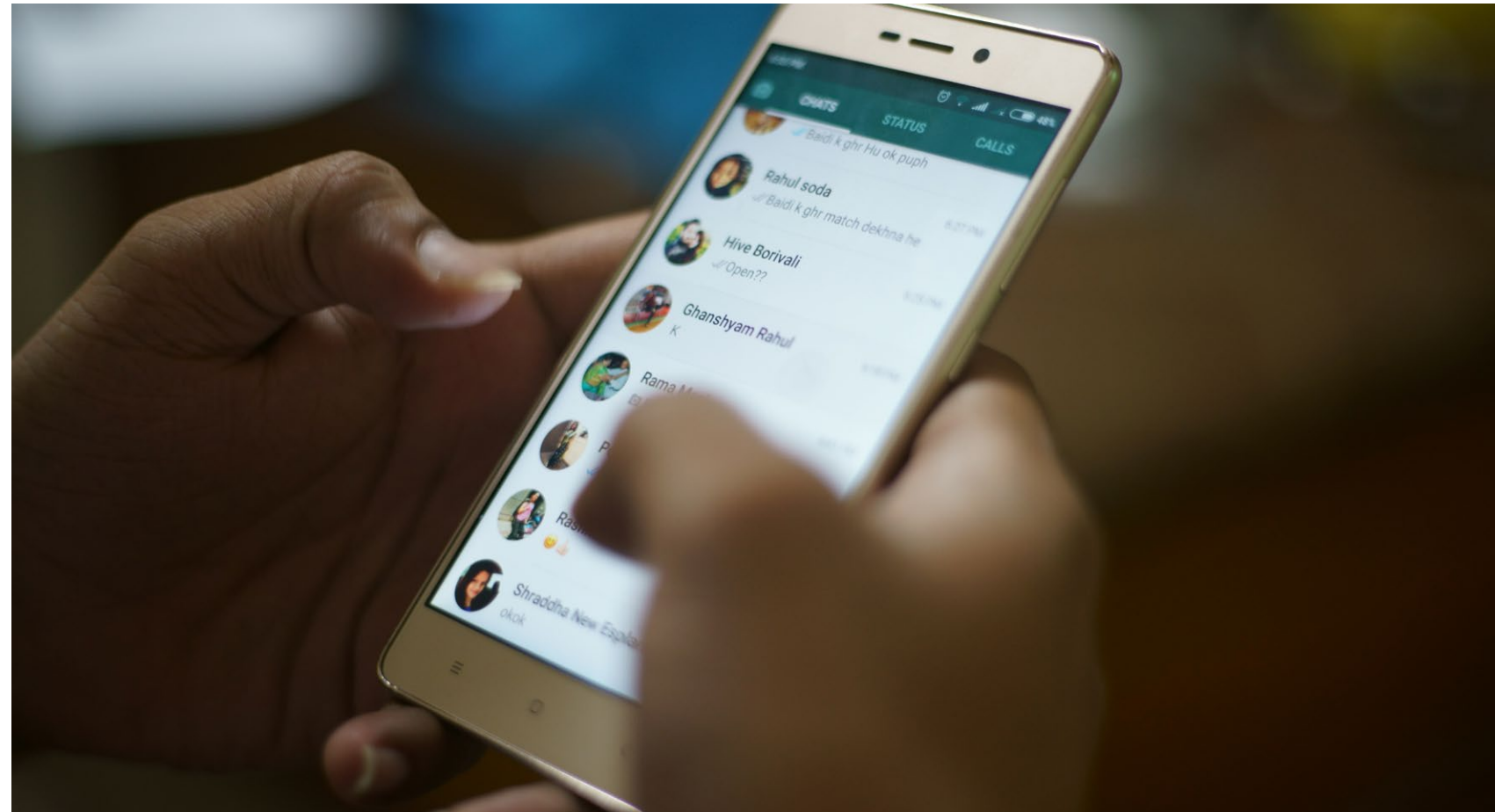### Indian Commerce Ministry may open marketplace to the public

India is facing a rush of marketplaces looking to capitalize on a new wave of online shoppers, and its Commerce Ministry has a plan to remain competitive. The department is proposing adding a business-to-consumer (B2C) retail option to its Government e-Marketplace (GeM) offering, which is currently only available for public sector units and government departments. This component will allow GeM and the Indian government to directly compete with the foreign marketplaces — including Amazon, Facebook Marketplace and Walmart's Flipkart — that are entering the country. GeM presently offers more than 1 million products, hosts approximately 260,000 sellers and serves nearly 37,000 government officials.

The Indian government plans to roll out the B2C option in three stages, beginning with access for private entities that work with government departments or under government contracts. The second stage will allow such private entities to purchase products in bulk, and the third will open GeM to individual buyers.

Paytm fends off Google Pay, PhonePe as transactions decline

Indian payment providers like Paytm are busy dealing with the effects of such competition, too. The company saw a decline in transactions processed on the Unified Payments Interface (UPI) last month, and usage for competing services Google Pay and PhonePe both saw spikes during that same time frame. Paytm saw 140 million UPI transactions during July, which only accounted for a 15 percent share of all transactions on the platform. Google Pay and PhonePe accounted for about 300 million transactions apiece, or approximately a 35 percent share. Paytm still has nearly 70 percent of the total market share for digital payments in India, including both

PayMate is hoping to help. The company works with businesses to digitize and automate payments, recently [raising](#) $25 million during a funding round. The funds will be used to build out PayMate's platform and expand its operations throughout India and other international markets.

The startup currently works with small and medium-sized businesses (SMBs), digitally managing invoices and payments from their vendors and end customers. It also developed a lending product for SMBs, born out of its acquisition of lending technology startup Z2P Technologies last year. The startup will rely on Z2P's lending stack to provide SMBs with secure financing options, while also using transactional data to determine offers.

New markets, features and industry challenges

Flutterwave, Alipay team up on Chinese, African digital payments

Consumers are looking for easier ways to send international payments to small businesses, freelancers and gig workers as the sharing economy continues to grow around the globe. Chinese mobile wallet and payments platform Alipay is [pairing](#) up with Nigeria-based B2B payments startup Flutterwave to facilitate payments between the two markets.

This partnership would enable the companies to better capture a piece of the approximately $200 billion in Chinese-African trade.

Alipay has a global network of more than 1 billion active users, many of which are based in China. These users can now make payments to Flutterwave's 60,000 merchants. Payments will quickly arrive into merchants' accounts under the partnership, though the company will charge 3.8 percent on international transactions. This move follows an earlier partnerhip between Flutterwave and card network Visa that enabled the development of GetBarter, a consumer payment service for Africa.

OfferUp mobile marketplace develops 'hold' feature for payments

Mobile marketplace OfferUp has [created](#) a new "hold offers" feature to help facilitate trust between buyers and sellers. The feature allows buyers to reserve items with authorized payment methods before meeting up with sellers. Payments are completed via in-person QR code scans once items are exchanged. The company hopes the feature will grant it a more competitive edge over other marketplaces such as Craigslist, eBay and Facebook Marketplace. OfferUp has also been steadily expanding the number of payment methods it can accept and now supports mobile wallets like Apple Pay, Google Pay and Samsung Pay.

online and offline merchants, according to a recent statement by company officials.

WhatsApp awaits regulatory approval before payments app release

India is currently an attractive market for digital payments, and providers are moving quickly to stake their claim. Facebook-owned WhatsApp is among those looking to launch commercial payment features in the country, but the company is still [waiting](#) for final regulatory approval. The plan

was to launch WhatsApp Pay within the year, but Facebook has yet to give an official release date. India is WhatsApp's biggest market with 400 million users, and the country would be the first to gain access to the payment app.

Indian B2B payment startup PayMate raises $25M

Smaller companies within India are looking for ways to enhance their digital payment processes, and business-to-business (B2B) payment startup

case
study

case
study

How Secondhand Marketplace thredUP Is Using AI To Personalize Shopping

Today's shoppers can find eCommerce niches for just about anything for which they are hunting, whether they are searching for the lowest price tags or products with ecofriendly missions. One-third of Gen Z members and more than one-quarter of millennials will make secondhand purchases in 2019 due to environmental concerns and cheaper prices, for example. The online thrifting market combines both of these factors, making it especially popular among both demographic groups. It is set to rapidly expand over the coming years, too, climbing from a valuation of $24 billion in 2018 to $51 billion by 2023.

Online marketplaces for both regular and secondhand retail are facing more competition as demand continues to grow. Thrift shoppers expect the same level of personalization, choice and quality on secondhand websites that they receive anywhere else, and these marketplaces must deliver those experiences in ways that do not sacrifice profits.

Chris Homer, co-founder and chief technology officer for online resale site thredUP, believes online

thrift shops must get creative and inspire their target audiences to think secondhand before they can maintain consumer satisfaction and engagement.

"I think a big part of that is making sure that there [are] a variety of ways to engage and search the inventory," he said.

Homer recently spoke with PYMNTS about how thredUP is engaging customers with new channels and ways for customers to shop, including at physical stores and through AI tools that personalize consumers' online experiences.

AI and the importance of personalization

Secondhand marketplaces must enable experiences and shopping processes that are tailored to customers' needs if they want to win them over and retain them. thredUP personalizes its services with AI offerings that generate recommendations and position sellers' goods in the right categories and channels. The technology has also been used to automate the production of products such as Goody

Boxes, which provide consumers an assortment of clothes based on their interests.

"When we started [Goody Boxes in 2017, they were] very manual to begin with — stylists [did] all of the work," Homer said. "I imagine, in the future, some of [the boxes] will even be completely automated. I imagine there will almost always be a human in the loop in that sequence, but it will be less and less in terms of the selection and probably more of a review, tweak and approve type of workflow."

thredUP is now examining how it can bring more sophisticated AI into other areas of its marketplace, such as visual search optimization. This would use AI to properly tag and codify items while also relying on customers' mobile cameras for more engaging experiences.

"I think there [are a lot] of opportunities to give people the power to search based on the visuals they see [through the camera," Homer noted. "If it's not through the camera, you can imagine that you're browsing another app like Pinterest or Instagram [while also] being able to share what you see in the thredUP app and then having a search based on that. That's some of the more advanced image recognition AI that we'll definitely bring to mobile in the future."

Customer satisfaction and the importance of brick-and-mortar stores

thredUP is also taking an innovative approach to expanding its presence in brick-and-mortar retail.

The marketplace has several storefronts in the San Francisco Bay Area and has recently announced a partnership with retail giant Macy's. thredUp will place its goods in approximately 500 square feet of space at the latter's store locations. Homer explained that the goal of these brick-and-mortar locations is to offer greater engagement opportunities between buyers and sellers on the platform. thredUP is also looking for ways that AI and ML can help enhance both parties' physical shopping experiences.

"[We believe] thredUP is the most convenient, easiest place for you to clean out your closet, and there is a lot of demand for that supply," Homer said. "What we want to have is a broad network of partners where we can bring them the right type of inventory for their storefronts, or online through our [platform] or through various listing services like eBay and other places where we can maximum the value of those items for our suppliers. It's going to be a critical part of our path forward — the breadth of different ways that we find homes for these items."

It is unclear whether bringing together physical and online channels will provide buyers and sellers with higher levels of satisfaction, and the same can be said of AI's future applications in the space. Consumers will likely always have clothing they want to sell, however, and there will likely always be those willing to buy.

about

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PYMNTS.com is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way in which companies in payments share relevant information about the initiatives that shape the future of this dynamic sector and make news. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovation that is at the cutting edge of this new world.

yapstone

Yapstone is a provider of online and mobile payment solutions for global marketplaces, software, and large vertical markets, powering electronic payments for sharing economy platforms, such as HomeAway® and VRBO®, software companies, such as Kigo®, and thousands of apartment and vacation rental companies, homeowners' associations, self-storage companies, and many other markets. Yapstone processes many billions of dollars annually and has been recognized on the Inc. 5000 list of Fastest-Growing Private Companies for eleven consecutive years, as well as San Francisco Bay Area's Best and Brightest Company to Work For by the National Association for Business Resources. The company has raised over $120 million from investors including Premji Invest, Accel Partners, Meritech Capital and Mastercard. Headquartered in Walnut Creek, California, Yapstone has additional offices in Santa Monica, California and Ireland.

Feedback

If you have general feedback or questions, please contact us at platformeconomy@pymnts.com.