

# Citi Ventures is betting on cars that pay their own bills, and its co-head of investing envisions a future where your devices make payments without you

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**Ramneek Gupta, managing director & co-head of venture investing at Citi Ventures** Citi Ventures

- **Ramneek Gupta, co-head of venture investing at Citi Ventures, sees Square, which Citi Ventures has invested in, as an example of companies finding ways to do more than just process transactions.**
- **Gupta also sees a future with machine-originated payments. "I think payments will start to get initiated from some of these devices. It's the natural next step," he said.**
- **We spoke to investors at Andreessen Horowitz, Bain Capital Ventures, Citi Ventures, and Insight Partners about where they see the next innovations and opportunities in payments tech.**

Ramneek Gupta, the co-head of venture investing at Citi Ventures, has his eye on machine-initiated payments, and thinks companies will have to find creative ways to use payments data to make money amid pressures on revenues of simply processing transactions.

Gupta joined Citi in 2011, and has led investments in companies like payments processor Square, electronic-signature startup DocuSign, and ride-hailing company Grab.

Here are some of the innovations Gupta expects in the coming years, and how thinks payments companies should respond to a changing value chain.

## **A future with non-human payments**

"One is our portfolio company Square, because they've made payments exciting," Gupta told Business Insider.

"Meaning, it was always backwater, it was always a low-margin thing. It was always something that people had to deal with, but nobody cared for until they came on the scene.



### **Square offers merchants contactless points-of-sale** Square

"Square started in physical point-of-sale products, and has since launched peer-to-peer transfer service Cash App and small business lending arm called Square Capital.

"That's one reason why I think of them as very innovative, in the sense that they showed that payments can be utilized for many other things and create a value-added service package that is oftentimes multiples of the value that payments alone can get," Gupta said.

Looking toward the future, Gupta noted that startups are experimenting with artificial intelligence and machine learning to equip inanimate objects with the ability to pay for things themselves.

"The other area that is a little bit nascent today but I think there will be a lot more value creation from the startup ecosystem - is the emergence of non-human or machine-originated payments," said Gupta.

"As more and more devices on the edge get smarter and have their own existence, in that they can make certain decisions on behalf of their owners, I think payments will start to get initiated from some of these devices. It's the natural next step," Gupta said.

Gupta expects these machine-initiated payments to surface in the next two to three years. CarlQ, another one of Citi's portfolio companies, is exploring payments initiated from vehicles without the use of a credit card.



"They will certainly be able to, or will have to be able to, make decisions on their own vis-à-vis their own health, their own maintenance, whatever the case may be. CarlQ is building the infrastructure from the verification to security to payment execution and processing for that future," said Gupta.

The so-called "Internet of Things" (IoT) has gained traction in the car insurance space, for example, where using IoT, insurers can monitor a driver's habits to determine premiums.

To be sure, for IoT payments to really take hold, the current payments infrastructure needs work, especially as it relates to automating identity verification and fraud monitoring functions, Gupta said.

### **Payments as a service that's given away for free**

"There is much more value in the information and the data that payments provide than the actual payment processing itself," Gupta said.

Payments processors charge fees for the movement of money from point A to point B. Interchange fees, for example, are charged to a merchant when a customer uses a credit or debit card to pay.

Gupta anticipates that ultimately, payments providers won't be charging for each transaction. "I think payments is going to take that route where the marginal cost of processing each additional payment has to go to zero," Gupta said.

"We have to think about and leverage models where payments itself is sort of a service that's given away for free." Likening payments to printers, Gupta noted that most of the money is made on ink cartridges. If payment processing is the printer, fintechs will need to figure out what their ink cartridges could be.

That said, there are still costs associated with payments processing. Cost-drivers include fraud monitoring, identity verification, or any intervention when something goes wrong.

That's where Gupta sees an opportunity for payments companies to deploy AI and ML to eliminate the human touch points of processing a transaction.

"If you can handle these exceptions gracefully and in an automated fashion, you can get to that end state of marginal cost of each additional transaction being zero," said Gupta.

If the cost-drivers of the payments value chain are reduced through automation, Gupta thinks the companies will then find new ways to monetize the transactions they process.

Advertising, for one, could be such an opportunity, Gupta said.

"There are a lot of signals in and around the act of processing settling a payment transaction, and all those signals can be utilized to create new opportunities," he said. "You can figure out what stage the customer is in, and what they might want.

"Payments data can give merchants insight into consumer behaviors, which can ultimately be used to target products and services to the right audiences.

"There is that ad-based mechanism around monetization of the signals and data in payments, which is how the Amazon's and the Google's and that whole ecosystem continues to be interested," Gupta said.

Gupta also noted that payments data can open up opportunities in lending. A coffee shop, for example, may need a business loan to open a second location. If the coffee shop uses Square's point-of-sale to process customers' purchases, then Square has access to data around how much the coffee shop makes in a given month, and can use that to inform a credit decision.

"They understand the cadence and the quality of the business in real-time based on all the collections they're doing and all the payments they're processing for that business, and utilize that data to underwrite that particular business," Gupta said.

Square isn't the only company tapping into the link between payments and lending. Buzzy payments fintech Stripe, a Square competitor valued at \$35 billion, launched their small business lending service in September.

Lenders like Kabbage are also moving into payments. It hopes this will optimize its lending products using a business's transactional data.