For Cryptocurrency Payments, First Explore Demand Factors

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Initiatives: Financial Services Digital Business Strategy and Innovation and 1 more

Cryptocurrencies such as bitcoin are slowly making a transition from speculative investment instruments to payments. CIOs should pay special attention to payment habits and the financial life cycle as the COVID-19 pandemic leads to more calls for dematerialization of payments.

Overview

Impacts

- Geographic location matters significantly when measuring awareness of cryptocurrencies and interest in making cryptocurrency payments for goods and services.

- For customers, any transition from currency speculators to retail shoppers is not straightforward. And most consumers are not currency speculators. The acceptance cost for businesses will be significant, especially compared to alternative existing payment options.

- Companies accepting cryptocurrencies as payment for goods and services may benefit from short-term public relations gains and be perceived as innovators, but the impact on payment acceptance is very likely to be short-lived.

Recommendations

Banks and investment CIOs driving financial services digital business strategy and innovation should:

- Communicate to business executives the challenges and risks of engaging with customers wanting to use cryptocurrency for payments by demonstrating an understanding of the demand factors and how they impact prioritization of related business strategies and IT investments.

- Avoid unnecessary technology investments by weighing the scenario that there is no viable demand for cryptocurrency payments in your market, and other payment options are good enough or superior.

- Help your executive leader peers to understand the nature of ongoing market hype by analyzing the source of announcements in terms of locations and profiles of messengers and their companies.
One of the most hyped aspects of any CIO’s agenda is that of the role of cryptocurrency in the payments value chain. For all the promise of bitcoin and other cryptocurrencies, none of the largest online or traditional retailers accept them at scale. While bitcoin is used as a store of value, it has not become a medium of exchange for day-to-day commercial exchanges.

CIOs, therefore, need to be very careful toward claims that bitcoins and other cryptocurrencies could succeed as a medium of exchange. This is especially true in the current context where there is an acceleration of such calls due to the current challenges to cash being perceived as a potential vector for COVID-19. However as shown by Coinmarketcap, bitcoin value is quite volatile, making it difficult to use for day-to-day payments. But beyond short-term perceptions, consumers’ payment habits and other demand factors greatly matter. As a result, understanding the reality of what is new and what is changing in this space will be key to those CIOs successfully navigating cryptocurrency hype during and post-COVID-19.

With this in mind, we explore the biases and misconceptions that can affect the role of cryptocurrencies in the payments industry. To do so, we will use Gartner’s 2019 Financial Services Consumer Trust Survey data to examine the relative levels of demand to use bitcoin and cryptocurrencies. To aid clarity, we will use data from a single country as a measure of that demand. The U.S. has been identified as the most logical country dataset to utilize, given the public’s relatively advanced level of cryptocurrency understanding. It displays a strong level of experimentation with cryptocurrencies as both a speculative investment instrument and as a payment mechanism. This offers reasonable base levels to explore bias and misconceptions, a hypothesis based in part on Coinmap’s landscape of cryptocurrency merchants and ATMs. This data indicates that the U.S. has a relatively higher density of merchants supporting cryptocurrency transactions.

However, we do have to recognize that the state of existing payment infrastructures, as well as local regulations, will also strongly influence adoption and usage. On the one hand, comparatively backward payment systems may benefit the most from a new approach, but would demand higher costs of integration. On the other hand, advanced payment systems would facilitate integration, but may not need a new approach in the first place. Our focus in this analysis is to assist our clients in paying attention to and detecting potential bias and misconceptions, not to generalize from the U.S. situation.

Gartner sees potential for blockchain-enabled tokens to create, represent, exchange and manage new types of digital assets (see “Expand Your Token Universe to Create New Business Models”).

- Prioritize IT investments by creating an action plan for business executives.
- Position customer engagement services as a collaboration between all functional representatives from transaction operations, not just as a pure payment play.
We, nevertheless, recognize the lack of maturity of the underlying blockchain constructs that will follow an evolution described in Gartner’s “Apply the Gartner Blockchain Spectrum to Inform Investment Decisions.”

The opportunity to use cryptocurrency to replace existing payment systems is limited, as discussed in “Why Retail Payment Systems Don’t Need Blockchain.” However, in order to support our clients’ understanding of consumer demand factors, and their interest in benefiting from customers’ use of cryptocurrency investments for payment purposes, we provide additional guidance on what mistakes CIOs and executive leaders can avoid. We also suggest where to focus resources.

The main objective is to equip CIOs with an understanding of the consumer demand and market dynamics, to dissipate any hype, and to give advice on working with business executives in prioritizing innovations across the investment and payment domains (see Figure 1).

**Figure 1: Impacts and Top Recommendations for CIOs**

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Top Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location matters when measuring interest in cryptocurrency payments.</td>
<td>• Be sensitive to regional levels of awareness and interest.</td>
</tr>
<tr>
<td></td>
<td>• Analyze consumer bias by monitoring the usage data from businesses that accept bitcoin.</td>
</tr>
<tr>
<td>For customers, any transition from currency speculators to retail shoppers is not straightforward.</td>
<td>• Calculate the total cost of cryptocurrency payment acceptance by including the cost of the incentives to change customer behavior.</td>
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<td></td>
<td>• Monitor the taxation regime for cryptocurrencies and ongoing security challenges.</td>
</tr>
<tr>
<td>The impact on payment is very likely to be short-lived.</td>
<td>• Communicate to business executives the challenges and risks of engaging with customers wanting to use cryptocurrencies to make payments for goods and services.</td>
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<td></td>
<td>• Manage expectations by planning for a gradual decline in transaction volumes over time.</td>
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Source: Gartner  
ID: 720303_C

To navigate hype, avoid overselling by vendors keen to demonstrate the urgency of adopting cryptocurrency payments. Focus on ensuring that CIOs prioritize the right investments, especially with current COVID-19-related financing restrictions.

We will now explore the demand indicators that matter to gauge the potential for cryptocurrency payments, as well as the key demand and supply factors accounting for the challenges in making
customers evolve from speculators to shoppers.

Impacts and Recommendations

Locations Matters When Gauging Interest in Cryptocurrency Payments

Accepting bitcoins and other cryptocurrencies as payment for goods and services (including government services and taxes) has been back in the news with the health crisis and the challenge to cash as a medium of exchange. In May 2019, AT&T announced that it had selected BitPay (a bitcoin payment-acquiring processor) as a bill payment option for its customers. 4 Notwithstanding an announcement short on details and the lack of an update on the usage level one year later, AT&T is not the first company making such a move, notably to benefit from PR on how innovative it is, and at the relatively low cost of consuming an API. But, the track record so far is not positive, as detailed in an article exploring Burger King’s use and acceptance of cryptocurrencies at some of its stores. 5

However, the health crisis context offers a good opportunity to look into consumer behavior and whether there is a natural demand for such new payment innovations. To do so, we must first explore the level of awareness and usage of bitcoins and other cryptocurrencies in our chosen market — the U.S. Figure 1 measures the level of awareness and usage among adult respondents in two specific locations, New York and California, compared to the rest of the U.S.

Figure 2: Awareness and Usage of Bitcoin and Cryptocurrencies in the U.S. by Location
Figure 2 shows that respondents in locations such as New York and California have a higher awareness of and experience with bitcoin and other cryptocurrencies compared to the rest of the U.S. This is not surprising since New York’s investor community and California’s tech communities have been active in driving cryptocurrency startups, exchanges and digital wallets supporting the new trading opportunities.

However, there is a risk that consumer behavior in these markets is projected across the rest of the market. And as illustrated above, the rest of the U.S. has much less awareness and experience of bitcoin, and even lower understanding of cryptocurrencies as a whole.

Another related challenge in terms of enterprises considering engaging with consumers to use cryptocurrencies for payments is that most bitcoins and cryptocurrencies are held in digital wallets for the purpose of investment or currency speculation. This could mean that there is no inherent demand to use cryptocurrency to pay for goods and services on a daily basis.
The Cost of Educating and Incentivizing Customers to Change Their Payment Behavior Will Be Significant

So how does the market move from a baseline understanding in cryptocurrency and its use as a speculative instrument toward its use in broader economic transactions? To achieve that understanding, we first explore how consumer awareness and locations translate into interest in using cryptocurrencies for payments, as illustrated by Figure 3.

Figure 3: Level of Interest in Using Bitcoin to Pay for Goods and Services in the U.S.

**Level of Interest in Using Bitcoin to Pay for Goods and Services in the U.S.**

<table>
<thead>
<tr>
<th>Region</th>
<th>1: Not Interested at All</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7: Extremely Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>24%</td>
<td>13%</td>
<td>8%</td>
<td>3%</td>
<td>12%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>California</td>
<td>29%</td>
<td>10%</td>
<td>9%</td>
<td>3%</td>
<td>19%</td>
<td>19%</td>
<td>12%</td>
</tr>
<tr>
<td>Rest of U.S.</td>
<td>37%</td>
<td>15%</td>
<td>9%</td>
<td>7%</td>
<td>16%</td>
<td>10%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Base = Heard or Aware or Use Bitcoin  
\( n = 79 \) (New York); 135 (California); 902 (rest of U.S.)  
Source: Gartner Financial Services Consumer Trust Survey  
Q: "Assuming it would be easy for you to register and use the service, to what extent would you personally be interested in making a transaction for goods or services using Bitcoin, whether you currently use it or not?"  
Note: Totals may not equal 100% due to rounding.  
ID: 720303_C

**Confirmation Bias**

The data reveals that higher direct experience and awareness of bitcoin and other cryptocurrencies translates into higher interest in making a transaction using bitcoin — assuming it would be easy to register and use the service. Executives making decisions about investing in payments capabilities who base their decisions on only a subset of the market and/or on their experience in those locations will likely suffer from confirmation bias within their customer base.

**Incentive Structure**

The current average cryptocurrency processing fee (1% for bitcoin) \(^7\) may appear attractive to some merchants, compared to credit cards. However, customers are used to these payment
solutions and will need to perceive that the new option is easier, safer or quicker than existing options. And they will need positive or negative incentives to switch payment methods.

Our survey \(^3\) shows that 40% of U.S. respondents considered a financial reward important to motivate them to adopt a new payment method. As an illustration, a conservative estimate taking into account cash-back rates in the U.S. would add another 1% to the cost of building acceptance. Then we also need to factor in the impact that low-value, real-time payment systems will have on pricing. The adoption of alternative payment options in the U.S. — FedNow Service, Zelle and Venmo coming to merchants — will likely provide another cost-effective option for companies such as AT&T. And of course, consumers are already regularly using those payment options for other P2P transactions, increasingly trusting them as payment brands.

**Cost Structure**

Adding to the demand factors, the 1% average excludes conversion to fiat currency, which would add another 1%. There is a lack of clarity around accounting and tax treatments, and most merchants are not able to handle the cryptocurrency exchange risks. As a result, most companies will make a fiat conversion at the time of the transaction, even if the product/service is priced in crypto. A broker (e.g., BitPay) will stand in between, increasing the total cost of acceptance. This would also have an impact on cash flows, as conversion to fiat will add to the length of the payment process.

**Nonpayment Drivers**

It is by no means certain that any consumer cryptocurrency investment use case would easily translate into a payment use case. Even if consumers develop any interest in using bitcoins to make payments for goods, regulatory or tax barriers may intervene to dampen that interest. So for example in the U.S., cryptocurrencies such as bitcoins are taxed as stocks, based on capital gains, depending on the length of the holdings (more or less than one year). \(^8\) Using that same cryptocurrency holding to initiate a run-of-the-mill payment now requires the consumer to undertake likely complex, one-off calculations on tax implications. \(^9\) So the evolution of the taxation regime will also impact the use at the point of sale (POS). And this may lead the payees to use their cryptocurrencies for only one-off larger payments and not use the solution for day-to-day payments.

**Volatility and Expectations**

Another factor challenging the transition is the volatility of cryptocurrency valuations challenging their role as a medium of exchange. \(^10\) While experiments and issuance of stablecoins are getting more common (see “Shape Your Digital Strategy With Central Banks’ Intentions Toward Digital Currencies”), they are only a start in responding to the stability issue, but they fail to clarify how their incentive structure will work. There is a paradox where the incentive structure for the holders of the cryptocurrency exists but is damaging to its potential as a medium of exchange.

Bitcoins’ holders may make payments only when this is aligned to their investment strategy, and for some, when it can generate an overall increase in the valuation of the cryptocurrency. And they
may hold on to their bitcoins as a store of value, as opposed to driving payment transactions. To be fair, the same process applies to cash. However, this is compounded by a much higher level of volatility and a lower level of liquidity. That said, the focus on the demand does not differentiate between companies accepting payments in terms of executing a transaction in cryptocurrencies (e.g., pricing the product) and actually receiving the cryptocurrencies onto the balance sheet. The former is much more common, and the difference is important for the payees (merchants), who expect to minimize the risks due to the volatility of the cryptocurrencies.

Security and Fraud

According to Kaspersky’s Cryptocurrency Report 2019, “nearly a fifth (19%) of consumers who use cryptocurrencies have experienced hacking attacks on exchanges, and (15%) have been victims of cryptocurrency fraud” (see Note 1). Those findings, albeit recognising a degree of possible bias related to vendor interest, offer an important perspective on consumer trust. So, while multiple banks and their customers have also been subject to similar attacks, in general, those customers have been able to rely on some degree of regulatory control and redress. Gartner’s consumer survey, asked the question: “Which of the following factors would motivate you to change how you make payments, in other words, adopt a new payment method/solution?” Twenty-one percent cited, “Make payments more secure” as their top factor (the most important factor across all age groups). And this factor was in the top three factors for 45% of respondents. So a lack of regulatory control and protection in the cryptocurrency market will play a key role in influencing consumer and merchant adoption.

Companies Accepting Cryptocurrencies May Find That the Impact on Payment Acceptance Is Short-Lived

The Financial Life Cycle

The age of any potential users of cryptocurrency is a key component of their financial life cycle. With that point in mind, Figure 4 explores interest in using bitcoins for goods or services across age groups.

Figure 4: Level of Interest in Using Bitcoin to Pay for Goods and Services by Age Groups
Discussions with crypto exchanges during client inquiries confirm that their biggest customer base is in the 22 to 34 years bracket. The higher interest from 25- to 34-year-old customers can be accounted for by:

- A stronger interest in payment innovations as indicated by the highest rating of agreement with the statement “I am looking for solutions to replace my physical wallet (containing cards/cash) with my mobile device” (1 = strongly disagree; 7 = strongly agree, mean: 18-24 [4.1]; 25-34 [4.6]; 35-44 [4.1]; 45-54 [3.2]; 55-74 [2.6]).

- Individuals in that age group tend to have a stronger need to deal with urgent payments due to their life stage, and they attach a greater weight to any solution saving time and improving their monetary liquidity.

In other words, the argument that demand from younger customers is the strongest due to tech savviness and a desire to experiment doesn’t hold for both payment innovations and intent for bitcoin payments usage.

As a result, the demand for payment innovations that support more flexible options is a key driver for 25 to 34 year olds due to their position on the financial life cycle.
That said, we now go back to the investor bias argument by exploring how awareness of bitcoin and cryptocurrencies, as well as potential payment usage, relate to income groups.

**Income as Key Driver**

The income of individuals or their household is another important component of the financial life cycle, and influences attitudes to the use of cryptocurrencies. Figure 5 tests the awareness of bitcoins and cryptocurrencies by income groupings.

**Figure 5: Usage of Bitcoin and Cryptocurrencies by Annual Household Income Groups**

Usage of Bitcoin and Cryptocurrencies by Annual Household Income Groups  
Percentage of Respondents Who Have Been Using Bitcoins or Cryptocurrencies (Trading Them, Using Them to Purchase Products and Services)

Figure 5 supports the argument that the interest in bitcoins and cryptocurrencies is driven by speculative investment opportunities, since higher-income individuals will have more disposable income to make those investments in the first place. We did not measure size of respondents’ investable assets, so this is only a partial analysis of their investment potential. We are also conscious that higher income correlates with higher levels of education, which favors interest in technology. In turn, this creates a better ability by consumers to understand the fundamentals of bitcoins and cryptocurrencies, and therefore, also contributes to experimentation with cryptocurrency wallets.
All of the above has important implications for using cryptocurrencies to support financial inclusion, notably in emerging market economies.

- As mentioned above, payment experience may not be the starting point for interest in cryptocurrency payments. Also, those who are underbanked or unbanked are unlikely to hold cryptocurrency investments.

- There is clearly a demand for higher velocity, small-value P2P payment systems. So, integrating such payment systems with cryptocurrencies to enable better and more efficient payment routes makes more sense than introducing a completely new payment system.

- However the sequence matters, and an overfocus on cryptocurrency holdings would damage the opportunity. For example, Square’s involvement with cryptocurrency should be driven by the Square suite of payment services, not the reverse. ¹²

In other words, we can not ignore the fundamentals of the psychology of money (see “Your Digital Transformation Depends on Psychology”) when creating and launching a new payment solution. And cryptocurrency payment systems are no exception.

Figure 6 shows how household income levels impact interest in making transactions for goods and services using bitcoins and cryptocurrencies.

**Figure 6: Level of Interest in Using Bitcoin to Pay for Goods and Services by Income**
Figure 6 shows that higher-income groups have a much stronger interest in making payments with bitcoins (and other cryptocurrencies). This shows that enterprises positioning those digital assets as a payment option should give much more attention to an underlying factor — how investors are looking to benefit from capital gains from holding those assets. As a result, merchants choosing to accept bitcoins and cryptocurrencies may generate some initial transactions, but usage may plummet after just a few transactions. CIOs also need to clearly understand the difference between accepting payments in terms of executing a transaction in crypto (e.g., pricing the product) and actually receiving the crypto onto the balance sheet. Lots of companies do the former — hardly any mainstream firms do the latter.

Companies accepting cryptocurrencies for payment for goods and services may benefit from PR gains and be perceived as an innovator in the short term, but the impact on their payment acceptance is likely to be short-lived. Measuring frequency of usage of the payers across time and communicating that to the marketplace would be useful, even if not PR worthy.

Evidence
1 “Humber Bridge Goes Contactless During Virus Outbreak,” Finextra.


3 Gartner’s Financial Services Consumer Trust Survey was fielded from December 2018 through February 2019 via online (online and face-to-face in UAE) methodology. The total number of respondents was 12,329 consumers: Australia (n = 1,257); Brazil (n = 1235); Canada (n = 1222); China (n = 1,200); France (n = 1,256); India (n = 1,202); Poland (n = 1,240); UAE (n = 1,211), the U.K. (n = 1,258); and the U.S. (n = 1,248). Respondents ranged from 18 through 74 years old, with quotas and weights applied within each country for gender, age, region and household income. Results are representative of the respective online populations (excluding the lowest household incomes) with respect to age, gender, region and household income. Indicative precision level: At full count, sampling error is +/- 3.1% at the 95% confidence level. Levels vary depending on the number being measured, as well as specific data cuts applied.

4 “AT&T Now Accepts BitPay,” AT&T

5 “Bitcoin Not Accepted: Burger King’s Crypto Foray Short-Lived,” Cointelegraph.


7 “Merchants Can Reduce Transaction Processing Costs by 70% With Crypto Payments,” Medium.


13 “Who Accepts Bitcoin as Payment?” 99BITCOINS.

Notes 1: Kaspersky

In September 2017, the U.S. government ordered all federal agencies to remove Kaspersky’s software from their systems. Several media reports, citing unnamed intelligence sources, made additional claims. Gartner is unaware of any evidence brought forward in this matter. At the same time, Kaspersky’s initial complaints have been dismissed by a U.S. District of Columbia Court.
Kaspersky has launched a transparency center in Zurich where trusted stakeholders can inspect and evaluate product internals. Kaspersky has also committed to store and process customer data in Zurich, Switzerland. Gartner clients, especially those who work closely with U.S. federal agencies, should consider this information in their risk analysis and continue to monitor this situation for updates.

**Recommended by the Authors**

Expand Your Token Universe to Create New Business Models

Use Gartner’s Strategic Tokenization Decision Framework to Boost the Value of Digital Business Ecosystems

Facebook Libra — Liberator or Trojan Horse?

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Technology Insight for Network Security Policy Management

Start Using Network Security Controls to Reduce Sensitive Data Loss

Defining Cloud Web Application and API Protection Services

Accountable Collaboration: A Conversation with GFG’s Grant Schmidt

China Summary Translation: Align Projects, Products and Outcome Metrics to Business Goals

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