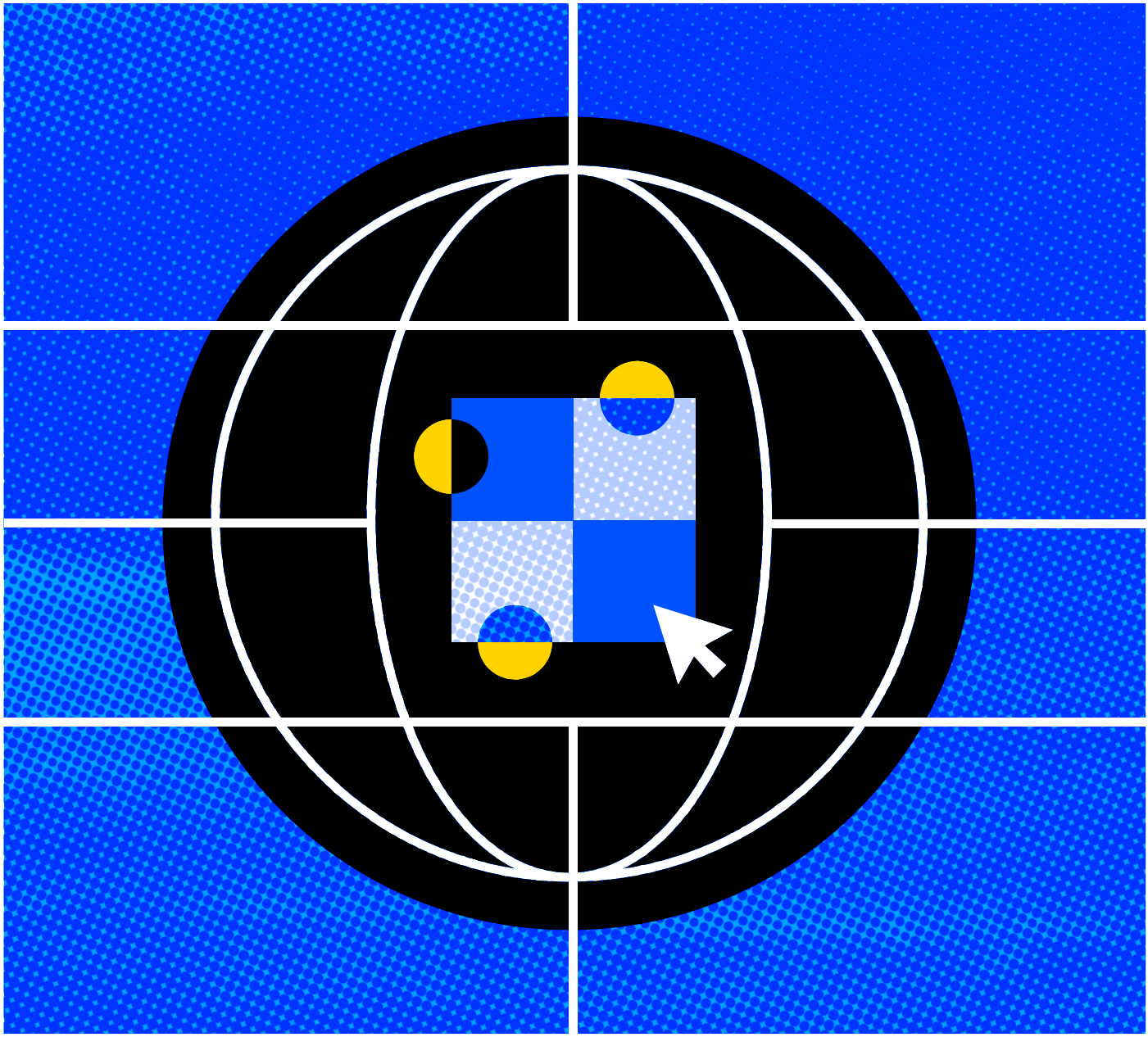
International Survey of Web3 Adoption



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Executive Summary

Web3 is a decentralized, open, and interoperable platform that enables individuals worldwide to interact and exchange value without relying on a central authority. This new financial infrastructure promises to be more efficient, transparent, and equitable. Today, there are many ways for crypto users to engage with Web3, including trading digital assets on centralized (CEX), peer-to-peer (P2P), or decentralized (DEX) exchanges, minting and trading unique digital assets (non-fungible tokens, or NFTs), borrowing or lending crypto, playing Web3-based games, using crypto for payments, making peer-to-peer payments locally or internationally (remittances), and staking crypto as an investment. The crypto industry is also expanding the range of products and services offered on Web3, including privacy, scalability, real asset tokenization, decentralized identity, and consumer protection.

To gauge global familiarity, interest, and use of Web3 services, the Coinbase Institute surveyed over 32,000 people with internet access from 16 countries. The survey aims to track the adoption and awareness of Web3 globally and enable cross-country comparisons to better understand the market fit of various Web3 products and services. The survey provides valuable insights for the crypto industry on which products and services have a better market fit, for policymakers and regulators on how to address regulatory concerns without stifling innovation, and for investors in digital assets on how to optimize their global portfolio allocation.

The main findings of the survey are grouped into three research areas: Web3 awareness, adoption, and concerns.

Awareness:

1. Web3 and crypto are well-known across the world. Overall, 82% of respondents are at least somewhat aware of crypto in general, and 66% have heard of at least a specific web3 use case. Awareness is greater in Europe, and lower in Japan and emerging countries.
2. Payments, NFTs, and trading on centralized exchanges are the most known Web3 services. Advanced services, like staking, borrowing and lending, and trading on decentralized exchanges, are still relatively unknown around the world.
3. Social media is the primary vehicle for increasing awareness around Web3, especially in emerging countries. Crypto users rely more on social media and non-traditional financial news sources to learn about Web3. Between 30% and 40% of crypto user respondents report using Youtube, social media, and crypto websites as their main crypto info source, while only 16% to 26% use financial or mainstream news.

Adoption:

1. Web3 adoption is expected to increase by 50% over the next three years. Currently, trading on a centralized exchange and playing crypto games are the two most used Web3 products, but in the future people expect to use crypto more as a means of payment, especially in developing countries where access to financial products is more limited.
2. The key entry point into Web3 is through a centralized exchange, as these platforms are currently the primary rails connecting Web3 with the rest of the economy. Web3 adoption will be for the most part driven by the ability of exchanges to educate and harness users to the breadth of products offered in the Web3 ecosystem.
3. Self-hosted wallets are experiencing widespread adoption, with 39% using a software wallet, and 29% using a hardware wallet. This is crucial because self-hosted wallets are the primary interface for many Web3 services. However, delegating key management to a custodian or exchange is still the predominant way to store private keys with 60% of crypto users claiming to use one.

Concerns:

1. Many respondents do not take advantage of Web3 services because they often lack knowledge of how to use them. Web3 is a very recent technology, and thus while people are generally aware of it, 46% of non-users do not know enough about the technology to adopt it, and 27% do not know where to start.
2. Recent market turmoil is top of mind for web3 users: 40% are concerned about price volatility, 34% about hacks, scams, and platform security, and 32% about the financial stability of centralized exchanges.
3. Government attitude towards Web3 is important to spur adoption: 26% of crypto users are concerned about government regulation, and 18% about the government actively discouraging the use of crypto. This is particularly true in India, and Canada.

→ Overall, the survey provides a wealth of details on how countries rank across various Web3 products and services and provides an understanding of early Web3 innovators and adopters. The findings can help expand the use of Web3 to a broader target audience by understanding how to ride the “S”-shaped adoption curve.

Part 1 Survey Methodology & Demographics

1.1 Survey Methodology

Our sample audience comprises adult internet users over the age of 18 from 16 different countries. The countries included were the United States, Canada, and Brazil in the Americas; the United Kingdom, Germany, Italy, France, Spain, and the Netherlands in Europe; and Australia, Philippines, Indonesia, India, Thailand, Vietnam, and Japan in the Asian/Pacific region. This survey was conducted during October 2022 on YouGov's unbranded online research platform, and we surveyed at least 2,000 adults in each market, stratified to match the demographics (age, gender, race, and education) of the internet population for each country. The demographics information targets were sourced from the 2019 Eurobarometer for the United Kingdom, the United States, Spain, France Italy, the Netherlands, and Germany, the 2019 Pew Gov Attitudes for Brazil, India, Indonesia, Japan, Australia, the Philippines, Thailand, and Vietnam, and the LAPOP for Canada.

It is important to note that this study represents the internet population in each country and not the general population, which may result in a skew towards younger, highly educated urban respondents, especially in developing markets. Participants were randomly selected from a list curated by YouGov, and they were not paid but received loyalty points that can later be redeemed for non-monetary awards. We had a total of 32,788 respondents who completed the full questionnaire, and we oversampled some markets to include at least 400 crypto users, increasing the statistical power of some crypto adoption questions.

The survey focuses on the awareness and usage of Web3 services, with specific questions regarding 10 use cases, shown in Table 1, grouped into three areas of service: Payments, Trading, and other DeFi services. The questionnaire consists of 20 questions, divided into four parts, covering demographics, awareness and adoption of specific Web3 services, top concerns about crypto, Web3 deepdive with crypto users, and financial and media behavior. The list of questions can be found in the appendix.

Table 1

Payments	Trading	Other Web 3 Services
Use crypto to pay for goods or services Spend cryptocurrency instead of money to pay for food, clothes, petrol, software, or anything else.	**Trade on a crypto centralized exchange (CEX)** Centralized exchanges are organizations that support crypto trading on a large scale. For example: Coinbase, Binance, Kraken,....	**Use crypto to borrow or lend** Use your crypto as collateral to borrow a different type of crypto asset. Or loan out your crypto and collect interest from it.
Send or receive crypto overseas Send or receive crypto from someone overseas instead of using bank transfer or remittance.	**Trade on a crypto decentralized exchange (DEX)** Decentralized exchanges are marketplaces where users swap one crypto asset for another using automated tools called smart contracts. For example: UniSwap, SushiSwap, PancakeSwap	**Play a crypto game / Metaverse** Crypto games are online games that let players earn cryptocurrency. The metaverse is a virtual world where you can socialize, shop, play, and build. For example: Axie Infinity, Pegaxy, Battle Infinity, Decentraland.
Use a crypto credit / debit card Pay for items using a crypto credit / debit card and earn rewards in crypto. For example: Gemini Credit card, Crypto.com Debit card, Coinbase Debit card.	**Use a peer-to-peer trading platform** A peer-to-peer (P2P) trading platform is a marketplace of crypto buyers and sellers, allowing them to communicate with each other and arrange trades at agreed prices. For example: Binance P2P, ByBit P2P, Huobi P2P	**Stake crypto for returns** When you stake crypto, the crypto is put to work to support the blockchain network, and you receive rewards in return. There can be a minimum staking period, but the crypto belongs to you and you are free to unstake after a period of time.
		Mint or trade a non-fungible token (NFT) NFTs are crypto assets with unique identification and ownership. They can represent many things, such as digital art, collectibles, music or videos. For example: Bored Ape Yacht Club, CryptoPunks

1.2 Demographics of Survey Respondents

The survey participants were chosen to accurately represent the internet population in each of the 16 surveyed markets. As shown in figure 1, half of the respondents were women, with 46% residing in urban areas, 32% in suburban areas, and 21% in rural areas. The education level varied, with 14% not having finished high school, 32% with a high school degree, 17% with a post-secondary diploma, and 35% with an undergraduate or graduate degree. The income level also varied, with 47% classified as low income, 32% as middle income, and 21% as high income, based on the average income in their respective countries.

On average, respondents were 41 years old, but there was a large standard deviation, with older respondents less represented in the survey due to a lower likelihood of internet use. Figure 2 displays the age distributions of respondents. The most common occupations were in community social and health (i.e. healthcare, civil servant, education, social worker,...), followed by service tech (IT, technology engineer, technician, ...), and outdoor jobs (agricultural, mining, manufacturing, utilities worker, driver, security, construction worker, ...), as shown in figure 3.

The large majority of respondents (89%) had a checking or savings bank account, with a preference for paying with cards or cash. They primarily followed entertainment, politics, and sports and tended to trust national banks and financial institutions. 46% were married or in a civil union, and 43% were single. 33% had children. Figure 4 provides more details on these demographics.

While these statistics represent the average demographics of respondents globally, there was significant variation across countries. For instance, respondents from emerging countries tended to be younger, more likely to be married with children, and had lower income and education levels.

Figure 1

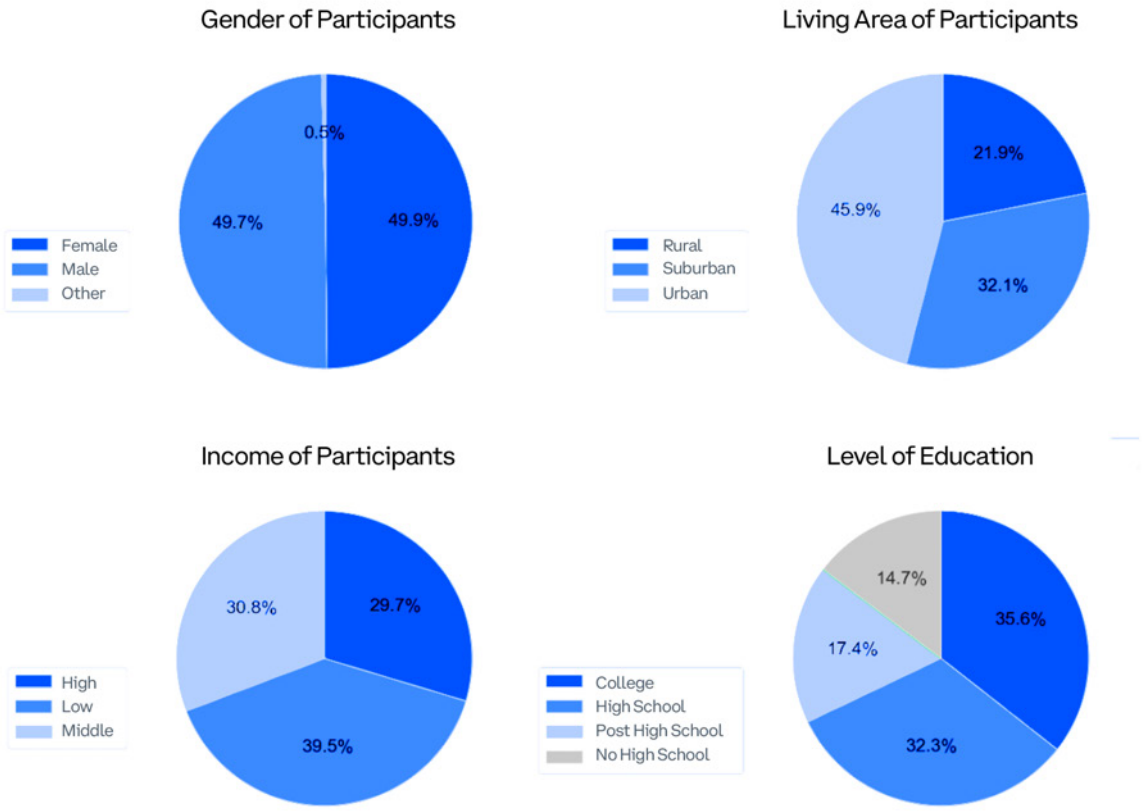


Figure 2

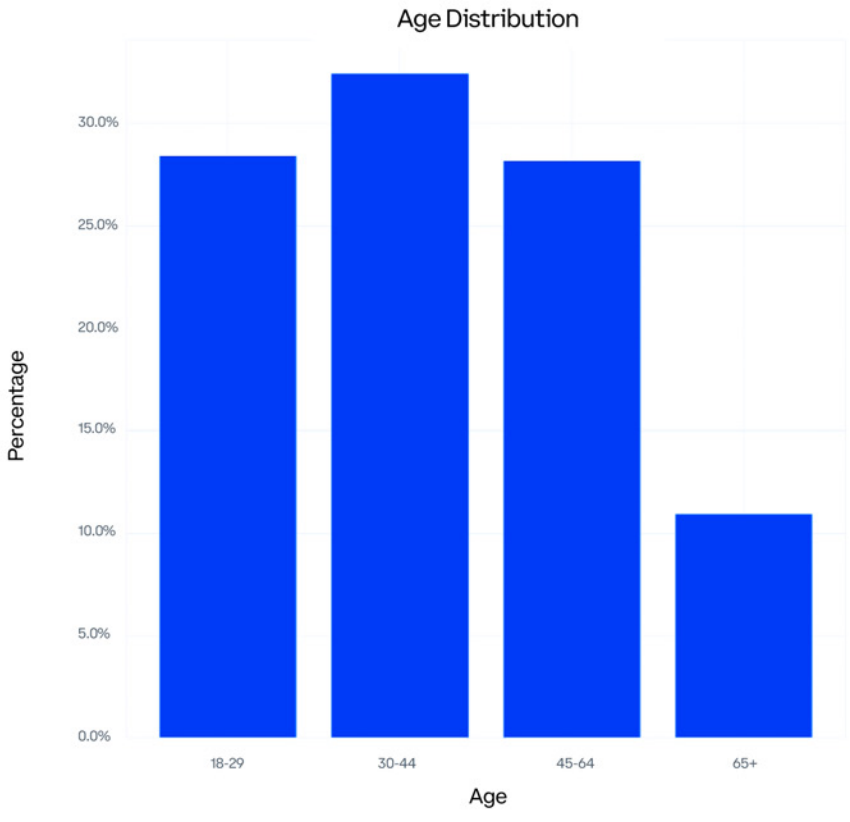


Figure 3

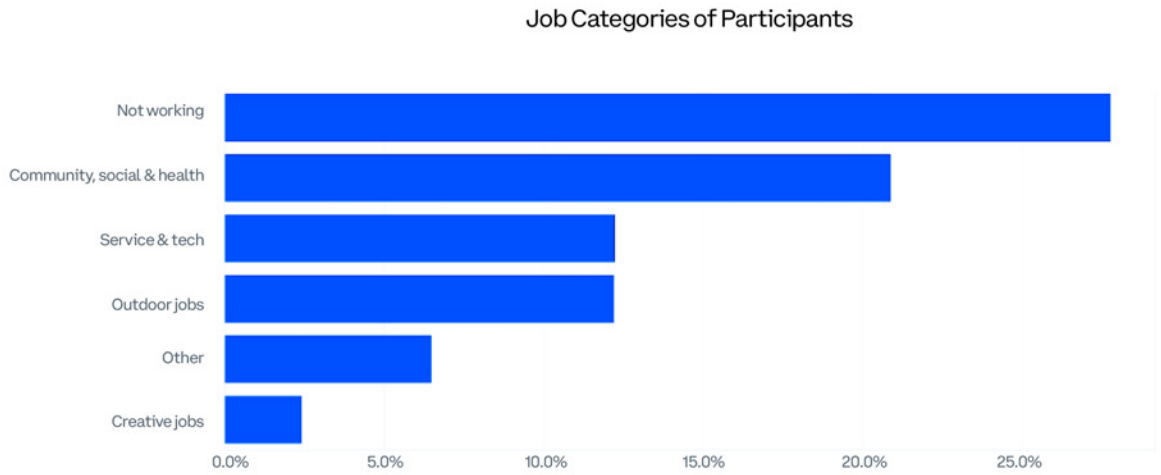
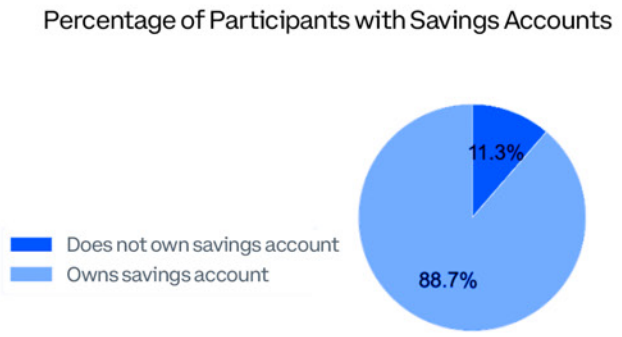
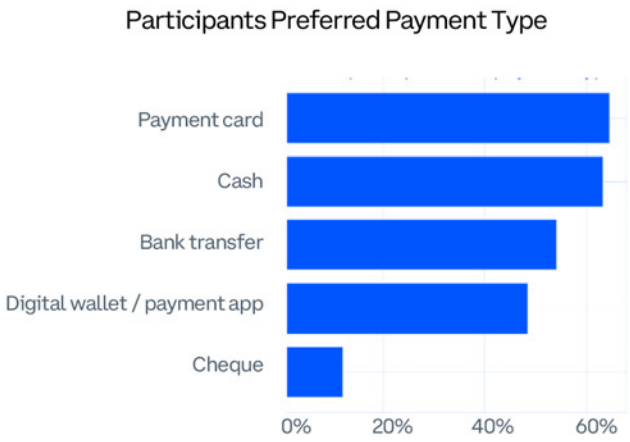
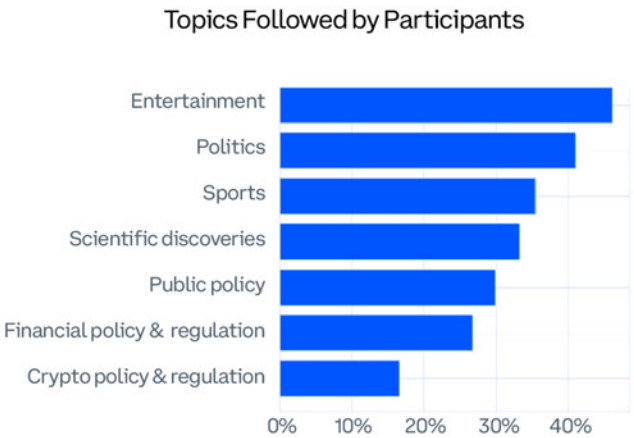


Figure 4







Part 2

Awareness of Web3

2.1

Awareness of Cryptocurrencies and Blockchain Technology

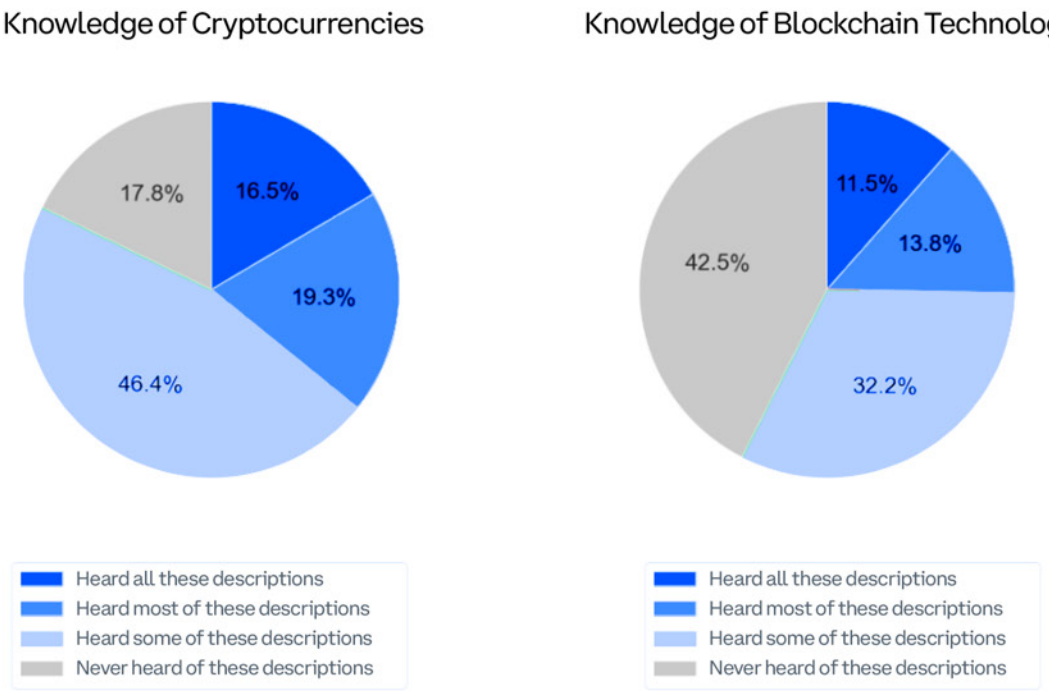
To begin with, we assessed the respondents' familiarity with cryptocurrency and blockchain technology by presenting them with the following explanations:

- Cryptocurrency (or crypto) is a digital or virtual asset that is secured by blockchain technology. This makes it possible to own and securely transfer assets online, without using a middleman such as a bank.

- A blockchain is a list of transactions that anyone can view and verify. It is managed by a large number of computers (a decentralized peer-to-peer network), that cannot be controlled by governments or authorities. It helps record transactions and track assets. Some benefits of blockchain technology include speed, security and privacy.

Following this, participants were requested to choose the option that best reflected their level of awareness of cryptocurrencies and blockchain technology (survey question Q2a). Our analysis demonstrated that the majority of respondents had some knowledge of both cryptocurrencies and blockchain technology. However, as illustrated in figure 5, there was a significant difference between the two: only 18% of respondents were not aware of cryptocurrencies, whereas more than 42% were not familiar with blockchain technology.

Figure 5

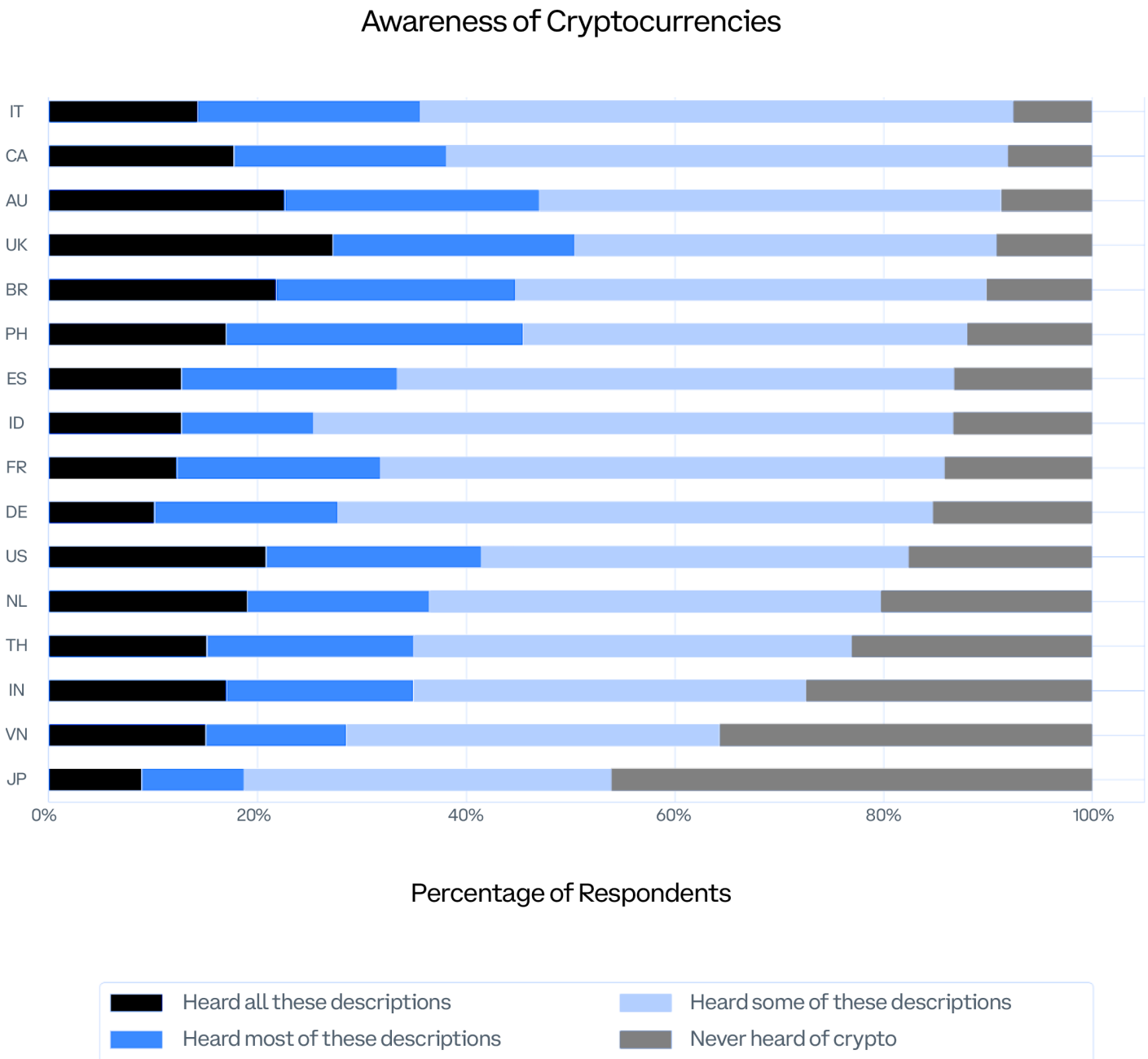


This difference is likely due to the extensive media coverage of cryptocurrencies, particularly bitcoin or ethereum, following the crypto boom in 2017, which led to a surge in people's awareness of cryptocurrencies. On the other hand, blockchain technology did not receive as much attention during this time since it is often discussed in technical terms, which may not be of interest to a broad audience. This gap in awareness is also reflected in the fact that people search for the term "Cryptocurrency" twice as frequently as "Blockchain" on Google.[1]

Next, we explored differences in awareness levels across countries. As depicted in figure 6, developed economies generally exhibit greater familiarity with cryptocurrencies than emerging ones. Italy, Canada, and Australia topped the ranking with over 90% of respondents being familiar with at least some basic concepts about cryptocurrencies, while Thailand, India, and Vietnam had the lowest awareness levels, with less than 70% of individuals being aware of crypto. In the survey, Japan was an outlier in terms of awareness, with over half of respondents having never heard of crypto.

[1] Google Trend. n.d. Accessed March 29, 2023. https://trends.google.com/trends/explore?date=2017-11-01%202022-11-01&geo=US&q=cryptocurrency,blockchain&hl=en .

Figure 6


Awareness of Cryptocurrencies
IT
CA
AU
UK
BR
PH
ES
ID
FR
DE
US
NL
TH
IN
VN
JP
0%
20%
40%
60%
80%
100%
Percentage of Respondents
Heard all these descriptions
Heard most of these descriptions
Heard some of these descriptions
Never heard of crypto

What explains the difference in awareness across countries? Except for Japan, the proportion of individuals who are highly familiar (defined as respondents who have heard all or most of the descriptions related to crypto) with cryptocurrencies does not change significantly across countries. It is the proportion of individuals with marginal awareness that varies greatly across markets. As we will see later, media coverage is one of the leading causes for whether people are marginally aware or completely unaware of cryptocurrencies.

As previously mentioned, blockchain technology is not as widely known as cryptocurrencies. However, the cross-country pattern observed for awareness of cryptocurrencies does not extend to awareness of blockchain technology, as indicated in Figure 7. Emerging countries like the Philippines, Thailand, and India exhibit greater awareness of blockchain technology than more developed countries, especially European ones. Japan still lags behind all other countries with regard to awareness of blockchain technology.

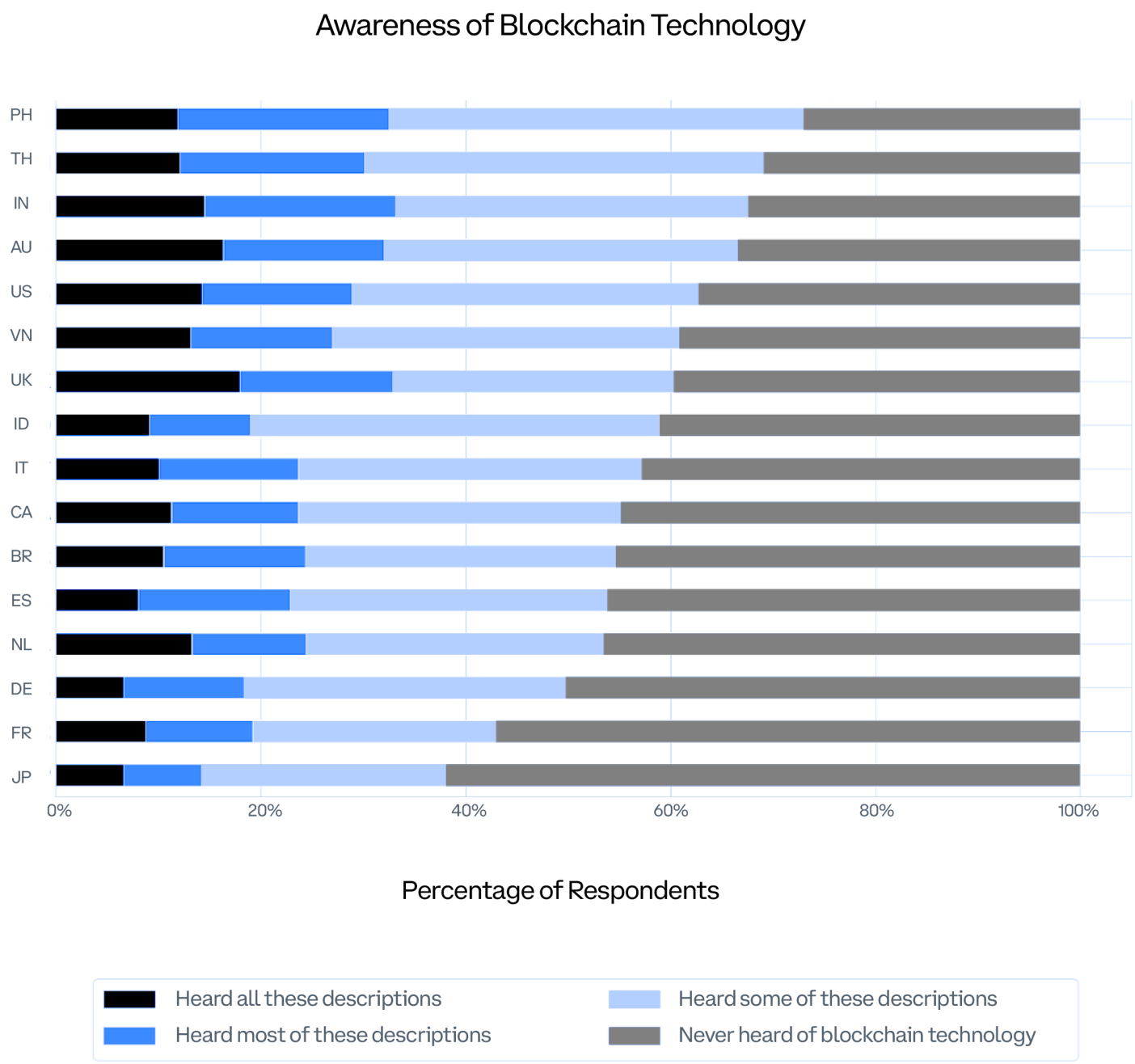
For instance, in the Philippines, there may be several reasons why respondents exhibited high levels of awareness of both cryptocurrency and blockchain technology. To begin with, it is a young and tech-savvy country, as reflected in its highly active business process outsourcing sector.[2] Furthermore, cash remittances account for roughly 10% of its GDP, necessitating easy and fast methods of sending money from overseas, unlike in Germany or Japan, where remittances account for less than 1% of GDP.[3] Lastly, the regulatory framework plays an important role. In 2019, the country passed legislation regulating digital asset exchanges and recognizing them as legitimate businesses.[4] This has aided in creating a more secure and stable environment for cryptocurrency trading and investment.

[2] Talmage, Mark. 2023. "Future Of BPO Industry in The Philippines 2023." Nexford University. Accessed March 29, 2023. https://www.nexford.org/insights/the-future-of-bpos-in-the-philippines-and-growth-opportunities .

[3] Worldbank. n.d. "//." Accessed March 29, 2023. https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS?locations=PH-DE .

[4] SEC. 2019. "Untitled." Securities and Exchange Commission. Accessed March 29, 2023. https://www.sec.gov.ph/wp-content/uploads/2019/10/2019Notice_RulesinDigitalAsset.pdf .

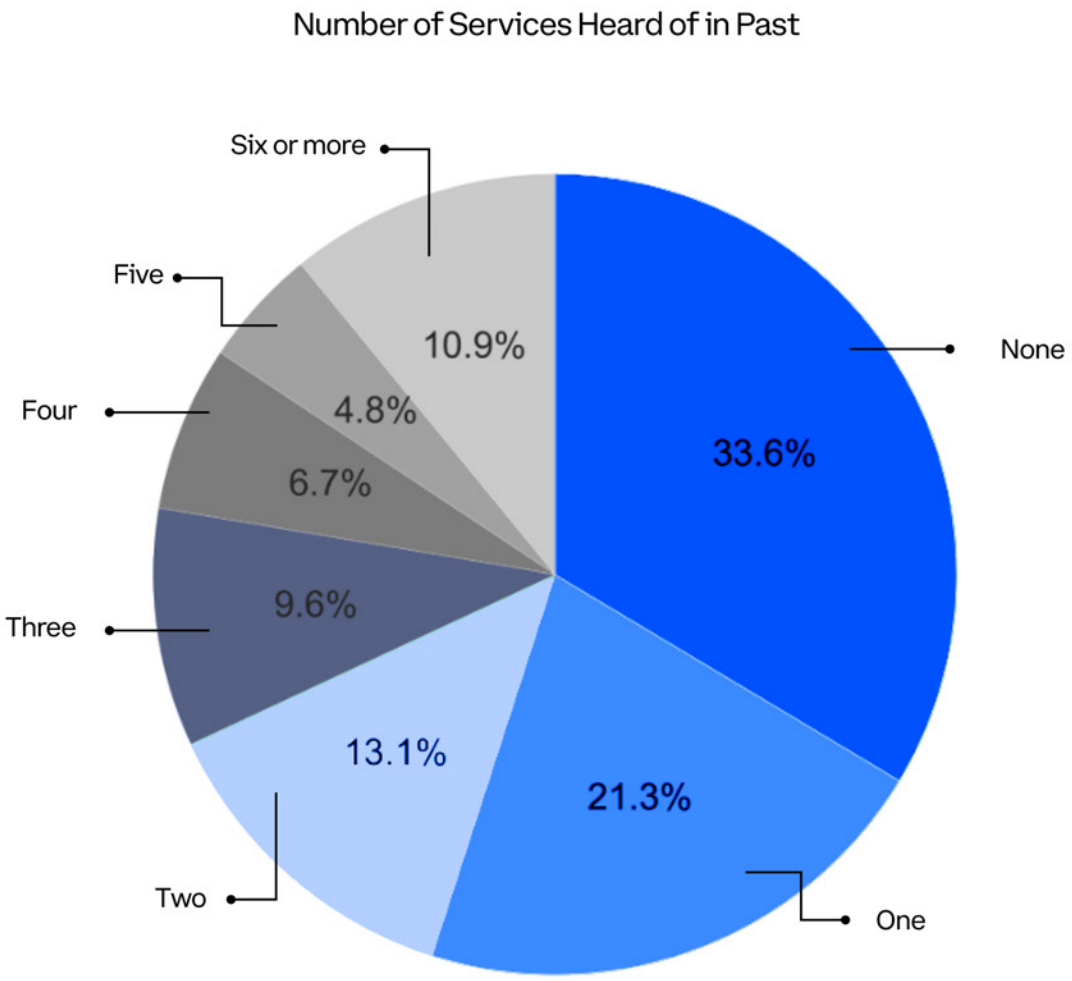
Figure 7


Awareness of Blockchain Technology
PH
TH
IN
AU
US
VN
UK
ID
IT
CA
BR
ES
NL
DE
FR
JP
0%
20%
40%
60%
80%
100%
Percentage of Respondents
Heard all these descriptions
Heard most of these descriptions
Heard some of these descriptions
Never heard of blockchain technology

2.2 Awareness of Web3 Use Cases

We assessed the awareness of specific Web3 use cases by asking participants (survey question Q2c) to evaluate their awareness of the ten Web3 services listed in table 1, spanning across trading, means of payment, and other Web3 services. Figure 8 shows that around two-thirds of our participants are aware of at least one use case, with 11% of survey participants indicating awareness of six or more use cases, demonstrating the high savviness of Web3 by a non-insignificant fraction of people globally.

Figure 8



Examining specific use cases of Web3 in Figure 9, we find that crypto payments are the most recognized, followed by NFT minting/trading and trading on centralized exchanges. This is likely due to substantial media coverage when major companies began exploring the possibility of accepting cryptocurrencies as payment, as well as the creation and sale of digital art by prominent artists bringing attention to NFTs.[5] Staking, decentralized platform trading, and borrowing/lending are the least well-known Web3 services, possibly due to their recent introduction or lack of mainstream popularity.

[5]Nasdaq. 2022. "PayPal and Microsoft Adopt Cryptocurrencies: What This Means for the Future." Nasdaq. https://www.nasdaq.com/articles/paypal-and-microsoft-adopt-cryptocurrencies%3A-what-this-means-for-the-future .Bybit Learn. 2022. "Celebrity NFTs: The Impact Celebrities Have on NFTs." https://learn.bybit.com/nft/celebrity-nfts/ .

Figure 9

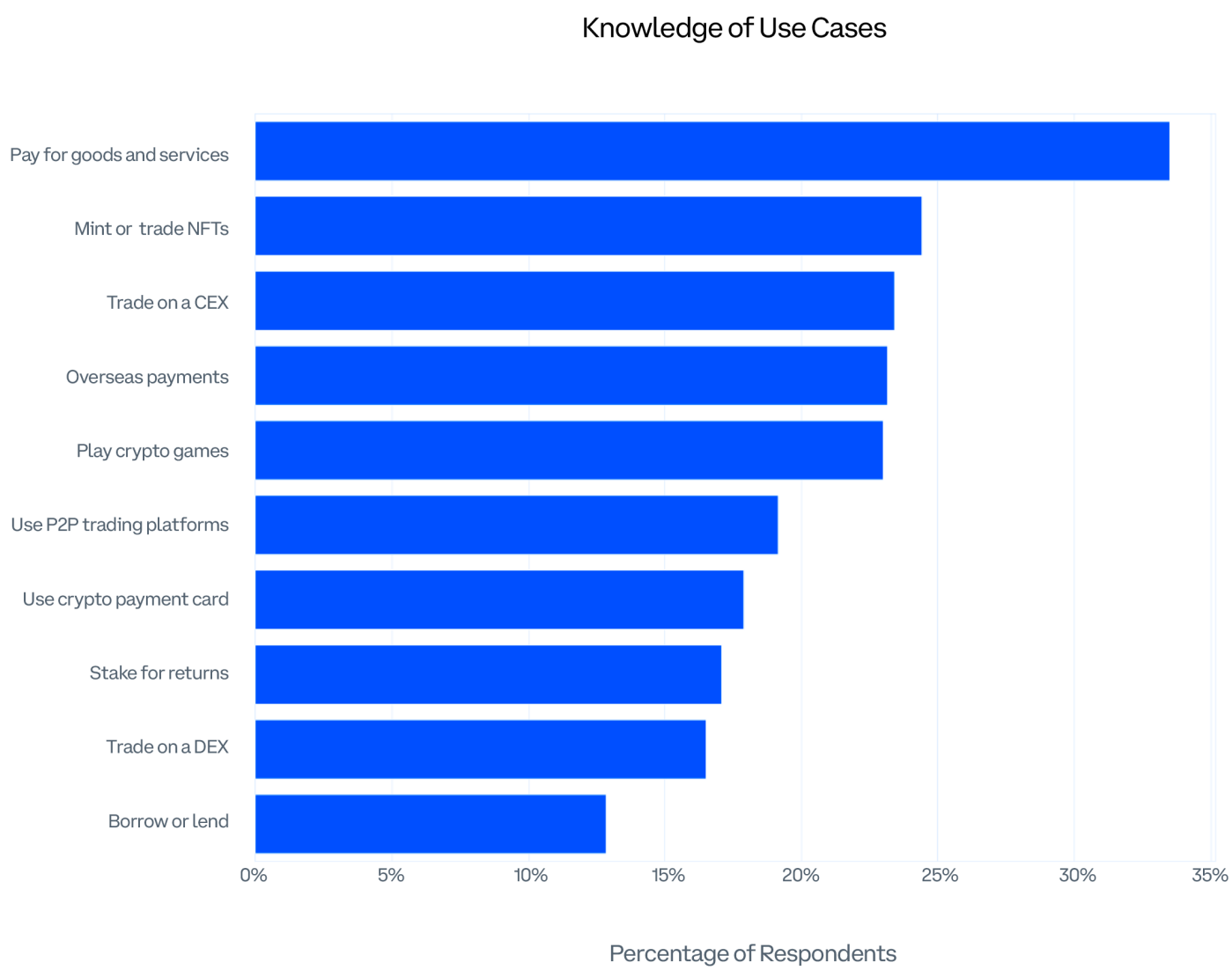


Figure 10 compares the knowledge of use cases in developed and emerging markets, revealing clear differences between the two. Paying for goods and services is largely more popular in developed markets, whereas playing crypto games and the metaverse lead the ranking for emerging markets, possibly due to the large gamer base in these regions, where play-to-earn applications like Axie Infinity are very popular. As a result, the Asia Blockchain Gaming Alliance (ABGA) is promoting the industry and creating influential players in the market. As of today, many key gaming developers, like Sky Mavis (Vietnam), Animoca Brands (Hong Kong) or Wemade (South Korea) reside in these regions.[6]

[6] Markets and Markets. 2022. "Blockchain Gaming Market Size, Share, Trends and Global Industry Forecast - 2027." https://www.marketsandmarkets.com/Market-Reports/blockchain-gaming-market-167926225.html.

Figure 10

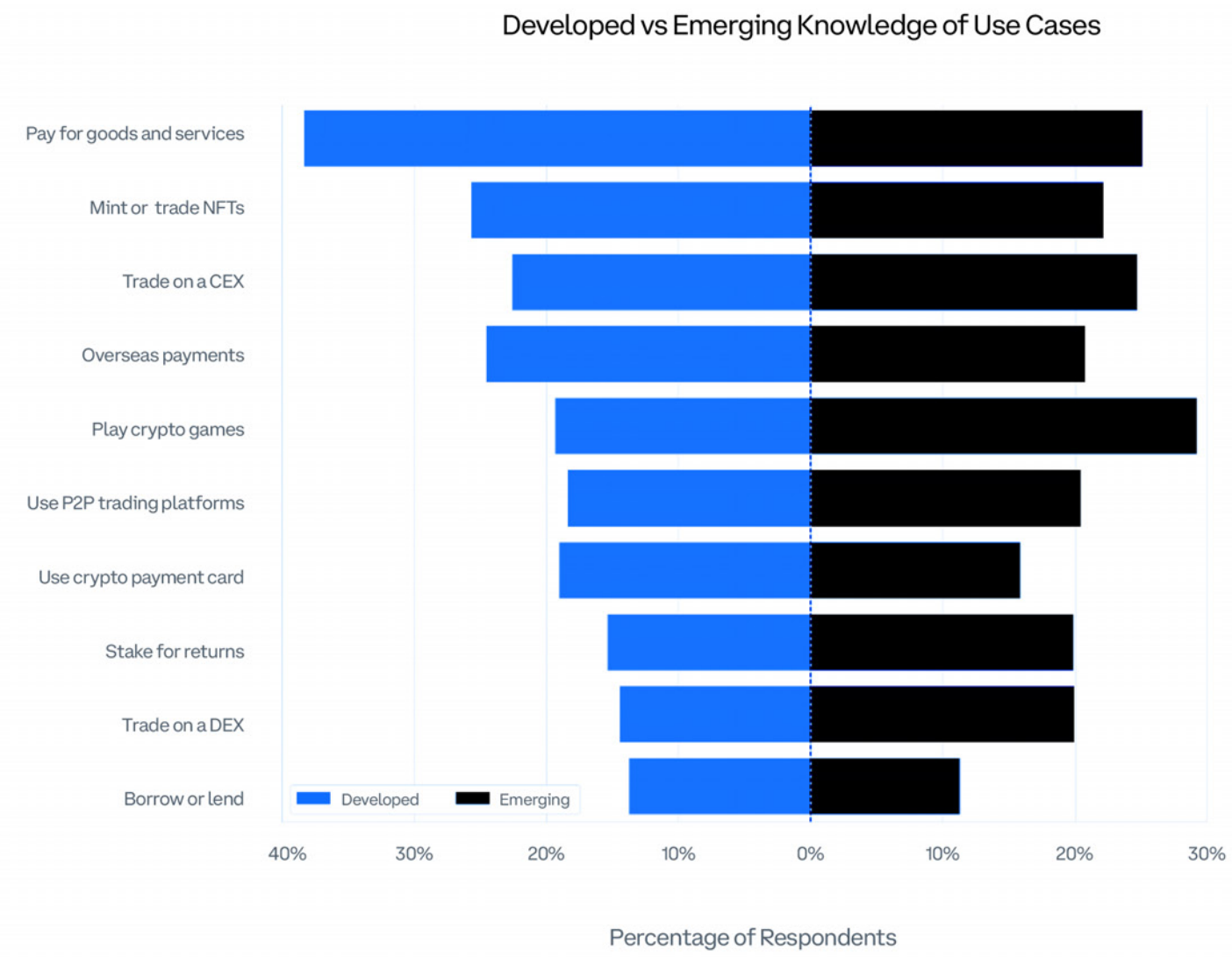
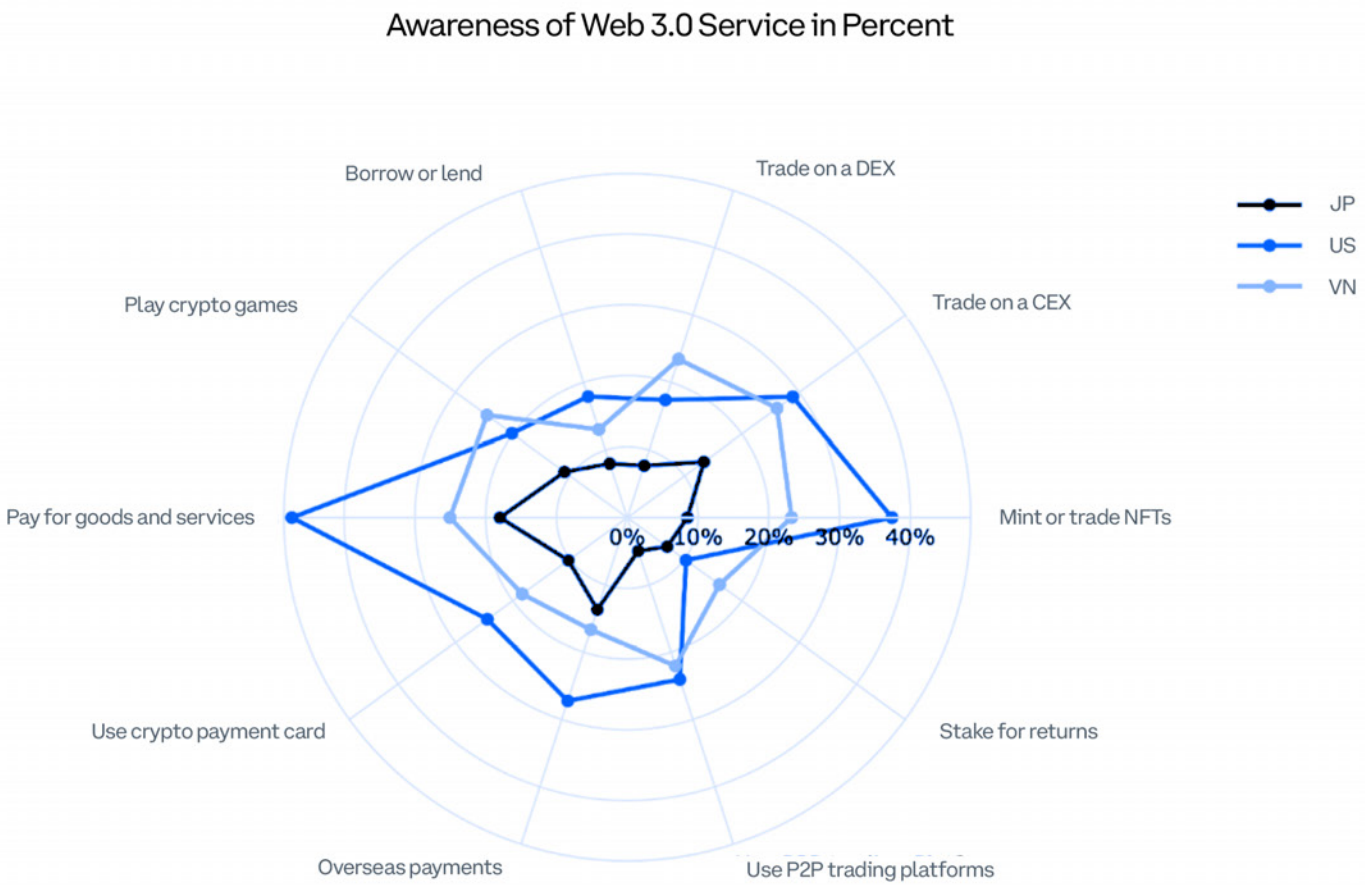


Figure 11 uses a radar diagram to compare the awareness of Web3 services in three representative countries. Japan has the lowest awareness of any service, likely due to its challenging regulatory environment, including high taxes on gains earned by crypto investors. As a result, many crypto firms are even considering relocation to nearby, less hostile countries.[7] On the other hand, almost 50% of respondents from the US know about the possibility of using crypto as a means of payment, which is significantly greater than in Vietnam, where none of the use cases are known by more than 30% of the population. Interestingly, awareness of Decentralized Finance (DeFi) services like trading on a DEX or staking is higher in Vietnam than in the US.

[7] Smith, Andrew. 2022. "Here's Why Japanese Web 3.0 Companies Are Shifting To Singapore." The Coin Republic. https://www.thecoinrepublic.com/2022/07/09/heres-why-japanese-web-3-0-companies-are-shifting-to-singapore/.

Figure 11

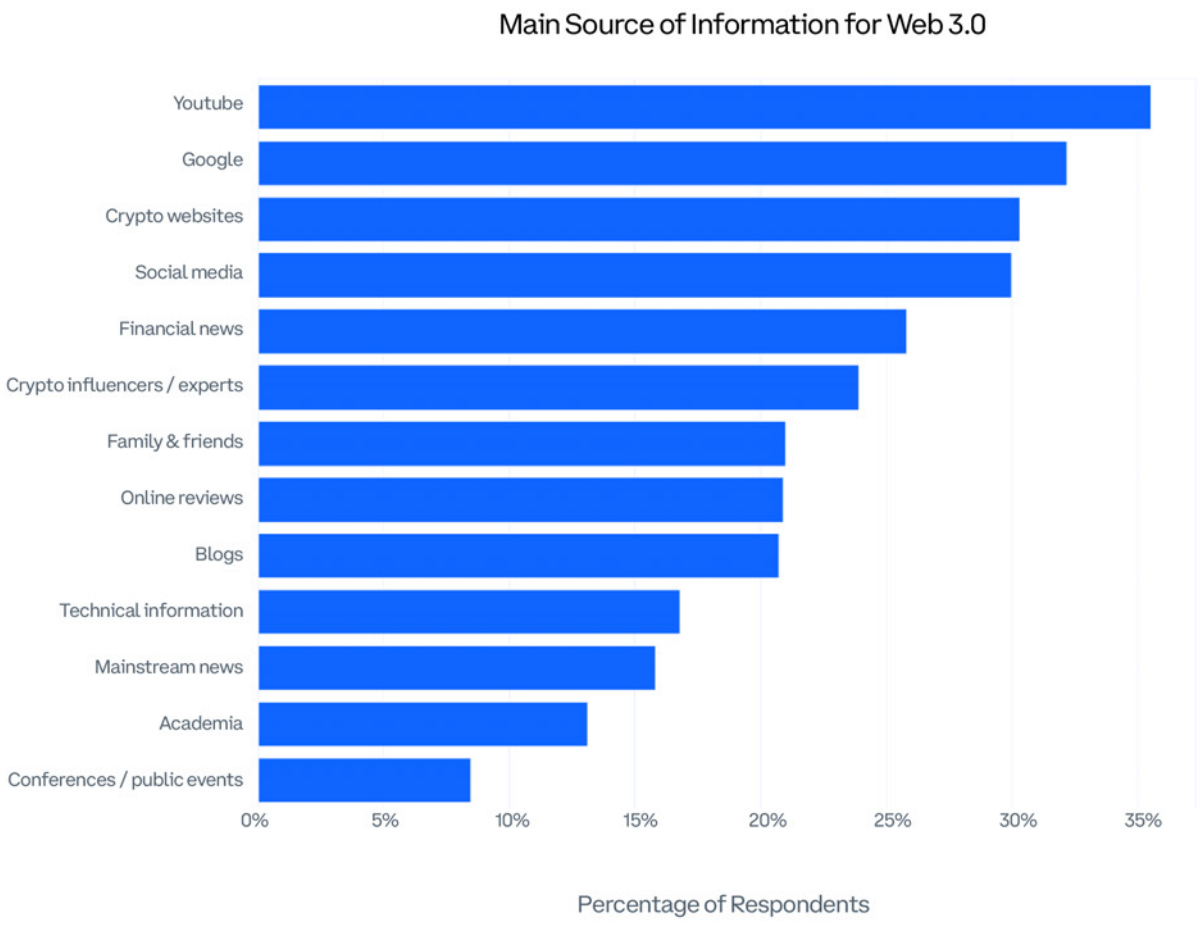


2.3 Sources of Information about Crypto

To determine where participants obtain their knowledge of Web3 services, we asked crypto users which source they rely on for crypto information (survey question Q3e). Participants were presented with thirteen different options that covered social media, modern news, traditional mainstream news, and academic sources. Although some answer options may overlap, such as YouTube and social media, the survey still provides a clear picture: As shown in Figure 12, modern media formats such as YouTube or Google, crypto-specific websites, and social media are the main sources of Web3 information. In contrast, traditional mainstream news sources and academia lag behind. This is hardly surprising given the digital nature of cryptocurrencies and the technology underlying them. Additionally, some crypto websites have been critical of Web3 coverage in mainstream news and have even labeled the relationship as dysfunctional.[8]

[8] DailyCoin. 2022. "Web3 And Traditional Media: A Dysfunctional Relationship." DailyCoin. https://dailycoin.com/web3-and-traditional-media-a-dysfunctional-relationship/

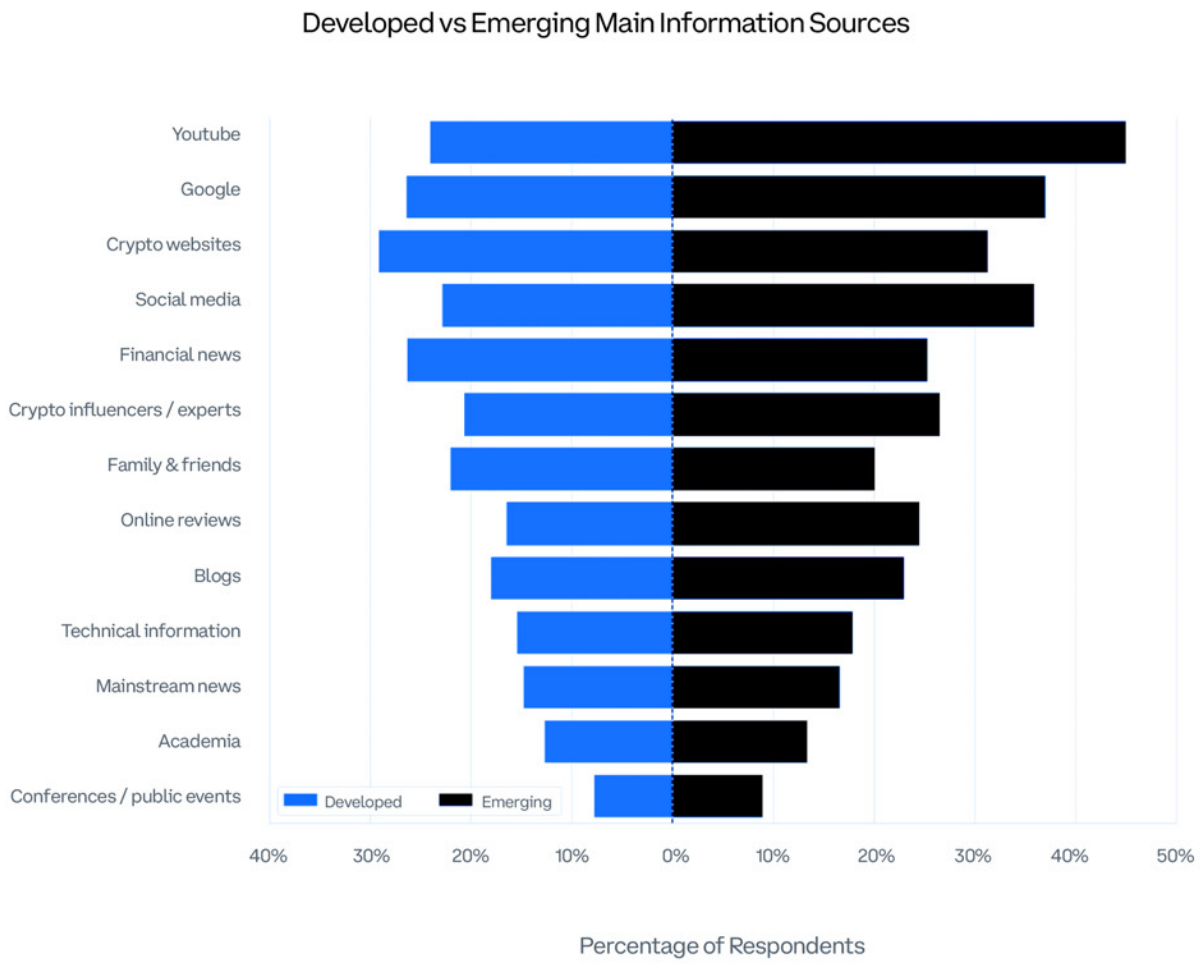
Figure 12



Next, we explored the differences in crypto news sources across countries (figure 13). Emerging markets consume a significantly higher amount of Web3 news relative to developed markets. This result is unsurprising considering the wedge between awareness and familiarity between the two markets. This difference may be due to the fact that emerging markets tend to have less developed traditional media channels. Moreover, social media has become increasingly important in many emerging markets as it is more accessible and convenient compared to traditional channels. Figure 13 also shows that the overall popularity of our top four sources of information is mainly driven by emerging markets. This mirrors overall issues with traditional media, as domestic sources are often compromised as a result of authoritarian rulers, prompting consumers in these countries to opt for global platforms such as YouTube or social media in general.[9]

[9] Spurk, Christoph. 2016. "Seven challenges to media development | DW | 08.09.2016." DW Akademie. https://akademie.dw.com/en/seven-challenges-to-media-development/a-19533127.

Figure 13



Part 3 Adoption of Cryptocurrencies

In this section, we delve into the adoption of Web3 services by examining current usage and differences across markets. We also explore future adoption and compare outlooks across countries. Finally, we analyze how people manage their keys through self-hosted wallets or custodial arrangements with centralized exchanges and custodians.

3.1 Current Adoption

To begin, we investigate whether participants have ever used any of the Web3 services listed in Table 1. As shown in Figure 14, 30.8% of participants have used at least one Web3 service in the past. Among Web3 users, the majority have only used one service (19.4%), while only 5.8% have used three or more. Notably, Web3 usage is more widespread in emerging markets, with 45.8% of respondents in these countries having used at least one Web3 service, compared to 22% in developed markets.

Figure 14

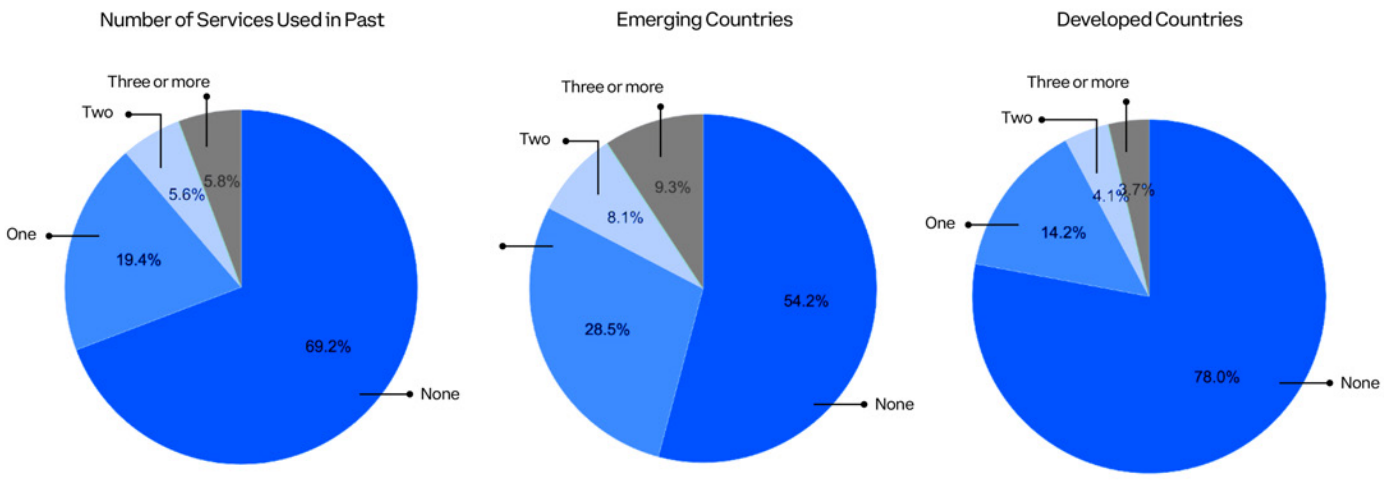


Figure 15 presents a comparative analysis of past Web3 usage across different countries. Remarkably, all emerging markets rank in the top half, and all developed markets ranks at the bottom of the adoption chart. These distinctions can be attributed to the distinctive features of these markets. For instance, individuals in emerging markets may resort to borderless currencies for sending remittances or storing their savings during inflationary periods when access to other fiat currencies, such as the dollar, is restricted. In such circumstances, stablecoins appear to be a viable alternative.[10]

[10] Chainalysis. 2022. "2022 Global Cryptocurrency Adoption Index - Chainalysis." https://blog.chainalysis.com/reports/2022-global-crypto-adoption-index/.

Figure 15

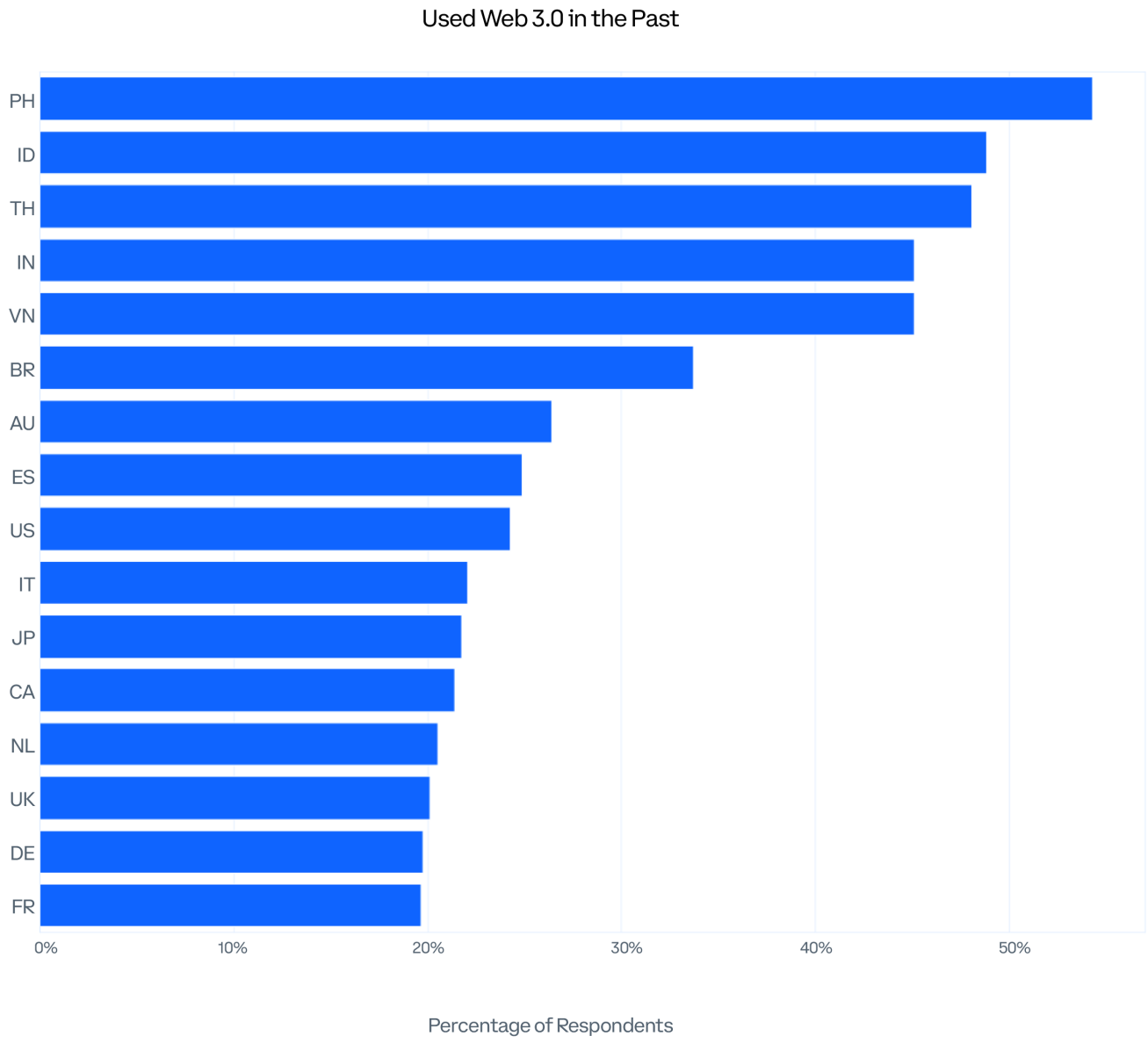
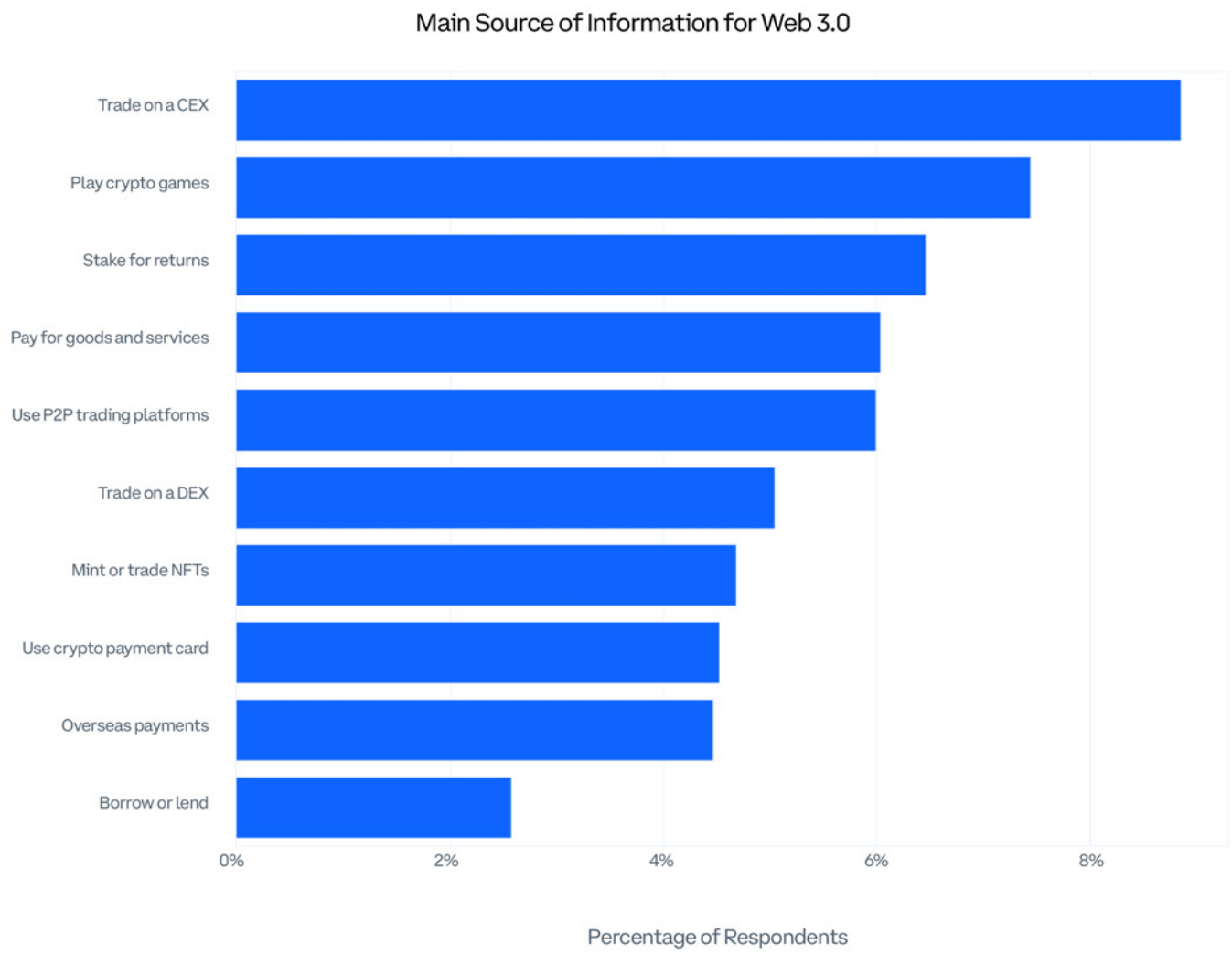


Figure 16 examines the specific Web3 services that participants have used (survey question Q2cb). Interestingly, our findings reveal that high awareness doesn't necessarily translate into high adoption. For example, trading on centralized exchanges and playing crypto games rank 3rd and 5th, respectively, in terms of awareness, despite being the most used services. Conversely, staking for returns, which is relatively unknown compared to the other services, is the third most adopted activity among our participants. Paying for goods and services, the most recognized Web3 service, has only been used by around six percent of respondents, ranking fourth along with using P2P trading platforms. Borrowing or lending, the least familiar service, also falls at the bottom of our adoption chart.

Figure 16



In figure 17, we present a cross-country analysis of Web3 adoption, which confirms that emerging markets tend to have higher adoption rates. All use cases in the developed world apart from trading on centralized exchanges have an adoption rate of less than 5%, while in emerging markets all use cases, except for borrowing and lending are above this threshold. In developed economies, centralized exchanges serve as the most-used Web3 service. This is because they are a familiar concept to people accustomed to traditional finance systems, with user-friendly interfaces designed to cater to a broader audience. Moreover, the regulatory compliance offered by centralized exchanges instills a sense of security and peace of mind for users, given the strict financial regulations in developed economies.[11] In contrast, playing crypto games has become a popular use case in some emerging markets, as many people have lost their jobs due to the COVID-19 pandemic and are seeking ways to boost their earnings.[12] This is aided by the low upfront investment required and the possibility of earning crypto rewards. However, borrowing or lending ranks low across all markets.

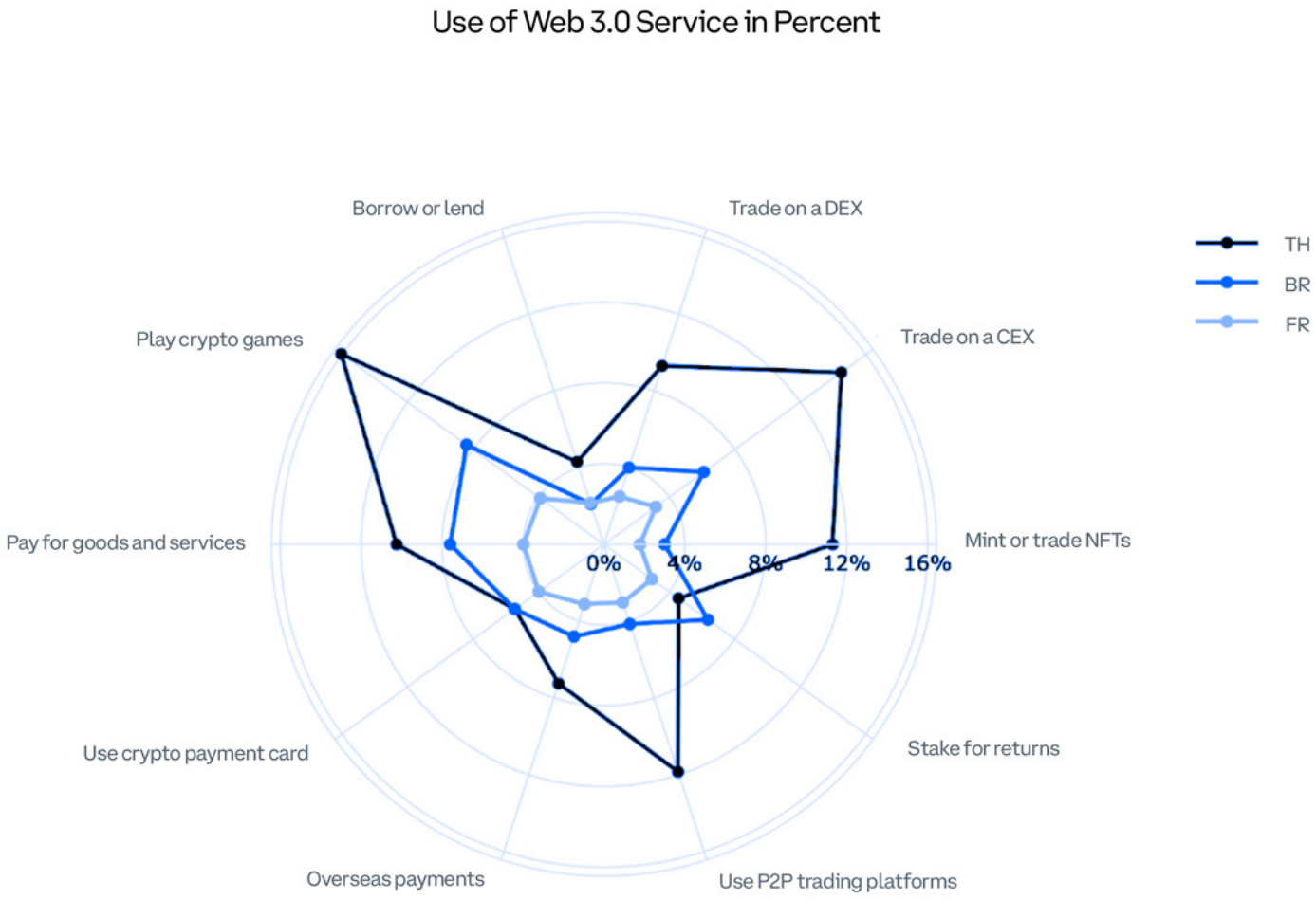
[11] Comply Advantage. 2018. "Cryptocurrency Regulations Around the World | ComplyAdvantage." ComplyAdvantage. https://complyadvantage.com/insights/cryptocurrency-regulations-around-world/.

[12] Olszewicz, Josh. 2022. "In Developing Countries, Play-To-Earn Games Are a Way to Make a Living » Brave New Coin." Brave New Coin. https://bravenewcoin.com/insights/in-developing-countries-play-to-earn-games-are-a-way-to-make-a-living.

Figure 17

Figure 18 provides a country-specific breakdown of Web3 adoption rates. In Thailand, for example, 16% of people have played a crypto game or participated in the metaverse. Furthermore, trading in general seems to be quite popular, as using centralized and decentralized exchanges, as well as P2P platforms rank highly in the radar graph. On the other hand, in France, no use case ranks above 4%.

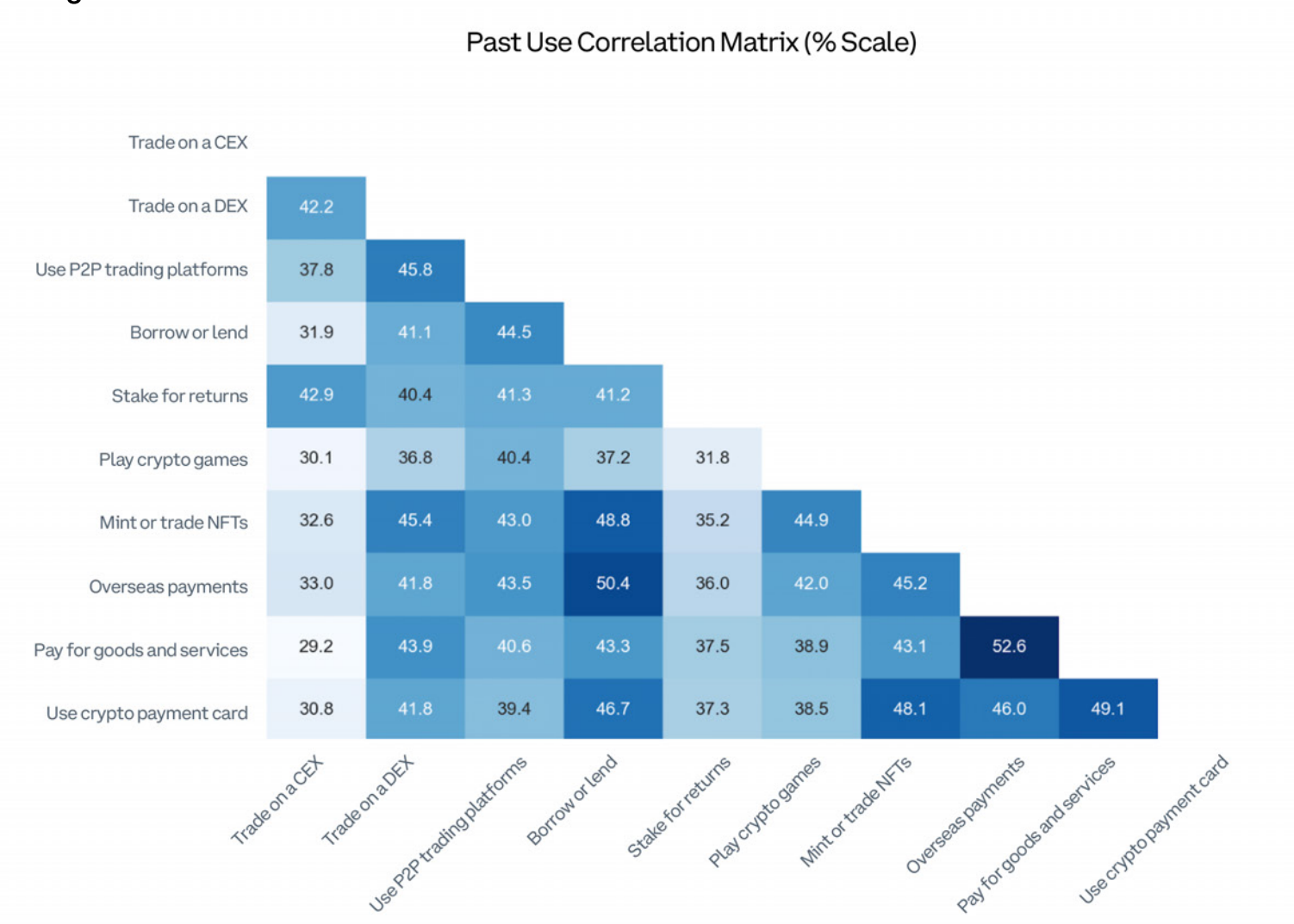
Figure 18



Finally, Figure 14 shows that 40% of crypto users use more than one Web3 service. It is thus interesting to see how Web3 services adoption correlate with each other, creating clusters of use cases. For example, if people use centralized crypto exchanges, what other Web3 services are they also more likely to use? Figure 19 demonstrates that Web3 services tend to cluster into the three categories mentioned earlier in table 1: payments, trading, and other Web3 services. These correlations make sense given the interdependence between services. For example, NFTs and gaming have a high correlation because many gaming tools are stored on the blockchain as NFTs.[13] Similarly, staking for returns requires participation in either a centralized or decentralized exchange, leading to high correlations between the three service categories.

[13] Ledger.com. 2023. "NFT Gaming and Play to Earn: Explained." https://www.ledger.com/academy/nft-gaming-and-play-to-earn-explained.

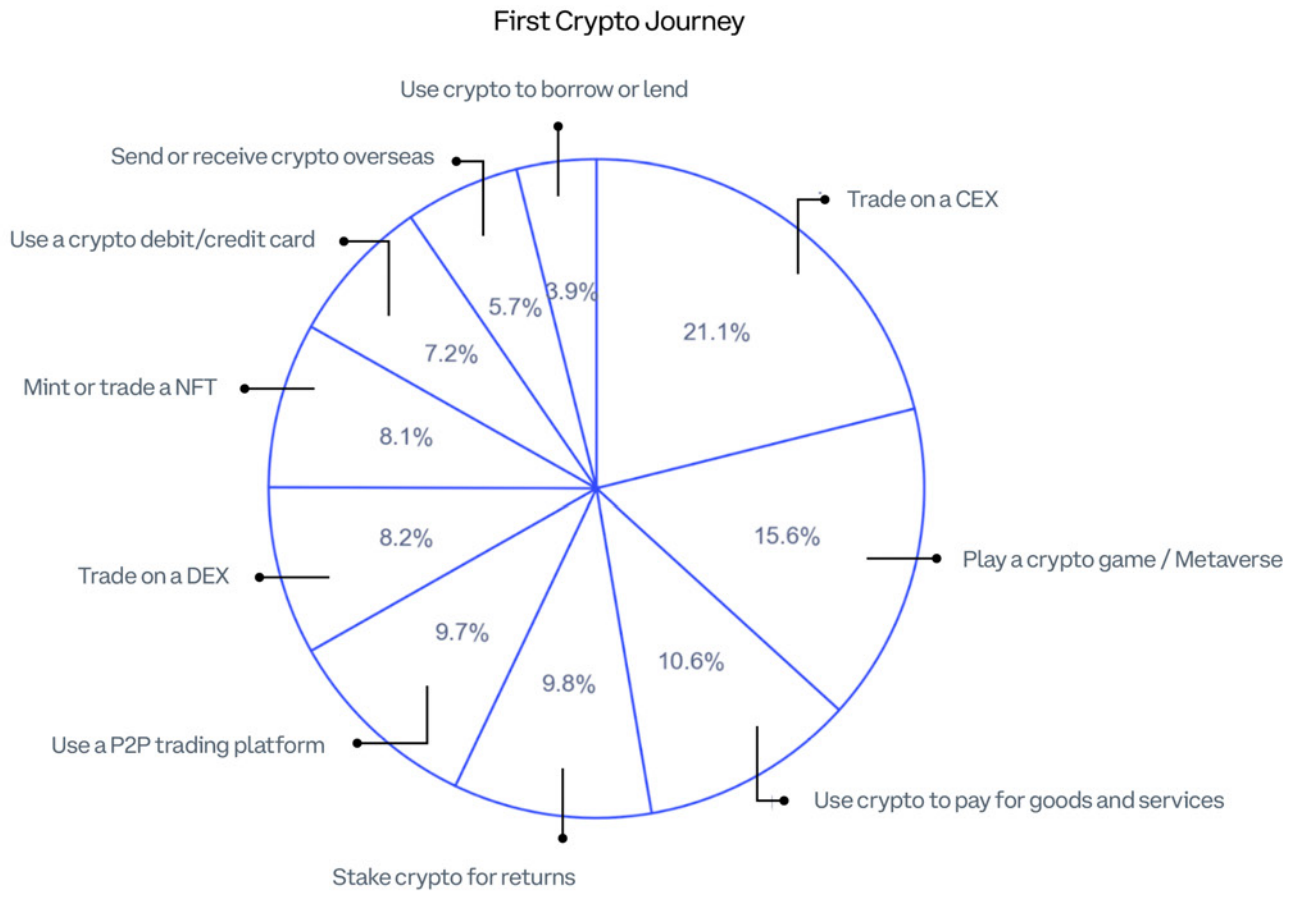
Figure 19



3.2 Entry Point Into Web3

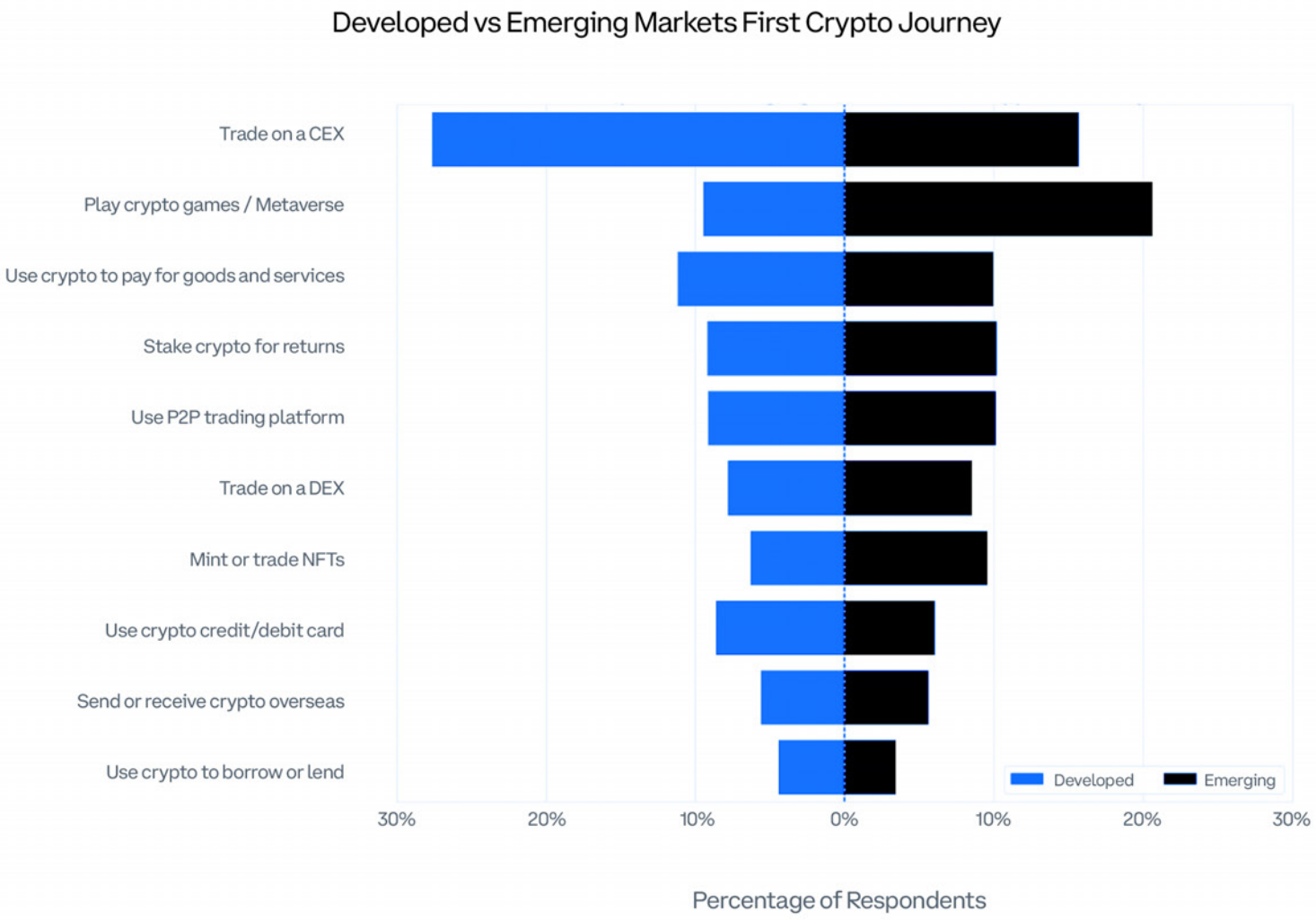
To facilitate the adoption of cryptocurrencies, it is essential to overcome the hurdles that users encounter when they start using Web3. The optimization of user interfaces and the interoperability between different parts of the crypto ecosystem are ongoing. Understanding how people start using Web3 is critical to this effort. In our survey, we asked participants which Web3 use case they started with (survey question Q3c). Figure 20 shows that trading on centralized exchanges is the main entry point into Web3 (21.1%). This is expected since users need to convert fiat to crypto, and centralized exchanges offer this service. Interestingly, the most popular entry points into Web3 mirror the current adoption rates (figure 15), which is not surprising since most crypto users have only had one crypto journey in the past (see figure 13).

Figure 20



The most popular entry point into Web3 services varies by country, as shown in the cross-market analysis in Figure 21. Mirroring the adoption results in figure 17, trading on centralized exchanges is the main entry point for developed countries, where people are more familiar with traditional financial services, while playing crypto games is the key entry point for emerging markets.

Figure 21

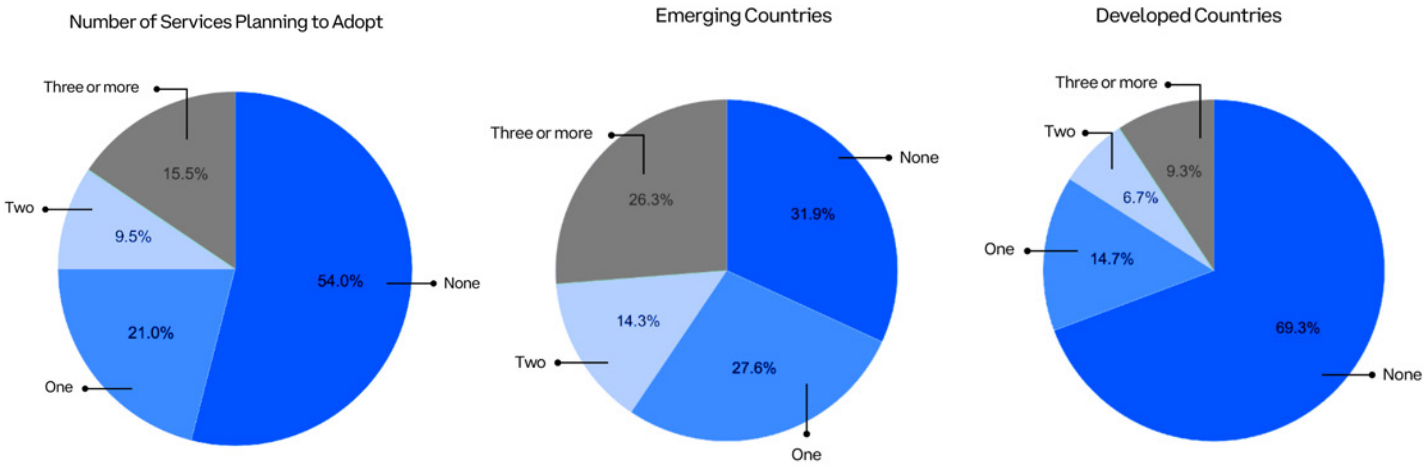


3.3 Future Adoption

As Web3 is a new technology, much of its current value is in its potential for future adoption. In light of this, we asked survey participants about their intentions to use Web3 services within the next three years (survey question Q2d). Figure 21 shows that 46% of respondents plan to adopt at least one of the ten Web3 services in the future, a higher percentage than the 31% who currently use Web3. Interestingly, three times as many people plan to use three or more services in the future, while twice as many want to use two or more. This suggests that respondents are generally optimistic about their future use of Web3 services.

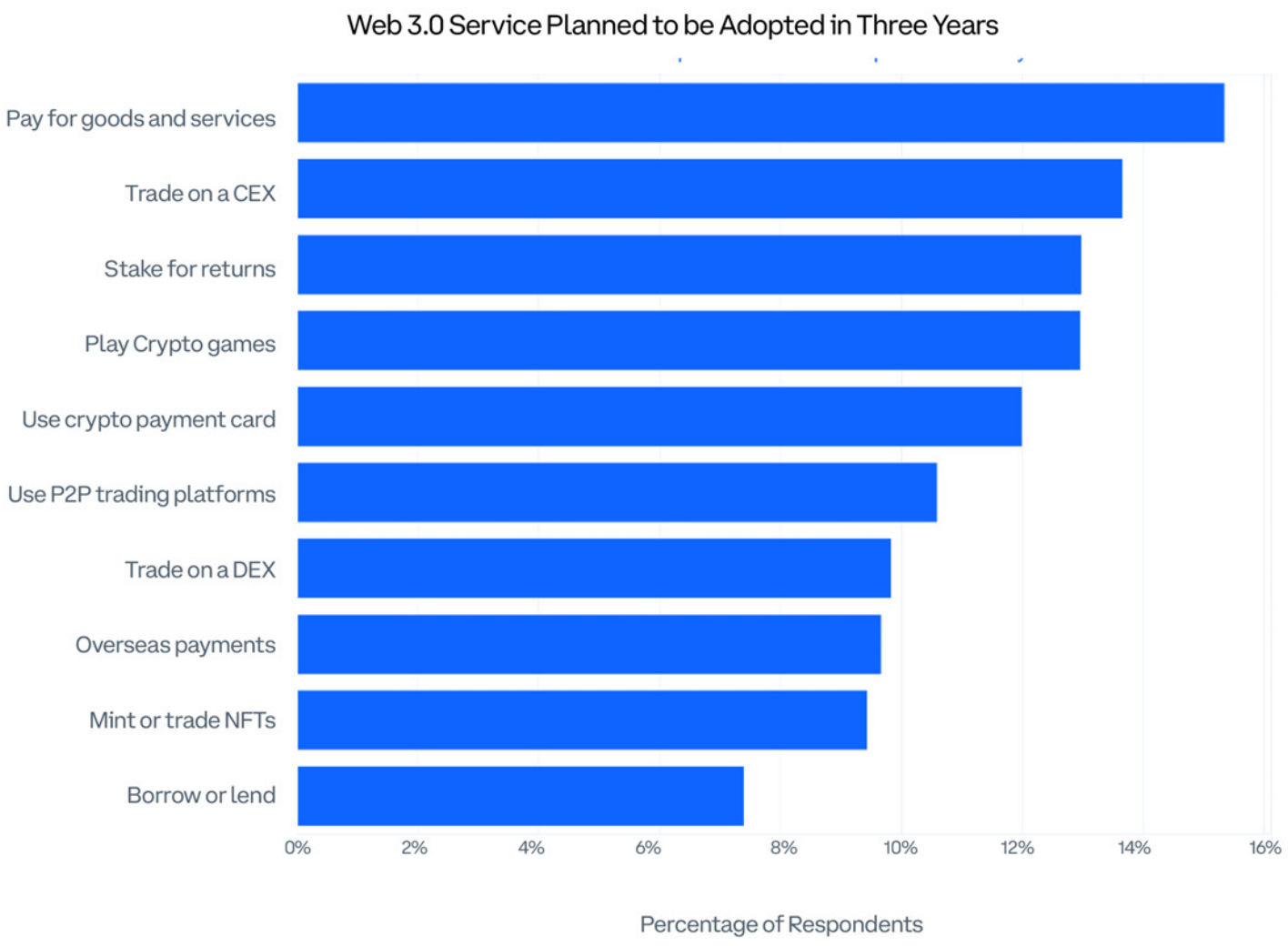
Similar to what we find with current adoption, there is a divide between emerging and developed markets: nearly 70% of people in emerging markets are planning to use at least one Web3 service, compared to only 31.7% in developed markets.

Figure 22



In terms of specific Web3 services, figure 23 shows that 15% of respondents plan to use crypto as a means of payment in the next three years, followed by trading on a centralized exchange (CEX) (13.9%), and staking for returns (13%). These top three services span the three different categories mentioned in table 1, suggesting an overall interest in the full spectrum of Web3 services, rather than in the adoption of a single use case group. Borrowing or lending ranks at the bottom of the chart, with only about 7.2% of respondents indicating interest in this area.

Figure 23



Comparing current use to future intentions, figure 24 shows a positive relationship between the two in general: services currently used more today are more likely to be used in the future. However, there are some interesting deviations. For example, while paying with crypto is the most well-known use case (figure 9), it is not currently the most used one due to issues such as a lack of infrastructure, high exchange rate volatility, and privacy concerns.[14] However, users expect that these issues will be addressed within the next three years, leading to a wider adoption of crypto as a means of payment from the current level of 6% to 16%. This would make it the most popular service, ahead of centralized exchanges (13.9%), staking, or playing crypto games (both 13%). This aligns with the theory that emerging markets are increasingly looking at crypto as legal tender.[15]

[14] Kuhn, Daniel. 2022. "Why Haven't Crypto Payments Taken Off?" CoinDesk. https://www.coindesk.com/layer2/paymentsweek/2022/04/26/why-havent-crypto-payments-taken-off/.

[15] Casanova, Lourdes S. 2021. "Why Emerging Markets Are Early Adopters of Crypto as Legal Tender." International Banker. https://internationalbanker.com/brokerage/why-emerging-markets-are-early-adopters-of-crypto-as-legal-tender/.

Figure 24

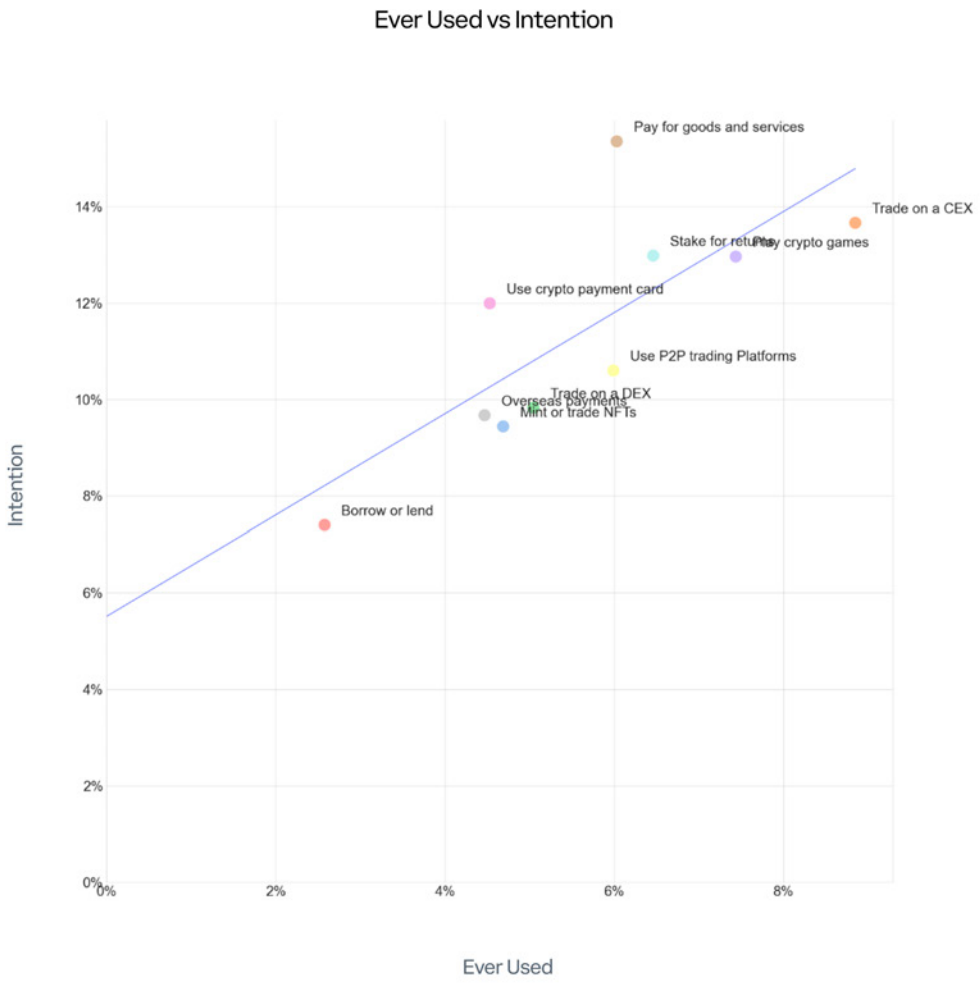


Figure 25 shows that people in emerging markets are more than twice as likely as those in developed markets to adopt crypto in the next three years. This may be due to the higher unbanked population, greater financial risks, and lower adoption rates of banks and credit cards in emerging markets. This also explains the high interest in using crypto as a means of payment. The high ranking for paying for goods and services may also result from people in emerging markets[16] who are currently unsatisfied with their current domestic currencies. Stablecoins, for instance, could provide a real alternative in these economies, where inflationary pressures can result in rapid devaluation of funds.[17] Figure 26 supports this hypothesis to some extent, as it shows that paying for goods and services, staking for returns, and playing crypto games are the top three future use cases in the Philippines, with all three intended by at least 25% of the population, which is higher than any intention in Australia or the United Kingdom.

[16] Casanova, Lourdes S. 2021. "Why Emerging Markets Are Early Adopters of Crypto as Legal Tender." International Banker. https://internationalbanker.com/brokerage/why-emerging-markets-are-early-adopters-of-crypto-as-legal-tender/.

[17] Finance Magnates. 2023. "Stablecoin Adoption Rates in Emerging Markets." https://www.financemagnates.com/cryptocurrency/coins/stablecoin-adoption-rates-in-emerging-markets/.

Figure 25

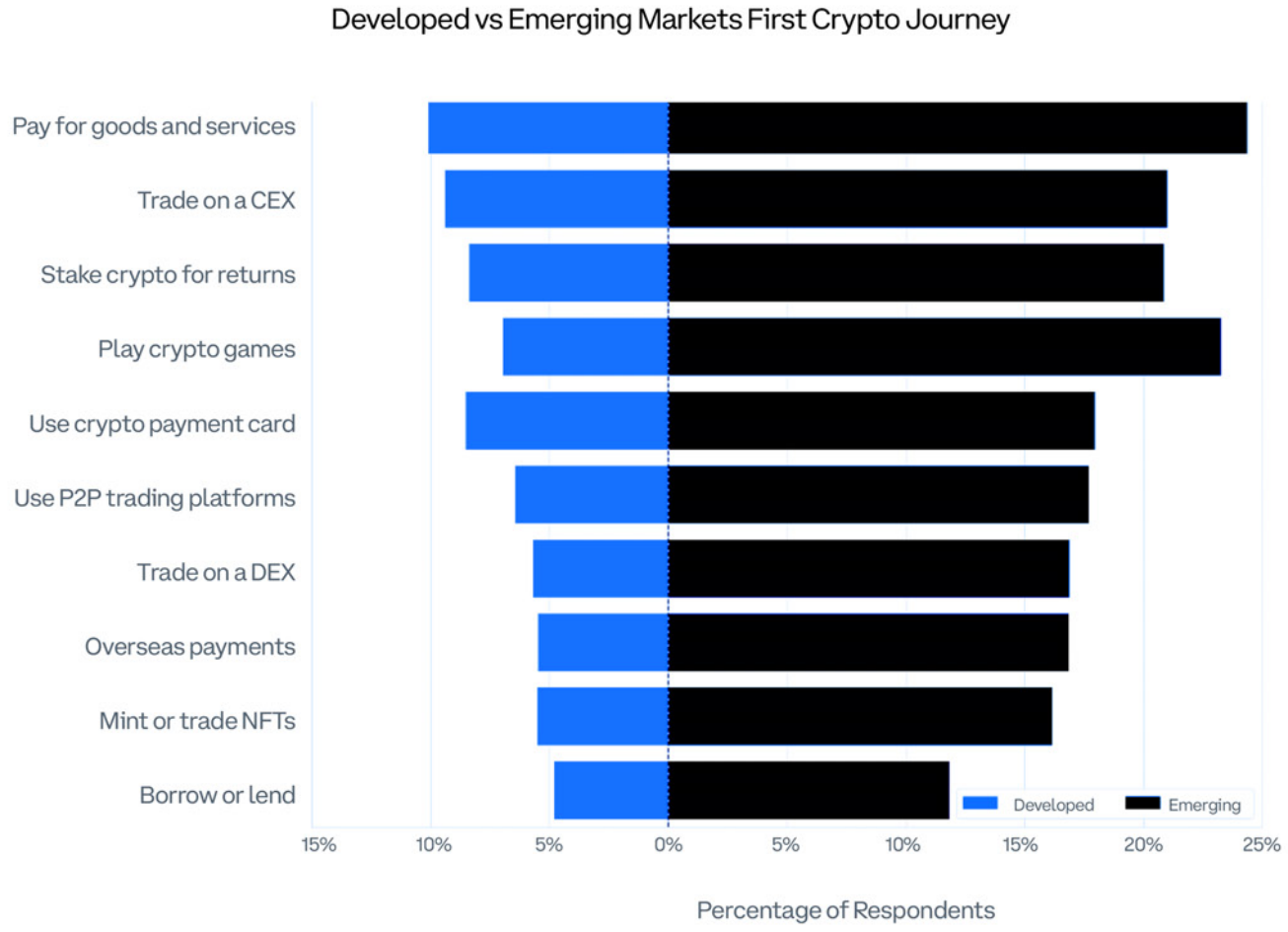


Figure 26

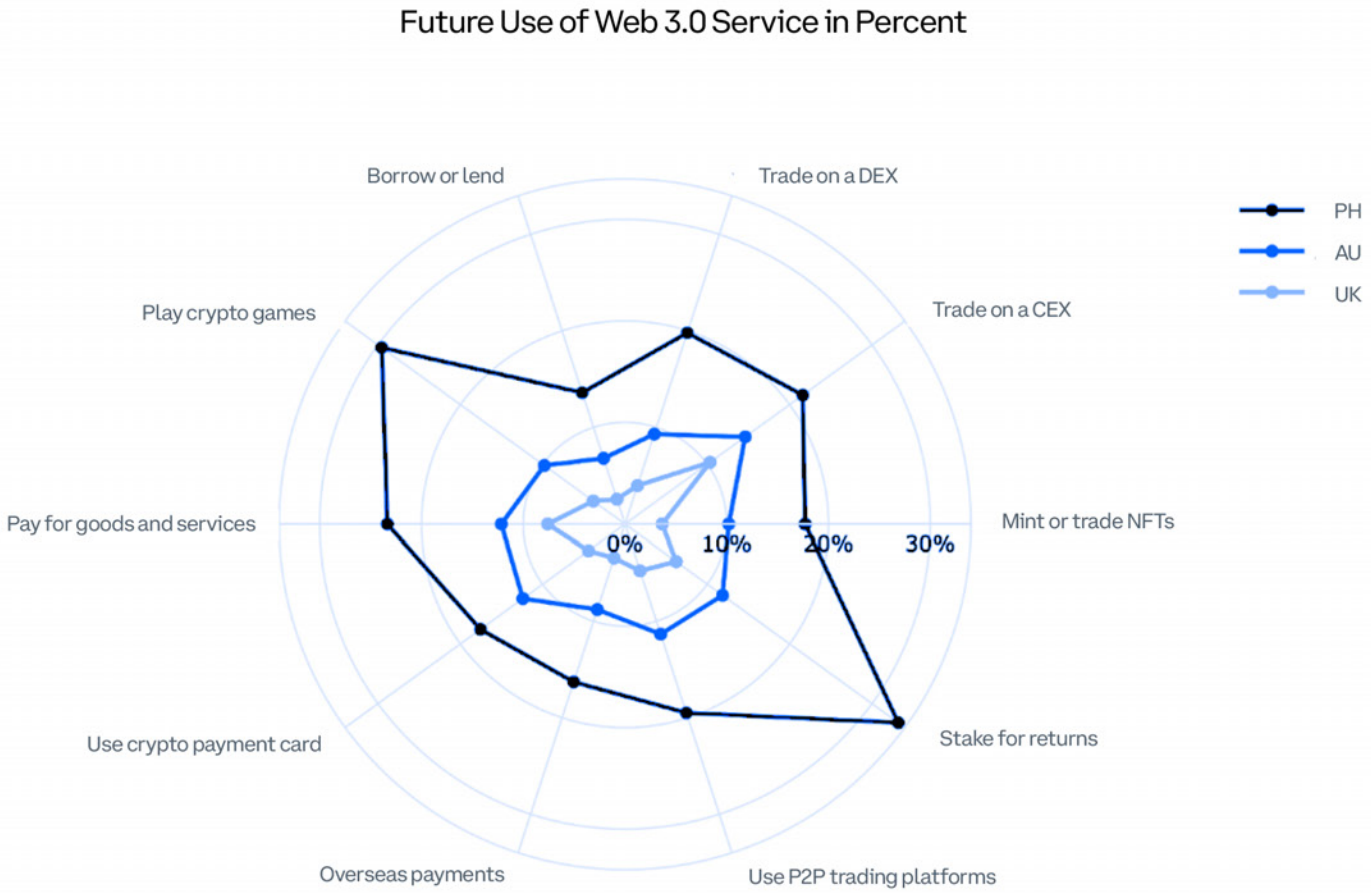
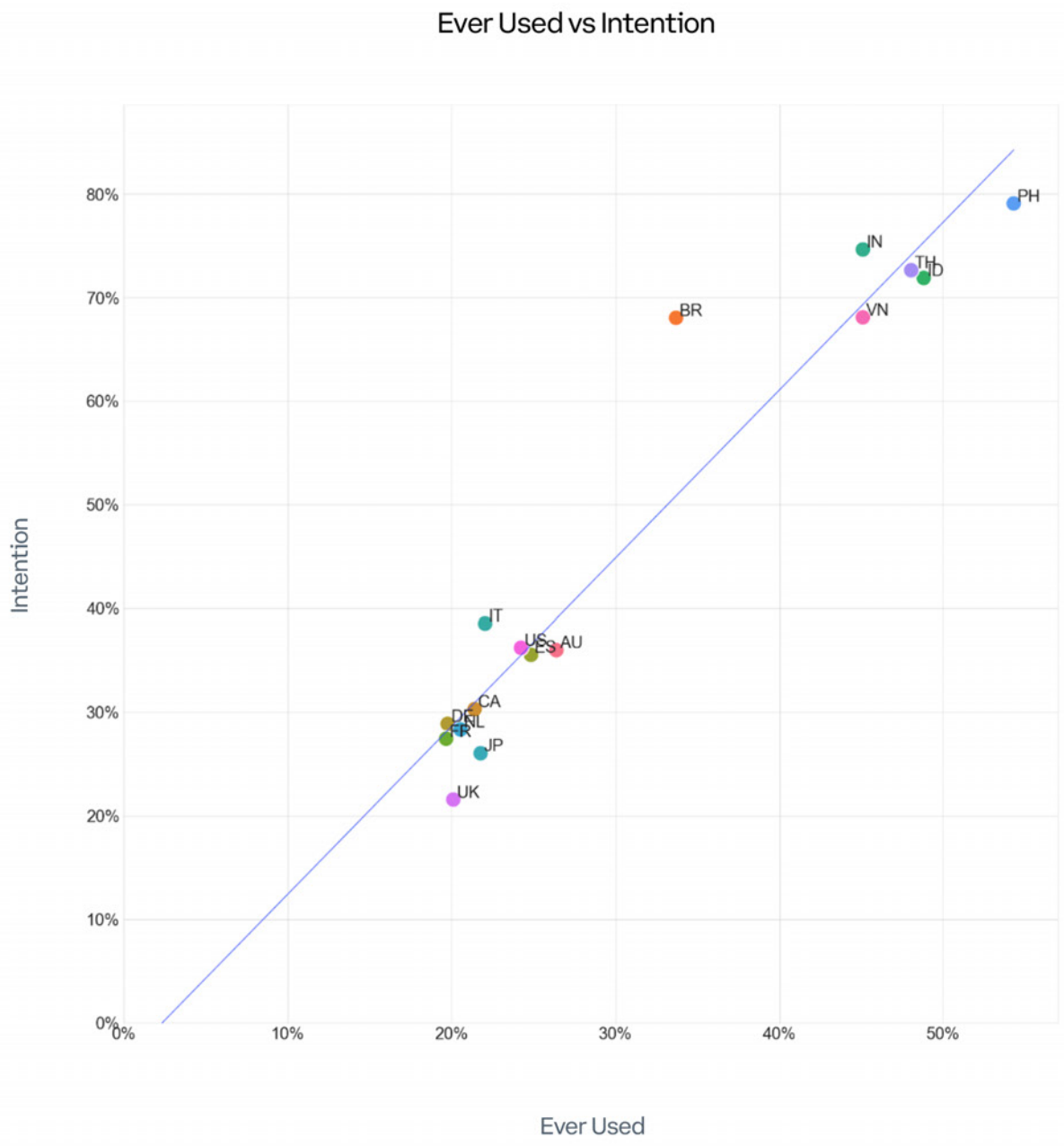


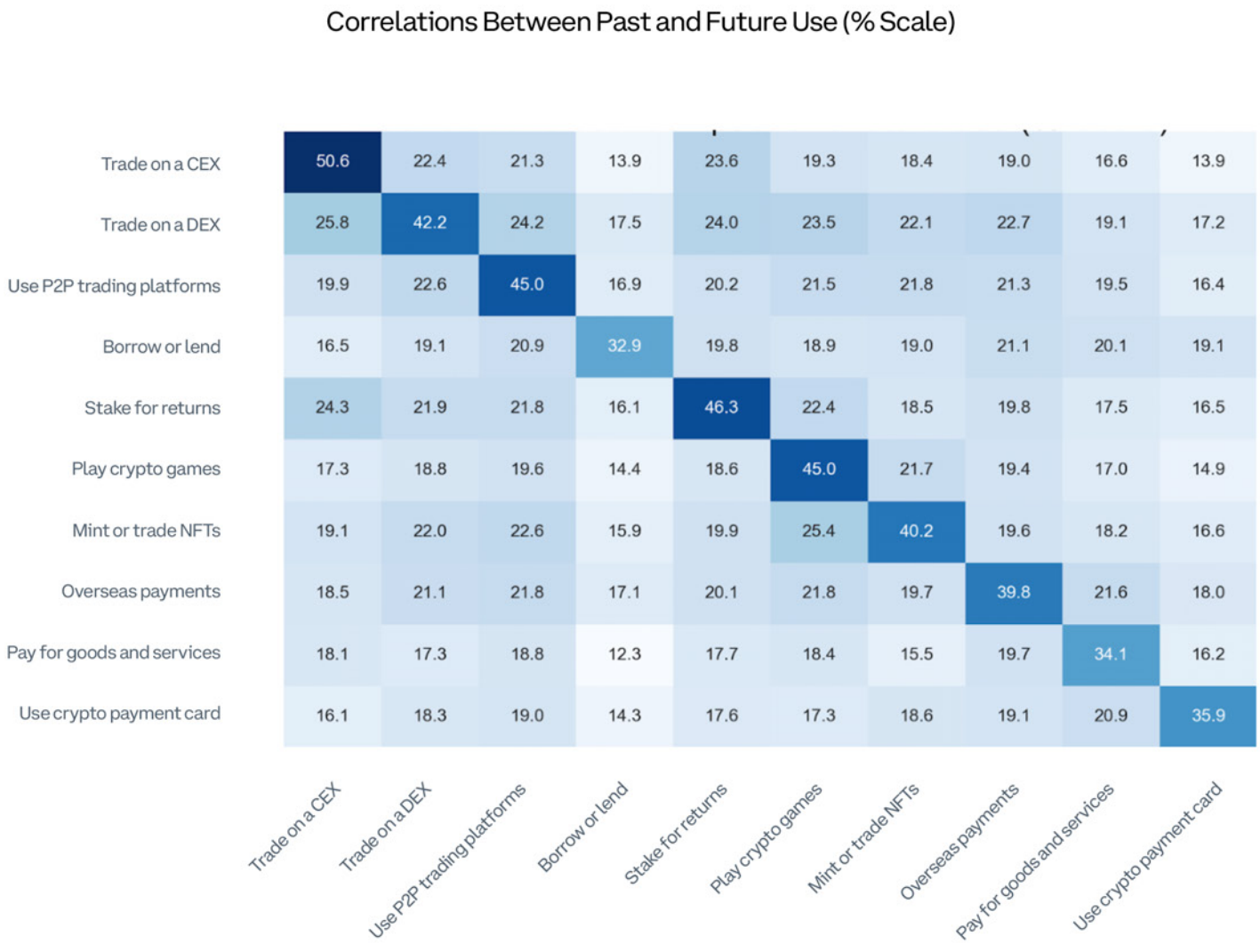
Figure 27 illustrates the relationship between current and future use of Web3 services across countries. The scatter plot reveals a promising trend of approximately 50% increase in the user base over the next three years. It is noteworthy that the intention to use Web3 services is higher than the past usage in all countries, indicating a sustained demand for cryptocurrencies and Web3 technologies. However, the gap between the adoption rates of emerging and developed economies is significant, with emerging markets showing almost double the likelihood of adopting Web3 services within the next three years. For example, in the Philippines, almost 80% of the participants intend to adopt some form of Web3 service, whereas in Australia, only 35% plan to do so. The United Kingdom stands out as a negative outlier, with almost identical percentages for both current and future adoption rates.

Figure 27


Ever Used vs Intention
Intention
Ever Used
0%
10%
20%
30%
40%
50%
60%
70%
80%
PH
IN
TH
ID
BR
VN
IT
US
ES
AU
CA
DE
NL
FR
JP
UK

Finally, in figure 28, we can observe the correlations between current and future adoption for specific use cases. The matrix shows a strong tendency for people to continue using the services they are currently using, as indicated by the highest correlation levels on the diagonal elements. Additionally, the top left corner displays the highest figures, indicating that current crypto traders plan to diversify their trading venues in the future. The lowest correlations are observed in cases where users have used Web3 borrowing or lending in the past, with values ranging from 12.3 to 17.5. Conversely, the highest correlations are observed for using decentralized exchanges, with values ranging from 17.2 to 25.8.

Figure 28

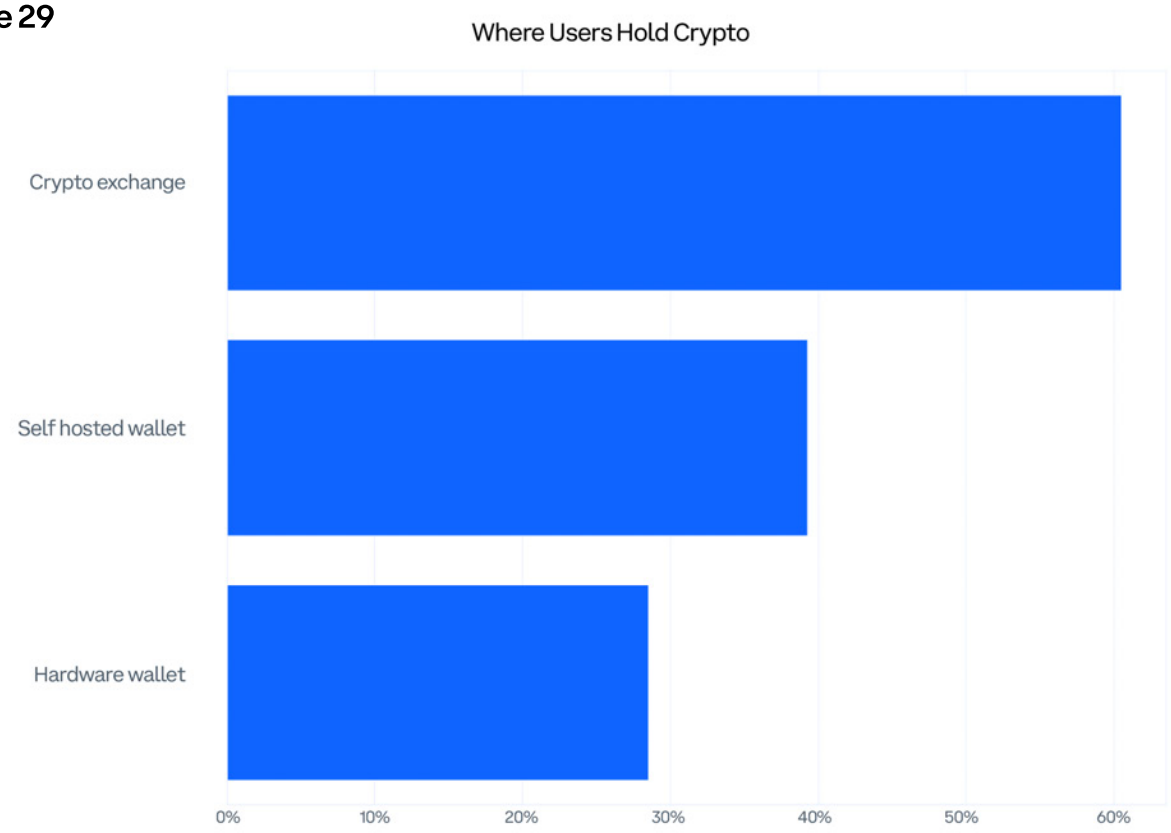


3.4 Storage Methods

We conclude the section on adoption asking crypto users about how they manage their private keys (survey question Q3a). The issue of custody is of utmost importance in the crypto industry, and understanding how individuals manage their keys and any cross-country differences in attitudes towards custody is crucial. Our findings shown in Figure 29 indicate that 60% of crypto users hold assets in crypto exchanges, which is the most popular option by a significant margin. This outcome is unsurprising, as these exchanges also serve as the primary venue for buying crypto, making them a logical location for storing funds. However, Roughly 40% of respondents use self-hosted software wallets, and slightly less than 30% utilize hardware wallets, which provide the most secure storage option. The lower adoption rate of hardware wallets is not unexpected, as it is likely due to their initial cost and the technical knowledge required to operate them. Centralized exchanges, on the other hand, are more familiar to users as they control private keys for them.[18]

[18] "Crypto Storage 101: Crypto Wallet vs. Exchange." 2023. Worldcoin. https://worldcoin.org/articles/crypto-wallet-vs-exchange#toc-2.

Figure 29



When comparing across countries (Table 2), it becomes evident that exchanges are a prevalent method of storing coins, particularly in developed economies. On the other hand, self-hosted wallets are more popular in emerging markets. This outcome is consistent with our earlier statements, which demonstrate that centralized exchanges are the primary gateway into the Web3 economy for developed economies.

Table 2

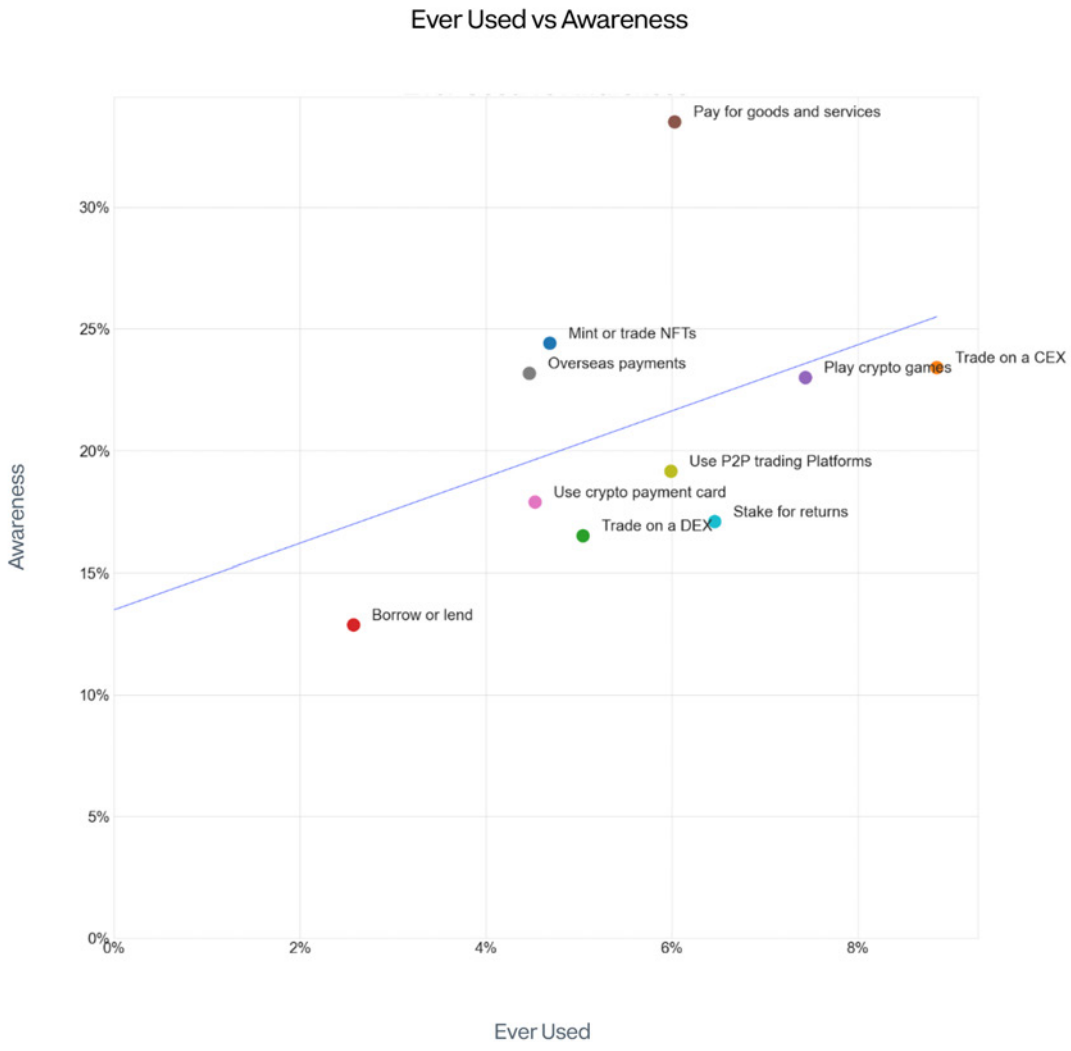
	Crypto Exchange	Self Hosted Wallets	Hardware Wallets
1	Netherlands	Thailand	Australia
2	Australia	Vietnam	India
3	India	India	France
4	Japan	Philippines	Vietnam
5	United Kingdom	United States	Thailand

Part 4

Barriers to Entry

So far, we have found that crypto and Web3 are widely known, but there is significant room to increase adoption. In this section, we examine what the roadblocks to adoption are. As depicted in Figure 30, there is a positive relationship between awareness and adoption. However, a significant adoption gap persists, even among those who possess awareness of Web3 services. This highlights the fact that basic familiarity with cryptocurrencies does not necessarily indicate subsequent usage. For example, while more than 30% of participants are knowledgeable that crypto can serve as a payment method, a mere 6% have employed this feature in practice.

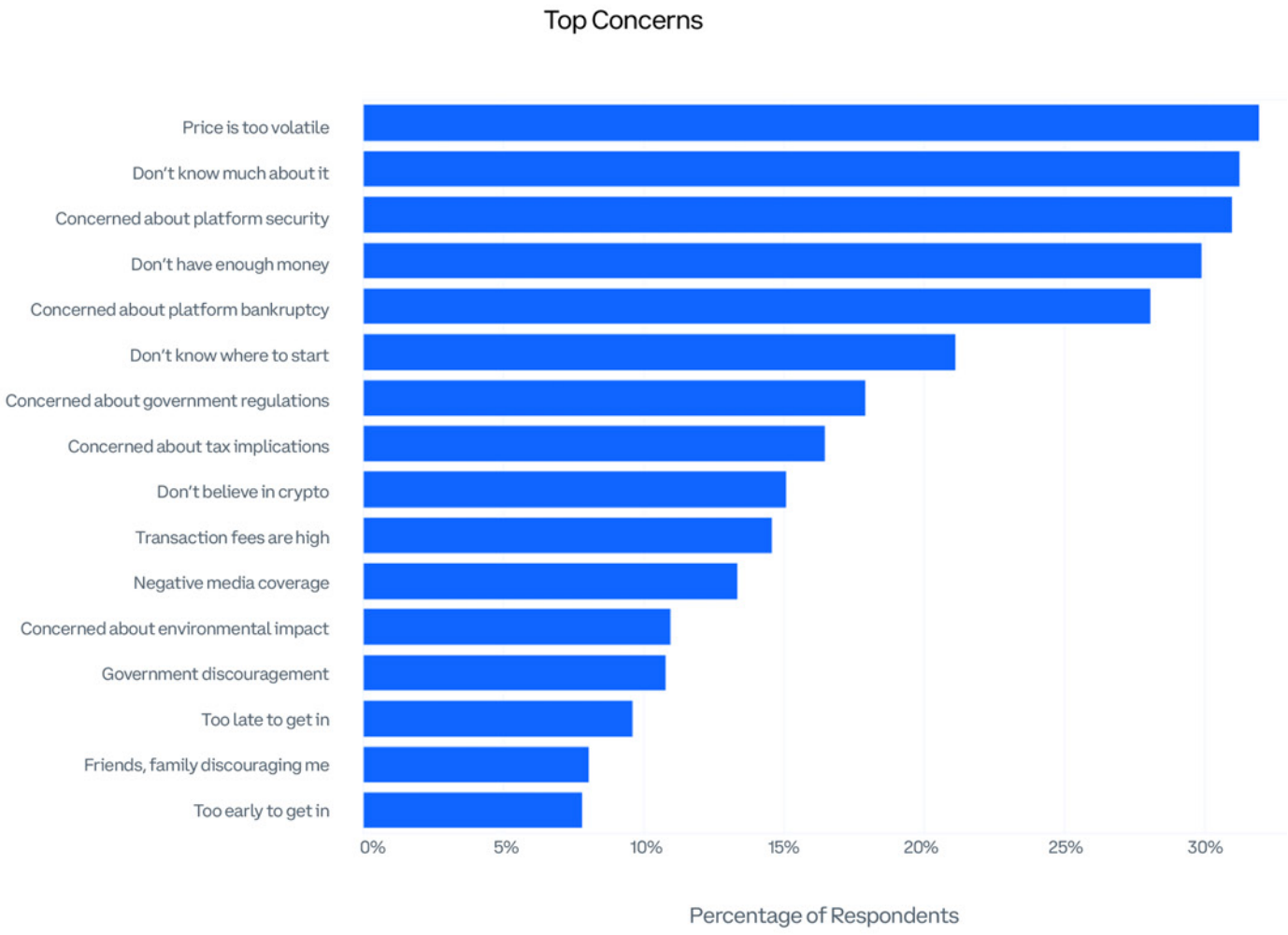
Figure 30



4.1 Current Cryptocurrency Concerns

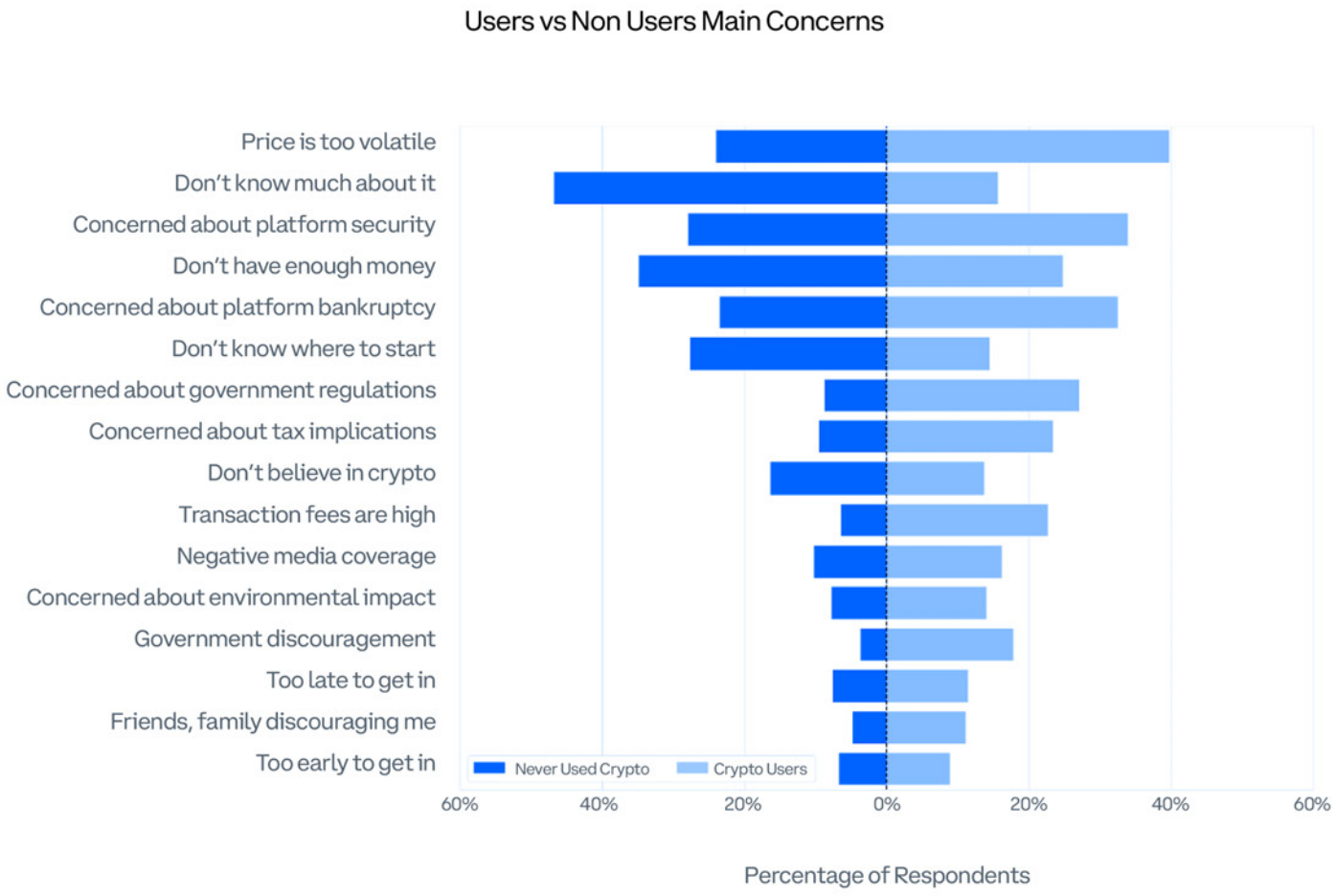
In order to gain a better understanding of the discrepancy between adoption and awareness, we posed a question to our survey participants regarding their top concerns about Web3 services. The results, as displayed in figure 31, indicate that high volatility and a lack of understanding are the primary obstacles hindering wider adoption, followed by a lack of funds. Additionally, platform security and financial stability rank highly as significant concerns. Conversely, market timing and environmental factors are not significant concerns for respondents.

Figure 31



Notably, there exist stark differences in concerns between Web3 users and non-users. Figure 32 illustrates that for crypto users, volatility (40% of respondents), platform bankruptcy (31%), and government regulation (28%) are the top three concerns. Conversely, non-users cited lack of knowledge (44%), lack of funds (35%), and not knowing where to begin (27%) as their primary concerns. These findings highlight a dual strategy for increasing Web3 service adoption: first, by enhancing education and affordability to encourage non-users to engage with the technology, and second, by addressing regulatory and security concerns to further expand the adoption of current users.

Figure 32



Part 5

Conclusions

Web3 services, encompassing crypto payments, gaming, staking, NFTs, and decentralized finance, represent the cornerstone of crypto currencies and platforms. Their success is paramount to the future of the industry. While most surveys on cryptocurrency adoption focus solely on crypto ownership, our study examines the adoption of Web3 services globally.

Our findings reveal that Web3 services have gained significant awareness worldwide, with payments and trading being the most widely recognized services. Over two-thirds of the participants have knowledge of at least one Web3 service. However, this knowledge does not necessarily equate to adoption. For instance, while crypto is well-known as a payment method, only a small proportion of people use it for that purpose. Nevertheless, participants anticipate a 50% increase in their usage of Web3 services as regulatory clarity and technological advancements make them more secure and user-friendly.

Emerging economies, on average, display less awareness of Web3 services compared to developed countries. However, they are more likely to use them currently, and adopt them in the future, with NFTs and gaming being more prevalent in these markets. In contrast, developed countries have lower adoption rates, mainly because of their widespread access to traditional financial services.

The main hurdles towards wider adoption of Web3 services are high volatility, lack of understanding, and lack of funds. Web3 users' top concerns are volatility, platform bankruptcy, and government regulation. Non-users' top concerns are lack of knowledge and not knowing where to start. The survey findings suggest that the key to expanding Web3 adoption is to address regulatory concerns, enhance interoperability within the crypto eco-system and with the traditional financial system, improve the user interface and the ease of use of web3 services, and enhance education and affordability.

Appdendix

Survey flow

1. [All] Screener
    a. Age
    b. Gender
    c. Education
    d. Region

2. [All] Web3 understanding and use cases
    a. Familiarity with cryptocurrency, blockchain technology
    b. Whether crypto use will increase/decrease/stay the same in 3 years
    c. Awareness and usage of crypto use cases
    d. Intention to engage with crypto use cases in next 3 years
    e. Top concerns about crypto

3. [Among users only] Web3 user deepdive
    a. Where do they store their crypto assets?
    b. Which year did they start their crypto journey?
    c. Use case journey - 1st, 2nd...
    d. Motivation for starting each use case
    e. Sources of information
    f. % liquid assets in crypto

4. [All] Demographics and profiling
    a. Bank account ownership
    b. Payment type
    c. Tech and investment profile
    d. Policy or media informed/elites
    e. Household income
    f. Occupation
    g. Marital status
    h. Presence of children <18yo
    i. (Where applicable) Race or ethnicity

Section 1 Screener

What is your age?
[Respondent: All | Numeric input]

Please indicate your gender.
[Respondent: All | Single choice]

1. Male
2. Female
3. Agender/ None
4. Gender fluid
5. Other (Non-Binary, Multiple Genders)

At what age did you finish full-time education?
[Respondent: All | Single choice]

1. 15 or under
2. 16
3. 17-18
4. 19
5. 20+

What racial or ethnic group best describes you?
[Respondent: US only | Single choice]

1. White
2. Black or African-American
3. Hispanic or Latino
4. Asian or Asian-American
5. Native American
6. Middle Eastern
7. Two or more races
8. Other

In which state do you live?
[Respondent: All | Dropdown (country dependent)]

Would you say that you live in an urban, suburban, or rural community?
[Respondent: All | Single choice]

1. Urban
2. Suburban
3. Rural

Section 2 Web3 understanding and use cases

Q2a

Please read the descriptions carefully, then select the statement that best describes your understanding.
[Respondent: All | Single choice]

Statements:

1. Cryptocurrency (or crypto) is a digital or virtual asset that is secured by blockchain technology. This makes it possible to own and securely transfer assets online, without using a middleman such as a bank.
2. A blockchain is a list of transactions that anyone can view and verify. It is managed by a large number of computers (a decentralized peer-to-peer network), that cannot be controlled by governments or authorities. It helps record transactions and track assets. Some benefits of blockchain technology include speed, security, and privacy.

Choices:

1. I have never heard of cryptocurrency/blockchain technology before today.
2. I have heard of some of these descriptions about cryptocurrency/blockchain technology before today.
3. I have heard of most of these descriptions about cryptocurrency/blockchain technology before today.
4. I have heard of all of these descriptions about cryptocurrency/blockchain technology before today.

Q2b

In the next 3 years, I believe that my personal use of crypto will...
[Respondent: All | Single choice]

1. Increase
2. Stay the same
3. Decrease
4. Unsure, don't know

Q2c

Which of these ways of using crypto have you heard of?
[Respondent: All except those answering 1 in Q2a | multiple choice]

1. **Mint or trade a non-fungible token (NFT)**
NFTs are crypto assets with unique identification and ownership. They can represent many things, such as digital art, collectibles, music or videos. For example: Bored Ape Yacht Club, CryptoPunks

2. **Trade on a crypto Centralized exchange (CEX)**
Centralized exchanges are organizations that support crypto trading on a large scale. For example: [pipe in $brands by market].

3. **Trade on a crypto Decentralized exchange (DEX)**
Decentralized exchanges are marketplaces where users swap one crypto asset for another using automated tools called smart contracts. For example: UniSwap, SushiSwap, PancakeSwap

4. **Use crypto to borrow or lend**
Use your crypto as collateral to borrow a different type of crypto asset. Or loan out your crypto and collect interest from it.

5. **Play a crypto game / Metaverse**
Crypto games are online games that let players earn cryptocurrency. The metaverse is a virtual world where you can socialize, shop, play, and build. For example: Axie Infinity, Pegaxy, Battle Infinity, Decentraland

6. **Use crypto to pay for goods or services**
Spend cryptocurrency instead of money to pay for food, clothes, petrol, software, or anything else.

7. Use a crypto credit / debit card
Pay for items using a crypto credit / debit card and earn rewards in crypto. For example: Gemini Credit card, Crypto.com Debit card, Coinbase Debit card.

8. Send or receive crypto overseas
Send or receive crypto from someone overseas instead of using bank transfer or remittance.

9. Use a peer-to-peer trading platform
A peer-to-peer (P2P) trading platform is a marketplace of crypto buyers and sellers, allowing them to communicate with each other and arrange trades at agreed prices. For example: Binance P2P, ByBit P2P, Huobi P2P

10. Stake crypto for returns
When you stake crypto, the crypto is put to work to support the blockchain network, and you receive rewards in return. There can be a minimum staking period, but the crypto belongs to you and you are free to unstake after a period of time.

11. None of the above

Q2cb

Which of the following have you done in the past?
Select all that apply.
[Respondent: All except those answering 11 in Q2c | Multiple choice]

1. Mint or trade a non-fungible token (NFT)
NFTs are crypto assets with unique identification and ownership. They can represent many things, such as digital art, collectibles, music or videos. For example: Bored Ape Yacht Club, CryptoPunks

2. Trade on a crypto Centralized exchange (CEX)
Centralized exchanges are organizations that support crypto trading on a large scale. For example: [pipe in $brands by market].

3. **Trade on a crypto Decentralized exchange (DEX)**
Decentralized exchanges are marketplaces where users swap one crypto asset for another using automated tools called smart contracts. For example: UniSwap, SushiSwap, PancakeSwap

4. **Use crypto to borrow or lend**
Use your crypto as collateral to borrow a different type of crypto asset. Or loan out your crypto and collect interest from it.

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8. **Send or receive crypto overseas**
Send or receive crypto from someone overseas instead of using bank transfer or remittance.

9. **Use a peer-to-peer trading platform**
A peer-to-peer (P2P) trading platform is a marketplace of crypto buyers and sellers, allowing them to communicate with each other and arrange trades at agreed prices. For example: Binance P2P, ByBit P2P, Huobi P2P

10. **Stake crypto for returns**
When you stake crypto, the crypto is put to work to support the blockchain network, and you receive rewards in return. There can be a minimum staking period, but the crypto belongs to you and you are free to unstake after a period of time.

11. None of the above

Q2d

Which of these actions do you intend to do in the next 3 years?
[Respondent: All | Multiple choice]

1. **Mint or trade a non-fungible token (NFT)**
NFTs are crypto assets with unique identification and ownership. They can represent many things, such as digital art, collectibles, music or videos. For example: Bored Ape Yacht Club, CryptoPunks

2. **Trade on a crypto Centralized exchange (CEX)**
Centralized exchanges are organizations that support crypto trading on a large scale. For example: [pipe in $brands by market].

3. **Trade on a crypto Decentralized exchange (DEX)**
Decentralized exchanges are marketplaces where users swap one crypto asset for another using automated tools called smart contracts. For example: UniSwap, SushiSwap, PancakeSwap

4. **Use crypto to borrow or lend**
Use your crypto as collateral to borrow a different type of crypto asset. Or loan out your crypto and collect interest from it.

5. **Play a crypto game / Metaverse**
Crypto games are online games that let players earn cryptocurrency. The metaverse is a virtual world where you can socialize, shop, play, and build. For example: Axie Infinity, Pegaxy, Battle Infinity, Decentraland

6. **Use crypto to pay for goods or services**
Spend cryptocurrency instead of money to pay for food, clothes, petrol, software, or anything else.

7. **Use a crypto credit / debit card**
Pay for items using a crypto credit / debit card and earn rewards in crypto. For example: Gemini Credit card, Crypto.com Debit card, Coinbase Debit card.

8. **Send or receive crypto overseas**
Send or receive crypto from someone overseas instead of using bank transfer or remittance.

9. **Use a peer-to-peer trading platform**
A peer-to-peer (P2P) trading platform is a marketplace of crypto buyers and sellers, allowing them to communicate with each other and arrange trades at agreed prices. For example: Binance P2P, ByBit P2P, Huobi P2P

10. **Stake crypto for returns**
When you stake crypto, the crypto is put to work to support the blockchain network, and you receive rewards in return. There can be a minimum staking period, but the crypto belongs to you and you are free to unstake after a period of time.

11. **None of the above**

Q2e

Non-users asked: What are the top reasons why you have never owned crypto? Users asked: What are your top concerns about crypto?
[Respondent: All | Up to five choices]

1. Price of cryptocurrency is too volatile
2. Too early to get in
3. Too late to get in
4. I don't have enough money to invest
5. I don't believe that cryptocurrency or blockchain technology will be widely used in future
6. Friends, family discouraging me
7. Government discouraging retail investors
8. Transaction fees are high
9. Concerned about the security of crypto platform from hacks or scams
10. Concerned about crypto platforms going bankrupt
11. Concerned about government regulations
12. Negative media coverage
13. Concerned about tax implications

14. Concerned about environmental impact
15. I don't know much about it
16. I don't know where to start (which coin, how to buy)
17. Others

Section 3 Web3 user deepdive

Q3a

Where do you store your crypto?
[Respondent: Crypto users only | Multiple choice]

1. Hardware wallet

A physical device that you can use to store your private keys and crypto assets offline. You are given 12-24 unique words that must be used to access your hardware wallet. For example: Ledger, Trezor, SafePal

2. Self-hosted (self-custody) wallet

An app or browser extension that you can use to store your private keys online. You are given 12-24 unique words that must be used to access the self-hosted wallet. For example: MetaMask, Coinbase Wallet, Binance Trust Wallet, Ronin, Rainbow

3. Crypto exchange (hosted wallet)

Crypto exchanges are organizations that support crypto trading on a large scale.

4. Others

Q3b

Thinking about the first time you bought/sold/owned crypto, what year was it?
[Respondent: Among Crypto users | YYYY dropdown starting in 2009]

Q3c

Thinking about your crypto journey, what uses did you start with first, then next, then next?
[Respondent: Among Crypto users | dropdown from Q2cb options for each use]

1. 1st crypto use
2. 2nd crypto use
3. 3rd crypto use
4. 4th crypto use
5. 5th crypto use
6. 6th crypto use
7. 7th crypto use
8. 8th crypto use
9. 9th crypto use
10. 10th crypto use

Q3d

Why did you start trading/using crypto in this way?
[Respondent: Among Crypto users | Select three reasons per use case]

Use Case:

1. Mint or trade a Non-fungible token (NFT)
2. Trade on a crypto Centralized exchange (CEX)
3. Trade on a crypto Decentralized exchange (DEX)
4. Use crypto to borrow or lend
5. Play a crypto game / metaverse
6. Use crypto to pay for goods or services
7. Use a crypto credit / debit card
8. Send or receive crypto overseas
9. Use a peer-to-peer trading platform
10. Stake crypto for returns

Reason:

1. Higher investment returns
2. Diversify my investment portfolio
3. Earn additional income
4. To have fun
5. Maintain the value of my assets (against rising inflation)

6. For better rewards, incentives
7. To participate in interesting crypto projects
8. Believe that cryptocurrency or blockchain technology will be widely used in future
9. Friends, family encouraging me to
10. Wanted to learn more, was curious about it
11. Fear of missing out, heard a lot of buzz around it
12. I saw celebrities or someone I admire getting into crypto
13. Pay lower transaction fees
14. Ease of transaction
15. For greater security
16. To be in control of my assets and data privacy
17. Others

Q3e

What sources do you rely on for crypto information? Select all that apply.
[Respondent: Among Crypto users |Multiple choice]

1. Google search
2. Online reviews
3. Financial news (eg: Yahoo Finance, Financial Times, Bloomberg)
4. Crypto websites (eg: Coindesk, Cointelegraph)
5. Crypto influencers or experts
6. Academic sources (e.g. classes, courses, articles)
7. Technical information (e.g. whitepapers, GitHub, block explorers)
8. Conferences and public events
9. Mainstream news
10. Family, friends
11. Social media (eg: Twitter, Discord, Reddit)
12. YouTube
13. Blogs, newsletters from crypto exchange
14. Others

Q3f

Thinking about your cash assets and investments (savings account, stocks, mutual funds, etc. Excluding property), what percent of your total portfolio is invested in crypto?
[Respondent: Among Crypto users | numeric input 1-100]
[1-100]%

Section 4 Demographic and profiling

Q4a

Do you have a bank savings or checking account?
[Respondent: All | Single choice]

1. Yes
2. No

Q4b

Which of the following do you currently use to make payment?
Select all that apply.
[Respondent: All | Multiple choice]

1. Cash
2. Cheque
3. Bank transfer
4. Credit card or debit card
5. Digital wallet or Payment app (eg: GooglePay, PayPal, Venmo, CashApp, GrabPay, GCash)

Q4c

How much do you agree or disagree with the following statements?
[Respondent: All | Select one response per statement]

Statement:
1. I am an experienced investor
2. I am among the first to adopt new technologies
3. I am a high risk taker
4. I feel comfortable making decisions without needing to know every detail
5. I trust the banking and financial institutions in this country

Response:
1. Completely disagree
2. Disagree
3. Neutral
4. Agree
5. Completely agree

Q4d

Q4d) Which of the following topics do you actively follow or keep up with? Select all that apply.
[Respondent: All | Multiple choice]

1. Financial policy and regulation
2. Public policy
3. Politics
4. Crypto policy and regulation
5. Sports
6. Entertainment
7. Scientific discoveries
8. None of the above

Q4e

Q4e) Thinking back over the last year, what was your family's annual income?
[Respondent: US participants | Single choice]

1. Less than $10,000
2. $10,000 - $15,000
3. $15,000 - $20,000
4. $20,000 - $25,000
5. $25,000 - $49,999
6. $50,000 - $74,999
7. $75,000 - $99,999
8. $100,000 - $124,999
9. $125,000 - $149,999
10. $150,000 - $174,999
11. $175,000 - $199,999
12. $200,000 - $249,999
13. $250,000 - $299,999
14. $300,000 - $349,999
15. $350,000 - $399,999
16. $400,000 - $449,999
17. $450,000 - $499,999
18. $500,000 or more
19. Prefer not to say

Q4f

Which of the following best describes the work you do?
[Respondent: All | Single choice]

1. Management, professional (doctor, lawyer, architect)
2. Business, finance, administrative
3. Sales, marketing, advertising
4. IT, technology
5. Supply chain, logistics
6. Agricultural, mining
7. Service, retail worker
8. Engineer, technician
9. Manufacturing, utilities worker
10. Driver, security, construction worker
11. Healthcare worker
12. Civil servant, education, social worker
13. Arts, crafts, designer
14. Small business owner, self-employed
15. Student
16. Homemaker
17. Retired
18. Unemployed
19. Other office
20. Other skilled
21. Other unskilled
22. Others (open)
23. Not Applicable - I don't work

Q4g

What is your current marital or relationship status?
[Respondent: All | single choice]

1. Married or in a civil partnership
2. Living with a partner, but neither married nor in a civil partnership
3. Single
4. Divorced
5. Widowed
6. Separated but still legally married or in a civil partnership
7. In a relationship, but not living together
8. Other
9. Prefer not to say

Q4h **Are you the parent or guardian of any children under the age of 18?**
[Respondent: All | Single choice]

1. Yes
2. No

Q4i **What racial or ethnic group best describes you?**
[Respondent: US only | Single choice]

1. White
2. Black or African-American
3. Hispanic or Latino
4. Asian or Asian-American
5. Native American
6. Middle Eastern
7. Two or more races
8. Other