PAGE ONE Economics®
Middle School Version

Focus on **FINANCE**

Peer-to-Peer (P2P) Payment Services

Andrea J. Caceres-Santamaria, Senior Economic Education Specialist

> "Mobile devices, high-speed data communication, and online commerce are creating expectations that convenient, secure, real-time payment and banking capabilities should be available whenever and wherever they are needed."
> —Federal Reserve Chair Jerome Powell[1]

GLOSSARY

Cash advance: A short-term loan from a bank or alternative lender. It features fast approval and quick funding, but it often comes with higher fees than other options.

Check: A printed form directing a bank to withdraw money from an account to pay it to another account.

Debit card: A plastic card similar to a credit card that allows money to be withdrawn or payments made directly from the holder's bank account.

Goods: Objects that satisfy people's wants.

Interest rate: The percentage of the amount of a loan that is charged for a loan. Also, the percentage paid on a savings account.

Money order: A certificate that is backed by cash and issued by a government or bank. The buyer of a good buys the money order and sends it to the seller of the good. The seller can then cash the money order.

Opportunity cost: The value of the next-best alternative when a decision is made; it's what is given up.

Transaction costs: The costs associated with buying or selling a good, service, or financial asset.

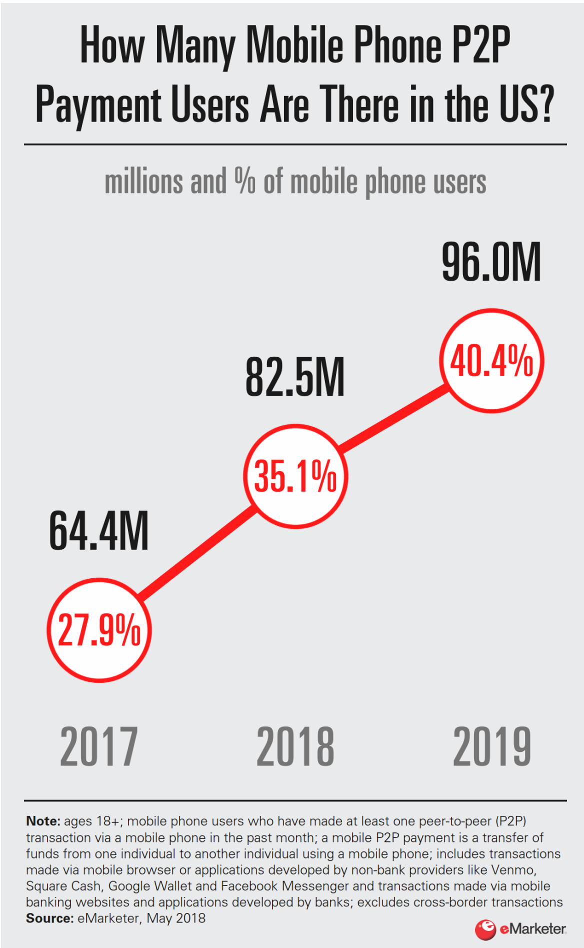
Introduction

Think of all the daily tasks we do with our smartphones. In addition to communicating through texts and calls, we can start a car and lock or unlock doors. Also, phones give us immediate access to our finances. Smartphones have increasingly become a part of our financial lives. The creation of smartphone bank applications (apps) allow people to deposit checks without having to go to a bank branch. People can also transfer money quickly and check credit card and bank account balances immediately after a transfer of funds. Transferring money within accounts, such as between your savings and checking accounts, is a feature that's been available for many years. Transferring money to friends and family who may have different banks is different, and it's becoming increasingly popular.

Do you ever split a bill for pizza or go in on a gift for a friend or family member? For people with a bank account, this may mean withdrawing money from an automatic teller machine (ATM) or writing a check to someone. Constant connection to the internet has made the ability to use and send money faster than ever before. Peer-to-peer (P2P) payment services allow users to link their bank accounts to an app that makes the digital transfer of money between two people possible. The transfer can happen even if they each have accounts at different banks. According to Bank of America's Trends in Consumer Mobility Report,[2] 36 percent of adults in the United States are using P2P services. eMarketer.com reports that in May 2018, 40.4 percent of mobile phone users made at least one P2P transaction that month (Figure 1). Guess which generation has the most significant usage? Millennials (the generation born from 1981-96), who lead with 62 percent, have the most P2P payments usage.[3]

Mobile phone users can use P2P payment services through a variety of apps. Some P2P payment smartphone apps are offered through banks,

Figure 1



SOURCE: Cakebread, C. "Who's Using P2P Payments in the US?" eMarketer, December 5, 2018; https://www.emarketer.com/content/the-mobile-series-mobile-peer-to-peer-payments-infographic.

making them bank-centric. This is an additional service to account holders. P2P payment options that are not offered through bank apps are known as third-party apps. Third-party apps ask a user to give the app access to their personal bank account. The authorized account is where money will be transferred in and out of. These apps have facilitated economic activity and helped lower transaction costs. While there are many benefits, there are some drawbacks as well.

Using P2P Payment Services

Software programs are developed to manage the send-and-receive process with P2P payments. PayPal was the first P2P payment service. eBay and other online stores popularly use it. To make or receive a payment, users create a PayPal account and link it to their bank account. Users can also pay with a credit or debit card through PayPal. People can transfer money digitally through this service instead of paying with a **money order** or **check**.[4] These digital transfers are more efficient methods of payment because of the faster send-and-receive process.

A newer wave of P2P payment services are even faster because they are real-time payments. Real-time payments provide the person making the payment instant confirmation that money was transferred. The person receiving the money will have instant access to the money the moment the transfer is done. In the U.S. there are over 20 apps, and it is forecasted that P2P payments totaled about $17 billion in 2019.[5]

P2P Payment Apps: A Variety of Features

P2P payment apps have similarities and differences in their services, fee structures, and money access. A similarity between many of the apps is how easy it is to link to a bank account at no cost to the user for transferring or receiving payment. The ease of use is a draw for consumers to use the apps. Users do not need each other's account information to make or receive real-time payment. Instead, they can use the email or phone number associated with an account. Each P2P payment service does set daily transfer limits. The apps also have a type of digital wallet where money can be stored, known as a stored value account. The balance in the account is tracked through the app. The money stored in this type of account can be used to pay for purchases from online stores that accept this form of payment. As an alternative way to access the stored money, some third-party apps offer the user a card. This card is used similarly to a **debit card**. It is used to withdraw money from a digital wallet. Although, it must be done using an in-network ATM to avoid a fee (Figure 2).[6] If users do not get a separate card linked to the digital wallet, they can access money in their stored value account by transferring it to their bank account. Then, they can withdraw it from an ATM using their bank's debit card.

Except for bank-centric apps, P2P payment services allow users to link an account to a personal credit card. The credit card can be used as a source of money, but there is a fee of at least 3 percent to do so for each transaction.[7] If someone uses a credit card to pay another person through a P2P app, they need to do so carefully. Credit

Figure 2
Digital Wallets

Wallet	Bank-centric	Fees	Stored value
PayPal	No. Publicly held company; NASDAQ: PYPL. $9.2 billion revenue reported for full year 2015.	Send P2P using debit/credit card: 2.9% plus $0.30 USD. Free if using bank account (ACH).	Yes
Venmo	No. Acquired by PayPal in 2014.	Send P2P using credit card: 3%. Free if using debit/prepaid/ bank account (ACH).	Yes
ClearXchange (Zelle)	Yes. ClearXChange (an Early Warning company) is owned by Bank of America, BB&T, Capital One, Chase, PNC, U.S. Bank, and Wells Fargo.	None for P2P.	Yes
Popmoney	Yes. Service provided by Fiserv, integrated into over 1,000 FIs.	Send P2P using debit/ bank account (ACH): $0.95. Credit cards not accepted.	No
Snapcash	No. Built on top of Square Cash.	None. Debit cards only.	No
Facebook Messenger	No	None. Debit cards only.	No
Google Pay	No	Send P2P using debit/credit cards: 2.9% plus $0.30 USD. Free if using bank account (ACH).	Yes
Square Cash	No	Send P2P using credit cards: 3%. Free if using debit/prepaid/ bank accepted (ACH).	No. Funds come directly from bank account, sent direclty to bank account tied to debit card.
Apple Pay Cash	No. Only works between iPhone/iPad/Apple Watch owners.	Send P2P using credit cards: 3%. Free if using debit.	Yes. Payments sent to/stored on virtual debit card. Stored funds can be used in Apple Pay transactions.

SOURCE: Grilli, L. "P2P—A Comprehensive Look at Person-to-Person Payments." *Payments Review*, January 12, 2017; http://www.thepaymentsreview.com/a-look-at-p2p-payments.

card companies are likely to see the transaction as a **cash advance**. These companies charge a higher **interest rate** when a transaction is processed like a cash advance.

Alternative Payment Services Facilitate Economic Activity

Before P2P services, a simple task such as paying the rent required a series of time-consuming steps. These steps included finding your checkbook, writing a check, finding an envelope, filling the envelope, finding a stamp, addressing the envelope, and then walking to the mailbox and off it goes. This is followed by waiting for the landlord to deposit the check and, a few days later, seeing that the money was withdrawn from your account. The **transaction costs** are not always monetary. In the case of writing the rent check, it is time and resources spent on you writing the check and your landlord waiting to receive payment.

We can think about **opportunity cost** in the above example. This is because there is likely something else that someone would rather do than write and mail a check. The person making the rent payment would have to pay close attention to their checking account to be sure the money remained available until the check cleared. With P2P payment services, transaction costs are greatly lowered. The money is transferred and available almost immediately. In this case, these are transactions that cannot be paid by credit or debit.

P2P services provide a much faster way to make payments, so they facilitate economic activity. Banks offer these faster payment services because they want to provide many options for customers to access their money. These lower transaction costs benefit consumers. The faster people have access to their money, the quicker they can either save it or buy **goods** and services.

A few businesses are also seeing the benefits of giving customers the option to pay using P2P payment services. This is because credit and debit card payments have transaction costs for businesses of up to 3 percent of a sale. Businesses also have to wait a few days for the money to clear. Once it clears, it will be transferred from the card company to a business's account. Cash payments have lower transaction costs, and final settlements occur in real time. But not everyone carries cash with them. With P2P services, digital wallets offer the benefit of real-time payments to businesses at a price of up to 2.9 percent plus $0.30 per transaction.[8] Even though it still costs the business money, it is faster than credit or debit payments. Having quicker access to money means businesses can efficiently pay their workers and other costs.

P2P payment services also facilitate economic activity through contractors and freelancers. These workers could always bill an individual or a business and then wait for a check. But, in a world of "the quicker, the better," payments to contractors and freelancers can be made immediately once their work is completed. Workers can rely on having their earnings more quickly in order to pay their bills. Business owners who hire contractors and freelancers report that some advantages of these payment services are not having to mail a check or pay to reorder checks through their banks. They have also reported increased access to a bigger network of freelancers.[9]

Careful Use Is Recommended

P2P payment services, in most cases, do not come with the same protections as other bank payment services such as debit and credit cards.[10] For example, some payment service users have sent money to the wrong person by mistake. This happens when a user misspells an email or enters a phone number incorrectly. Zelle has a very clearly written policy that states the user is solely responsible for entering the correct information. The company also consistently advertises that its service should be used only with people the users trust. Some banks that provide the P2P payment service for their customers also make it clear that they are not responsible for refunding money that was sent to the wrong person because of user error. Venmo states that it may not be able to help if the person who received the payment refuses to return the funds. Scammers know this and may try to get you to send money using a P2P payment service. Unfortunately, there is no law in place that requires the P2P payment service to help recover the funds.

Conclusion

Speed, convenience, and efficiency are what many customers look for in any service. P2P payment services can provide all three when it comes to sending money digitally. As with any technology that uses personal information, it requires careful use, including reading the privacy policies carefully and not falling prey to any scam. Making P2P payment services more accessible and safer for all users seems like it could provide many possibilities in the future. ■

Notes

[1] Kundariya, H. "Top 10 Major Disruptive Technologies & Trends in Banking Sector." *eSparkBiz*, April 22, 2019; https://www.esparkinfo.com/technologies-trends-in-banking-sector.html.

[2] "Bank of America Trends in Consumer Mobility Report." Bank of America *Newsroom*, May 12, 2017; https://newsroom.bankofamerica.com/press-kits/bank-america-trends-consumer-mobility-report.

[3] Cakebread, C. "Who's Using P2P Payments in the US?" *eMarketer*, December 5, 2018; https://www.emarketer.com/content/the-mobile-series-mobile-peer-to-peer-payments-infographic.

[4] "PayPal." *Encyclopedia Britannica*, February 4, 2019; https://www.britannica.com/topic/PayPal.

[5] Rotatori, D. "Real-time Payments Are Changing the Reality of Payments." Deloitte, 2015; https://www2.deloitte.com/content/dam/Deloitte/us/Documents/strategy/us-cons-real-time-payments.pdf.

[6] Grilli, L. "P2P—A Comprehensive Look at Person-to-Person Payments." *Payments Review*, January 12, 2017; http://www.thepaymentsreview.com/a-look-at-p2p-payments.

[7] Eckstein, J. "How Safe Is Venmo and Is it Free?" *Investopedia*, updated January 13, 2020; https://www.investopedia.com/articles/personal-finance/032415/how-safe-venmo-and-why-it-free.asp.

[8] Venmo is a service of PayPal, Inc.; https://venmo.com/business.

[9] Bushnell, M. and staff. "Venmo for Business: Everything You Should Know." *Business News Daily*, December 26, 2019; https://www.businessnewsdaily.com/11073-venmo-for-business.html.

[10] Weisbaum, Herb. "Use Payment Apps like Venmo, Zelle and CashApp? Here's How to Protect Yourself from Scammers." NBC News *Better*, June 11, 2019; https://www.nbcnews.com/better/lifestyle/use-payment-apps-venmo-zelle-cashapp-here-s-how-protect-ncna1015851.

Name______________________________________ **Period**________

Federal Reserve Bank of St. Louis *Page One Economics*®:

"Peer-to-Peer (P2P) Payment Services"

After reading the article, answer each of the following questions:

1. Peer-to-peer payment services provide the capability to make digital payments through
   a. writing a check to the person you owe money to.
   b. taking out cash at an ATM to pay someone.
   c. using a smartphone app that allows users to transfer money to others.
   d. purchasing a money order and sending it.

2. Bank-centric payment apps are different from third-party apps because
   a. third-party apps are offered through banking apps, and bank-centric apps are not.
   b. bank-centric apps are added features within bank apps.
   c. bank-centric apps only allow transfers within the same bank.
   d. third-party apps are less reliable then bank-centric apps.

3. Monica needs to pay the rent to her landlord, Camilo. Which of the following methods of payment would have the lowest transaction costs for Monica?
   a. Using a P2P payment app to transfer the money in real time to Camilo
   b. Driving to the ATM, taking out the cash, and meeting Camilo to pay him
   c. Writing a check, filling an envelope, and taking it to the mailbox to send to Camilo
   d. Purchasing a money order at her bank and then mailing it to Camilo

4. Pixel used her bank's P2P payment app to pay Lumen back from her checking account. Once Pixel transferred the money, Lumen had instant access to the funds. This scenario best describes
   a. high transaction costs.
   b. a real-time payment.
   c. a debit card transaction.
   d. a credit card payment.

5. Digital wallets within P2P apps are known as
   a. ATMs.
   b. bank-centric.
   c. debit cards.
   d. stored value accounts.

6. Most P2P apps require the person sending the money to provide the bank account number of the person to whom they are sending money.
   a. True
   b. False

7. If businesses want to accept payment from a P2P app, they may pay a fee of up to _________ percent and ______ per transaction to the company that runs the P2P app.
   a. 3.5; $0.40
   b. 2.8; $0.30
   c. 4.5; $0.25
   d. 2.9; $0.30

8. Which generation is using P2P payment apps more than any other generation?
   a. Millennials
   b. Generation Z
   c. Generation Y
   d. Baby Boomers

9. Which of the following best describes transaction costs?
   a. The costs associated with selling a service such as cutting someone's hair
   b. The costs associated with buying and selling a good, service, or financial asset
   c. The costs associated with accepting only debit or credit card payments
   d. The costs associated only with writing a check to pay someone

10. When using P2P apps, one of the drawbacks is that
   a. the app keeps track of how much money you have transferred.
   b. the app makes it easy to connect to your personal bank account.
   c. the app provides a way to make real-time payments.
   d. you may mistakenly send money to the wrong person; it may not be refunded.