

### Introduction:

Manole Capital Management exclusively focuses on the emerging FINTECH industry. Over the last few months, the nine 2020 interns of Manole Capital have conducted our 3<sup>rd</sup> annual financial services survey. This group is comprised of students from Lehigh University (4), the University of Tampa (3), Indiana University (1) and the University of Florida (1). Like our prior surveys, this research specifically targets the thoughts and insights of America's younger generations and how they view various categories of the financial services industry -banking, brokerage, digital currencies and the payment sector.

### Generations:



Baby Boomers are often characterized as optimistic, idealistic, self-driven and have shown a tendency to be loyal to one company (average tenure is 15 years). After years of climbing the corporate ladder, many are now interested in retirement and sharing their legacy. The Gen-X generation tends to be somewhat skeptical, pessimistic, independent and focused on having a solid work / life balance. This group is often

described as resourceful, as they attempt to build a portable career. The two youngest generations are Millennials and Gen-Z. Early analysis shows that these younger consumers are less concerned about brands, labels or even corporate names. They tend to be quite entrepreneurial, ethnically diverse, socially tolerant and environmentally aware. These two segments were taught at a young age to collaborate and embrace flexibility (at school, at home and at work). They are idealistic and focused on advancement, with fairness.

### Our Target Audience:

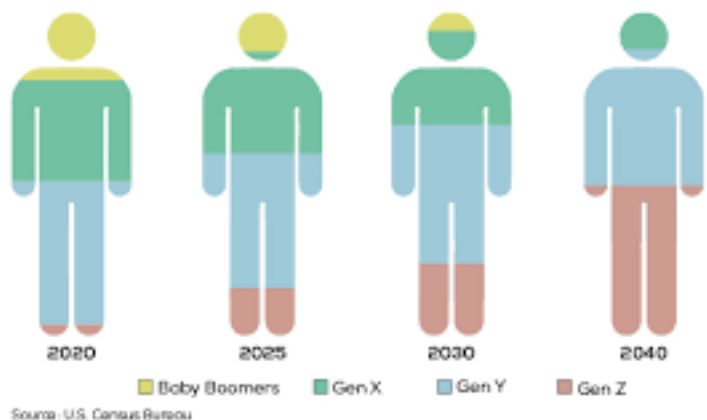
Once again, we targeted Gen-Z (those born after 1995) and Millennials (born between 1980 to 1994) to better understand America's younger generations. In terms of size, Millennials and Gen-Z are both over 20% of the US population. We feel it is important to understand the perspective of these younger individuals, especially since Millennials have surpassed Baby Boomers, as our largest living adult generation (according to the US Census Bureau).

This younger generation, often called the "Internet Generation", doesn't know what life is like without an iPhone or social connectivity. They seek truth, value individual expression and seem to avoid labels. While most of Gen-Z is still in school, a Fast Company survey estimates that this group will account for 40% of all consumers by the end of this year. How will businesses engage, target and attract this group? The three most influential events of their lives are the September 11<sup>th</sup> terrorist attacks, the Financial Crisis and now this COVID-19 global pandemic. We are attempting to understand how this audience will bank, conduct its payments and invest going forward.

We inquired about four distinct financial services categories and received answers to our series of questions from **247** respondents. Nearly **60%** of our responses were female and **40%** were male. Those that answered our questions come from **28** different US states and attend **33** different colleges / universities. Our target audience was Gen-Z and we successfully hit that mark, as **95%** were between the ages of 18 to 22 years old.

### Our Research:

#### Workforce Percentages



As this chart shows, over the next five to 20 years, the percentage of the US workforce will dramatically shift towards Gen-Z. The questions we asked, as well as the information we received, is summarized below. Where possible, we have attempted to provide our conclusions, takeaways and opinions. While some might be considered controversial, it is simply intended to serve as possible Gen-Z and Millennial perspectives. In addition, since this is our 3<sup>rd</sup> annual survey, we feel it is interesting to note how certain answers have changed over the last couple of years. Lastly, we have attempted to sprinkle in a few questions pertaining to COVID-19,

as this virus was beginning to spread globally, just as our survey had begun.

On Instagram, “influencers” can make millions of dollars for their social influence and popularity. Long before this term became popular, the world has attempted to understand and interpret the thoughts of our younger generations. Young people play a critical role in society, as they create and help shape our future. Older generations may believe these differences are unconventional and progressive, but we believe that understanding different perspectives is critical in adapting to change. We hope you find our research insightful into America’s younger generations. We have identified a series of quotes, which has helped to shape our research. We hope you embrace this adaptability and flexibility, as you read our note.

**Albert Einstein** *“The measure of intelligence is the ability to change.”*

**George Bernard Shaw** *“Those who cannot change their minds cannot change anything.”*

**Edwards Deming** *“It is not necessary to change. Survival is not mandatory.”*

**Richard Branson** *“Every success story is a tale of constant adaption, revision and change.”*

**Martha Stewart** *“The more you adapt, the more interesting you are.”*

### Introduction to Payments:

The Gen-Z population is at the forefront of digital usage This, along with increasing smartphone capabilities, has created a new and exciting opportunity to integrate finance and payments. Our goal is to discuss new payment trends, as well as understand how the Gen-Z generation is embracing these methods.

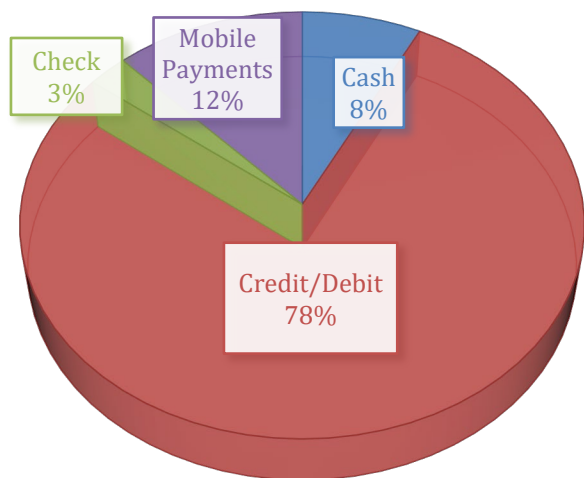
This is the 3<sup>rd</sup> Gen-Z survey on payments that Manole Capital’s interns have conducted. In this note, we discuss changes in certain payment methods, attitudes toward mobile payment capabilities and potential timelines for the possible extinction of traditional payment methods. We will weave into our analysis how trends have changed from year to year. New this year, because of the global pandemic, we were also able to ask our

audience about how payment trends might change due to COVID-19. Our research will hopefully provide insight to the future of payment trends and better understand changes might evolve.

**Question #1: Payment Preferences**

To start off our payment discussion, we asked the survey respondents to list their preferred method of payment. We inquired about cash, credit/debit cards, paper check and mobile payments.

**PAYMENT PREFERENCE**



As you can see, the most popular choice is credit/debit cards at 78%. The dominant choice remains card-based payments, but it has changed from last year. In 2019, credit and debit cards were 89%.

What payment preference is gaining share for the Gen-Z generation? A year ago, cash was the 2<sup>nd</sup> favorite option, but now mobile payments has overtaken paper currency. Mobile payments has climbed from 3% last year to 12% in 2020.

**Our Research & Conclusions:**

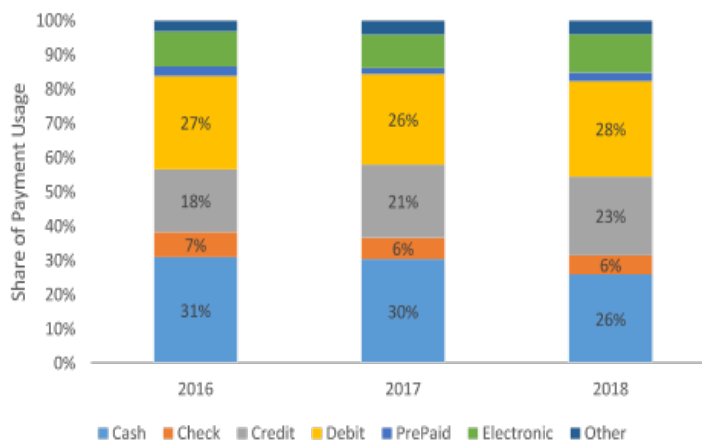
As one would probably expect, checks and cash continue to decline, while credit, debit and mobile payments are growing in popularity. For our 2021

survey, we might begin to break apart credit versus debit, so attempt to identify a preference in card transactions. While credit and debit cards are still the preferred and dominant payment method for Gen-Z, but it is starting to subtly shift.

In late 2019, the Federal Reserve Bank of Atlanta released results on its annual consumer payment choice survey. It found that debit cards were the most preferred payment method in the US, representing 28% of total transactions, followed by cash at 26% and credit cards at 23%. These three payment methods collectively accounted for over 77% of total transactions. Interestingly, "electronic payments", which includes online bill payment and bank account payments only accounted for 6% of total consumer purchases.

As this chart shows, cash usage has declined from 31% in 2016 down to 26% in 2018. It is just a slow and steady decline for cash usage, to the benefit of the cards.

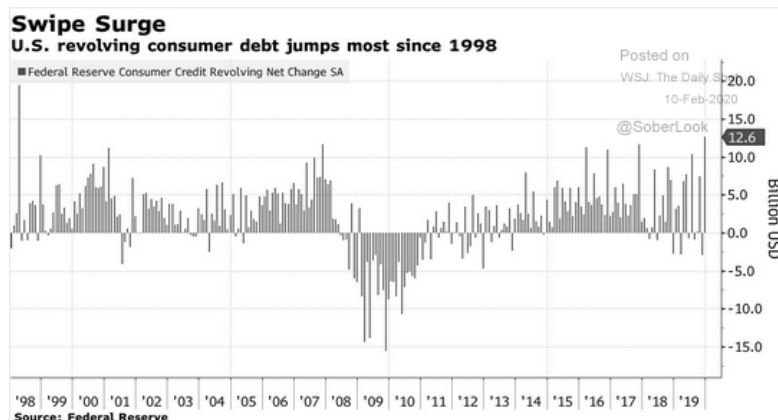
Share of Payment Instrument Usage by Year



Source: FRBSF, Compass Point. Note: The 2019 Diary of Consumer Payment Choice (Diary) highlights findings from the fifth Diary study conducted by the Federal Reserve. A demographically-representative sample of 2,873 individuals participated in the study and reported all of their payments and transactions over three consecutive days, staggered throughout October 2018.

### Cards:

TransUnion has reported that a record 178.6 million consumers in the US have access to and use some sort of debit or credit card. This same TransUnion study revealed that roughly 50% of US Gen-Z generation have credit cards. We believe that Gen-Z members see plastic as a more appealing way to pay than cash and we expect this trend to continue for the foreseeable future. Why?



Well, as this Federal Reserve chart shows, the US consumer loves revolving credit. While Americans across the country have a tendency to swipe credit cards freely, little do they know this has led to over \$1 trillion of revolving credit debt.

As of March 2020, the Fed reported that US household debt had reached a record high of \$14.3 trillion. This record setting debt level has primarily been fueled by skyrocketing student loans and mortgage loans. In Chase's most recent earnings release, its Paymentech payment

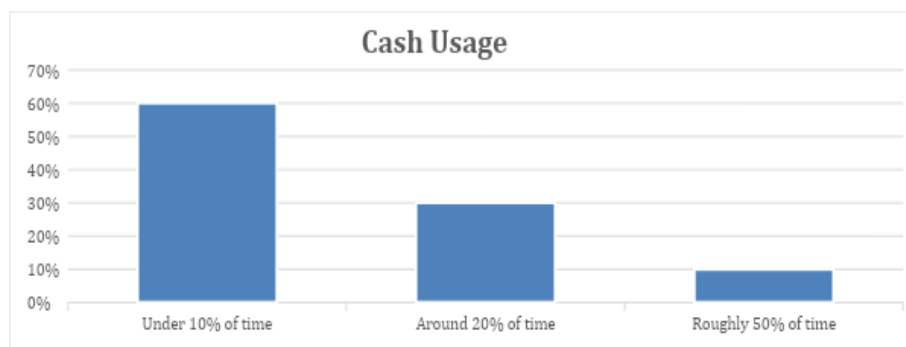
division still experienced year-over-year credit card transaction growth of 4%. As debt continues to balloon, we believe Gen-Z will begin to favor debit over credit, to ensure that personal debt levels stay "in control".

Oliver Jenkyn, a Visa executive, said at the Baird 2020 conference that many consumers are using debit cards over credit cards during this global pandemic. He estimated a \$100 billion shift, from expensive high-end credit cards to debit cards. We would expect more US consumers, especially those of us that are in the Gen-Z cohort, to shift payments towards low or no fee cash back cards, rather than high-end high annual fee travel cards. According to Visa data released in May of 2020, US credit card volumes fell by (21%), while debit card usage grew +12%. It is safe to assume that the US consumers are trying to be more conservative and limit their spending. With an uncertain economic and employment environment, more consumers are limiting their debt and lines of credit.

### **Question #2: Cash Usage**

Our research continues to show that cash continues to get phased-out for Gen-Z purchase transactions. We wanted to understand how frequently cash is even used. We asked our survey how often they use cash for making purchase transactions. We then asked our survey, how often they utilized cards for making these transactions. We broke this analysis into three components. Usage less than 10% of the time, usage around 20% of the time and those roughly half of the time.

Our results for cash were eye popping. Gen-Z clearly does not like to use cash. 60% of Gen-Z respondents say that they use cash for 10% or less of their transactions. Another 30% of Gen-Z claims to use cash for 1/5<sup>th</sup> of their transactions. Only 10% of our respondents utilize cash for half of their purchase transactions.



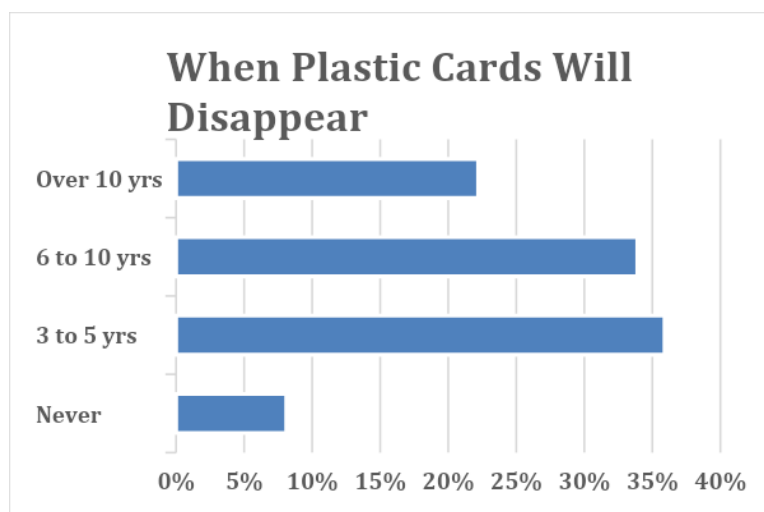
**Our Research & Conclusions:**

If we look at the United Kingdom, we can see a shift towards debit and away from cash. In 2017, debit card transactions finally overtook cash payments. Over the last few years, according to the Financial Times, the UK banking sector has essentially closed or shutdown roughly 500 ATMs per month. While cash still represents about 30% of all UK transactions, estimates from UK Finance believe cash payments will fall below 10% over the next 9 or 10 years.

How are transactions shifting in the US? The US market is experiencing similar trends, but cash remains a dominant choice for lower purchase transactions (under \$25). In 2017, US Bank reported that 75% of Americans carry less than \$50 cash on them on average. While cash is decreasing, we do not envision cash entirely being replaced by cards or mobile based payments. Cash will likely be in existence for years, but it is clearly declining in popularity. According to a Federal Reserve 2019 consumer payment choice study, 80% of cash payments were for transactions \$25 or less. With over half of US purchase transactions under \$25, cash will likely continue to be utilized.

**Question #3: Plastic Cards**

So credit and debit cards clearly remain a favorite of Gen-Z, but we wanted to begin to understand when plastic cards will get phased out. We asked our survey when they believed plastic cards, with 1950’s magnetic stripes on the back, would become non-existent.



While 8% said plastic cards would never become non-existent, over 90% believe it will happen over the next decade.

36% believe it will happen in the next 3 to 5 years, will another 34% say it will take 6 to 10 years. 22% think it will take another decade for plastic cards to be phased out.

This question can be confusing and viewed in several ways, so we might alter our wording in the future. When will magnetic stripes get removed from the back of plastic cards? When will plastic

cards get phased out for purchase transactions? This will help us better understand when mobile based payments can become more prevalent.

**Our Research & Conclusions:**

Mag stripes were invented in the 1950’s and they are slowly begin removed from plastic cards. This mag stripe technology is able to be replicated, as counterfeit cards can be easily created. The industry has responded by implementing EMV technology or chip in card technology. EMV was launched in 1993, but did not get widely distributed in the US until 2015. Also, plastic cards will slowly lose market share to lines of credit or debit capabilities integrated into mobile wallets on our smartphones. Plastic will slowly disappear, as more consumers get comfortable with mobile based payments. Lastly, contactless payments (inside of plastic cards) appear to be a middle ground, as they allow for “tap and pay” capabilities. Maybe contactless payments are the bridge to move US consumers from plastic cards to mobile based payments?

If you want to know if your plastic credit or debit cards have contactless capabilities, simply look for the horizontal WiFi symbol on the front or back of your card. It looks like this and denotes that the plastic card is enabled for contactless or “tap and pay” at the POS (point-of-sale). However, not all merchants have enabled their POS devices to accept contactless payments. That’s a story for another day...

This allows for a simpler and quicker transaction, instead of swiping or inserting your plastic card into the POS reader. Contactless POS readers are beginning to see widespread adoption, especially for transit services. In 2019, the NYC 4-5-6 subway lines installed “Tap to Ride” technology at their turnstiles. The OMNY system permits riders to use contactless cards or their mobile phones for access, as opposed to just Metro Cards. The roll-out was so successful that the MTA is installing these at the turnstile for all 472 subway stations, as well as on their over 4,000 buses.

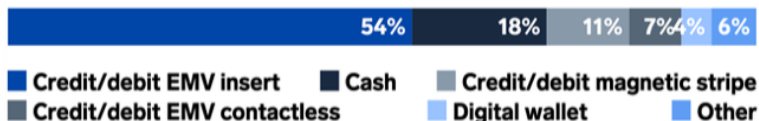
Over the next decade, we believe this new card features will become quite popular. In addition, we believe contactless will lead to further use of mobile based payments, as putting one’s phone next to the reader is much simpler than pulling out one’s plastic card from your leather wallet, right?

**COVID-19:**

A pre-COVID-19 *Business Insider* surveyed 1,350 US consumers their preferred payment method. As this cart shows, only 18% of US consumers preferred cash as their preferred payment method.

With the chance that paper currency could carry various viruses and bacteria, we believe that a cash preference will continue to decline. A study by the WHO in 2017 found that there were hundreds of different types of bacteria living on paper currency in NYC.

**US Consumers' Preferred Payment Method, Pre-Coronavirus Pandemic**



*Note: These consumers were surveyed before the coronavirus pandemic, and the results therefore do not reflect any changes in preference caused by the virus.*

*Source: FreedomPay and Ingenico, "Emerging Trends At The Point Of Sale," 2020*

*Methodology: FreedomPay and Ingenico worked with Hanover Research to survey 1,350 US consumers.*

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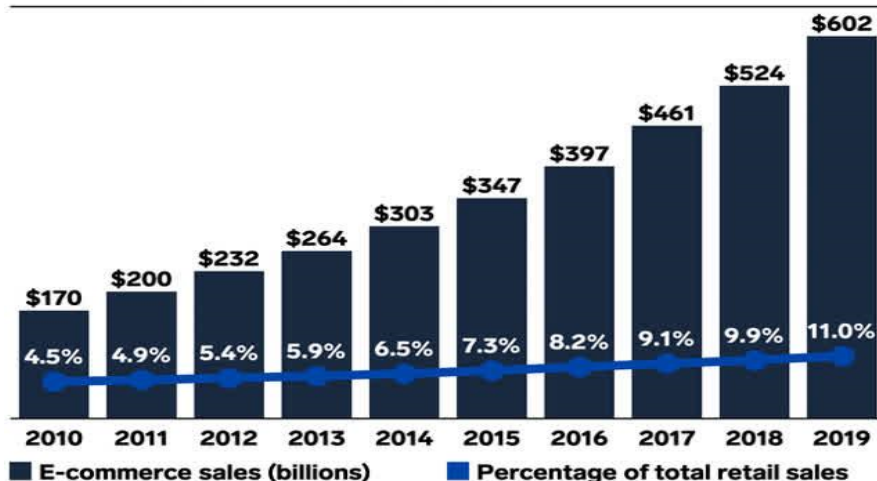
The COVID-19 pandemic is something that is affecting the entire world across every segment of our society. It will take decades to fully realize the effect it will have on our society and our lives. We believe that COVID-19 will ultimately spur further use of mobile based payments. According to Factus, from March to April of 2020, transaction volume for non-cash payment methods dropped between 25% to 30%. By limiting contact with potentially dangerous surfaces, contactless and mobile based payments is probably the safest and most secure option for transacting.

It is widely known that grocery store sales have drastically increased during this pandemic. Also, grocery delivery options, like Instacart and DoorDash, have seen an explosion in adoption and app downloads. The discouragement of cash usage, by numerous Chick-Fil-A's and Whole Foods locations, might spur mobile payments in the future. If more of our society is uncomfortable using cash, due to COVID-19 concerns, it should be a catalyst for more electronic forms of payment.

### **eCommerce:**

In today's COVID-19 and shelter-at-home environment, online shopping has exploded higher in popularity. Obviously, cash cannot be used in eCommerce, so debit and credit card usage is dramatically increasing. Over the last two decades, it is obvious that eCommerce has taken material market share from physical locations.

**Estimated US E-Commerce Sales**



Source: US Census Bureau, 2020

Methodology: These figures are based on the US Census Bureau's 4th Quarter 2019 Retail E-Commerce Sales Report released on February 19, 2020.

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**BUSINESS  
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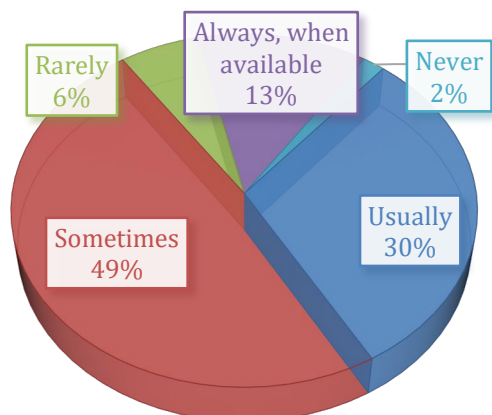
Back in 2000, eCommerce represented less than 1% of total US retail sales. Now, as this chart shows, eCommerce has eclipsed 11% and it is steadily climbing higher.

While eCommerce continues to take market share from physical, brick and mortar retailers, COVID-19 has only increased this shift. According to a 2019 study by *DigitalCommerce360*, eCommerce accounted for 16% of all retail shopping. It is now estimated to have eclipsed 20% and we believe these market share gains will only continue going forward.

#### Question #4: Mobile Payments

As our earlier questions showed, mobile based payments are increasingly becoming more popular with Gen-Z. We wanted to ask how often our survey were utilizing mobile based payments.

### MOBILE PAYMENT USAGE ?



As this chart clearly shows, 98% of Gen-Z respondents say that they use mobile payments to transact. Combining “sometimes”, “usually” and “always” is over 90%.

Compared to last year, the number of Gen-Z respondents that claim to “never” use mobile payments dropped from 11% to less than 2%.

Adding onto this question, we also wanted to inquire if our Gen-Z respondents felt their parents would be

comfortable using mobile based payments, like Venmo. We found that 57% of our survey felt their parents could or would actually be comfortable making a Venmo transaction. While this acceptance rate is below that of our Gen-Z survey, it gives us some confidence that older generations can embrace change. As this world gets more complex and more digital, both younger and older generations should be able to adapt.

#### Our Research/Conclusions:

We believe the significant decline in those indicating “never” using mobile payments indicates a growing adoption among the Gen-Z generation. As a follow-up to this question, we then asked our Gen-Z survey if they would use mobile payments more, if there were more locations that accepted this form of payment. 75% of Gen-Z respondents said that they would use mobile payments more, if given the option. With the growing population of Gen-Z, here in the US and in the workforce, the growth of mobile based payments should continue to head higher. Since smartphones are always in our hand/pocket, we believe that mobile based payments will ultimately become the most widely used option for our daily purchase transactions.



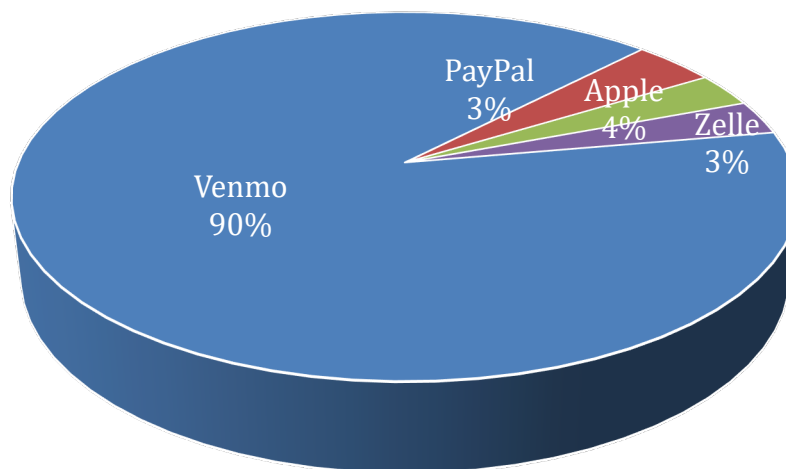
### Question #5: Mobile Payment Brands

Now that we have discovered that mobile based payments are becoming widely embraced, we then wanted to understand which brands are leading the way. We asked our survey participants “Which Mobile Payment Apps Do You Use?”. There was one resounding winner from our research.

The clear leader, with 90% market share, said that Venmo was their favorite mobile payment app. Apple Pay /Cash came in 2<sup>nd</sup> place, with 4% of respondents using that mobile payment app. Following Venmo and Apple were PayPal at 3% and Zelle at 3%.

Venmo’s lead on the rest of the mobile based payment apps has increased since last year. In 2019, Venmo was the preferred payment method for 75% of our Gen-Z respondents. The second and third most preferred mobile payment applications in 2019 were Zelle and PayPal each at 8% with Apple Cash coming in 4<sup>th</sup>, at only 4%. It appears each of these three payment apps have lost user preference to Venmo over the last year.

### Which Mobile Pmt Brand Dominates?



In addition to understanding which brand was dominant, we wanted to know if Gen-Z knew who owned Venmo. We asked our respondents if they were aware that Venmo is owned by PayPal and only 56% knew that fact. Frankly, whether or not Gen-Z knows if PayPal owns Venmo is somewhat irrelevant. The clear takeaway is that PayPal (through its Venmo ownership) dominates the mobile based payment landscape.

### Our Research/Conclusions:

We believe that Venmo is extremely popular among the Gen-Z generation due to two key factors. First of all, Venmo is free. Who doesn’t love free, right? Second, Venmo is really simple to use. The ability to quickly transfer funds via one’s cell phone number is certainly driving adoption. Venmo can transfer funds up to \$3,000 to and from the bank for free, with a little delay time that can be eliminated with a small fee thus making the transfer instantaneous.

### Zelle:

Zelle is the traditional banking channels response to mobile based payments. It is owned by Bank of America, BB&T, Capital One, Navy Federal Credit Union, JP Morgan Chase, PNC, Ally Financial, US Bank and Wells Fargo and was launched in 2017. Like most new technologies and innovations, the traditional bank sector was slow to adapt and change. Once it began to see huge growth in Venmo and PayPal, traditional banks decided to form a consortium to fight back.

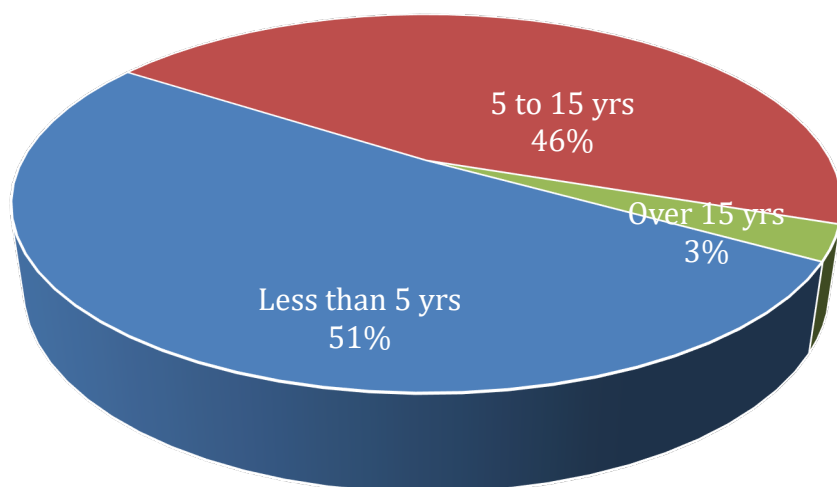
We know that mobile banking is a rapidly increasing in usage, as it is the most convenient way to pay one's bills. Statista estimates that there will be 1.31 billion worldwide mobile banking users by 2023. This is nearly 40% higher than the 950 million users in 2019. Banks are hoping that they can attract users to mobile banking and then cross-sell them on the adoption of their Zelle payment app.

It is our opinion that Gen-Z will prefer Venmo, Apple Cash and PayPal versus the traditional banking solution of Zelle. Why do we believe Venmo is the ultimate winner? Once a product gets known as a verb, it usually is the defacto winner. "Can I Venmo you" is a widely known phrase, especially in the Gen-Z world.

#### Question #6: Merchant Acceptance

Lastly, we wanted to understand how fast brick-and-mortar retail stores might begin to readily accept mobile based payments. We asked our participants when they thought merchants would begin to widely accept digital forms of payment.

### When Will Merchants Accept Mobile?



Over half of our Gen-Z survey believe that merchants will begin to widely accept mobile based payments in the next 5 years. The other half believes it will occur over the next 5 to 15 years, while only a modest 3% believe it will take over 15 years. Quite simply, 97% of our survey found that nearly all retailers will accept mobile based payments at their POS in the next 15 years.

Just a year ago, we asked the same question to our Gen-Z audience. Last year, 62% felt this change was coming in less than 5 years, so there appears to be somewhat of a realization that physical stores are slow to embrace change and adapt.

#### Our Research/Conclusions:

We believe that the smartphone will ultimately replace one's leather wallet. Gen-Z, as well as most generations, will appreciate not having to carry around that bulky wallet in the future. We have found that the success of certain mobile payment app's comes down to convenience and ease of use. For example, Starbucks did a study in October of 2019 and found that 32% of their US transactions occur on their mobile app. It also found that 26% of app users routinely use call ahead order. Dunkin' Donuts has also experienced widespread adoption and use.

This brings up another interesting point, one that is often called the "chicken and egg" dilemma in economic class. Will more consumers download a payment app onto their phone if more retailers permit POS

transactions? Will more retailers bother to complicate the POS or spend money to promote mobile apps if consumers aren't clamoring for them? We think most retailers will wait, as opposed to innovate. Since customers have cash and/or cards for payments, there simply is not an urgency to rush mobile payments. It is only those forward-thinking retailers, looking to drive traffic and sales that are experimenting with mobile apps and loyalty programs. As we become a much more digitized society, this transition should occur and ultimately streamline the payment system.

Lastly, we feel that only certain retailers will be able to convince us to download their mobile app onto our smartphone. The "real estate" on our phone is valuable and merchants should almost "compensate" us mobile payment usage. Starbucks provides a great loyalty program and other merchants should follow suit, in our opinion. Most retailers are developing their own app, to drive traffic and increase customer loyalty. Also, most retailers do not accept Venmo, PayPal, Zelle or even Apple's Cash app at their POS. Merchants have fought hard, but Visa and Mastercard are clearly the dominant card based payment networks. Now, merchants are struggling to increase their own mobile app, at the expense of newer brands like Venmo.

#### Conclusion:

The payment industry is rapidly evolving and undergoing significant shifts. Cash is clearly losing market share, to both cards and mobile based payments. During this global pandemic, mobile based payments will likely be a winner and long-term beneficiary.

With our payment survey results, we hope that you can begin to appreciate the trends Gen-Z is embracing. It reminds us of the difference between hearing and listening. Hearing happens when one is able to recognize a sound, while listening happens when one puts in the effort to understand what it means.

We believe this research important, as it can help investors understand the trends of younger generations. If investors are looking to comprehend younger generations and the trends they are supporting, they cannot be afraid to newer technology. We hope our survey and its findings helped to expose you to some new ideas, maybe even something you were possibly

Manole Capital Management would like to give a "shout out" and "thank" Emma Woodcock (Florida) and Eli Shaw (Indiana) for their significant contribution to this research note. Great job guys!

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