Agpaytech's Research 17th April, 2023

Can Social Media Platforms Lead Fintech in the Digital Wallet Payment System?



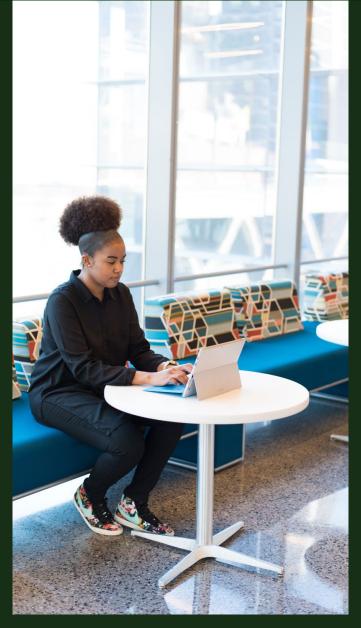
Lessons from the WeChat Ecosystem



Executive Summary

Digital wallet payment has grown rapidlv due to the COVID-19 pandemic, arowth in the e-commerce market and shifts to contactless and instant payments in the consumer finance market. Other factors contributing to the demand for digital wallets are the increased penetration of smartphones and accessibility worldwide. internet In the past decades, there is a fierce competition between banks, telecoms, fintech, and social media platforms in providing digital wallet payment services. Banks and fintech are developing their digital wallet (mobile apps), collaborating with giant card companies to provide seamless and personalized retail payment services.

Meanwhile, Bigtech giants' social media are aiming to go beyond "supper social network" to that of more a "supper wallet" and looking to leverage their massive user networks, brand recognition, and UX expertise to gain a quick competitive edge in the digital wallet payment sector. For instance, Apple Pay and Alipay have overtaken the globe's two other credit card giants, Mastercard and American Express in the digital and mobile payment competition, as data aggregated by Statista shows.



Currently. popular social media networks are developing their digital wallet to provide retail payments to users. The research used Tencent WeChat Ecosystem as a case study to illustrate how social media platforms are providing personalized digital wallets to millions of users, especially in China. We found that WeChat users also prefer to use the digital wallet (WeChat Pay) for all their retail transactions. This means people like to use their social media with a digital wallet all in one application.

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Introduction

Digital Wallet payment services have become an attractive and dynamic feature of the payments landscape globally. In particular, fintech providing payment solutions has been able to grow rapidly during the mobile application era to partner with both banks and non-banks to provide digital payment solutions, whereas traditional banks continue to develop their mobile wallet apps to serve their customers. CB Insights sees digital wallets becoming repositories for everything to do with people's lives, from medical records, health tracking, and biometrics to document and records storage to financial functions like P2P payment, e-commerce, credit and debit cards and investments and household functions like budgeting and insurance.

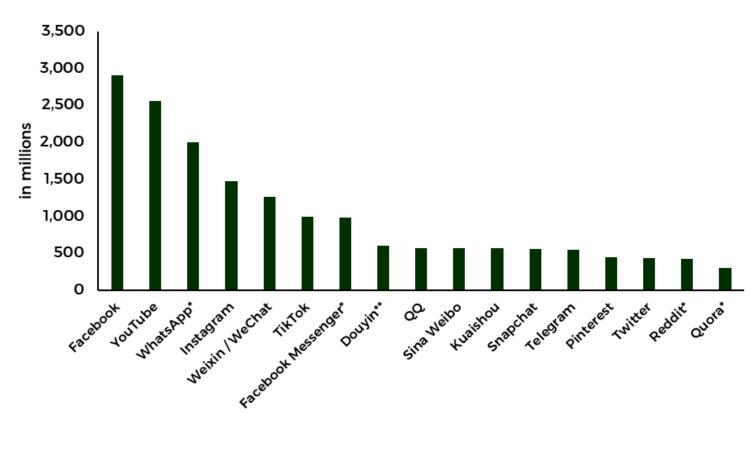
Moreover, digital wallet payment has grown rapidly due to the COVID-19 pandemic, growth in the e-commerce market, and shifts to contactless and instant payments. Other factors contributing to the demand for digital wallets are the increased penetration of smartphones and internet accessibility worldwide. However, the market players providing digital wallet payment solutions are facing new competition from social media platforms. Social media platforms are taking advantage of their large user-base, and consumers' data and partnering with other fintech to lead the digital wallet landscape from banks and fintech. At the time digital wallet payment is catching up with giant card companies, social media platforms are strengthening their capabilities to provide personalized financial services in real-time and at a cheaper fee.

Tech giant social media are aiming to go beyond "supper app" to that of more a "supper wallet" and looking to leverage their vast user networks, brand recognition, and UX expertise to gain a quick competitive edge in the digital wallet payment sector. The combined power of mobile technology, artificial intelligence, and fintech is taking the possibilities of the devices beyond instant messages, sharing of files, and content generation to more personalized financial services where users can also manage their financial and business needs through social media platforms. For instance, Apple Pay and Alipay have overtaken the globe's two other credit card giants, Mastercard and American Express in the digital and mobile payment competition, as data aggregated by Statista shows.

Social Media

Social media penetration in Africa has grown over the years largely due to increasing internet use. It is providing a tremendous opportunity for African content creators and their rapidly growing audiences to tell a different story about the African continent. Facebook is the most visited website in Africa and as of December 2020, there were more than 233 million Facebook subscribers in Africa. Through Facebook and other social media platforms, travel bloggers and photographers, in particular, are playing a major role in documenting multiple perspectives and narratives about the African continent. Besides, market leader Facebook was the first social network to surpass one billion registered accounts and currently sits at more than 2.89 billion monthly active users. The company currently also owns four of the biggest social media platforms, all with over one billion monthly active users each: Facebook (core platform), WhatsApp, Facebook Messenger, and Instagram. In the third quarter of 2021, Facebook reported over 3.58 billion monthly core Family product users (Statista.com).

Figure 1: Monthly active users on social networks worldwide as of January 2022



Source: Statista.com

Table 1: Major social media and their details

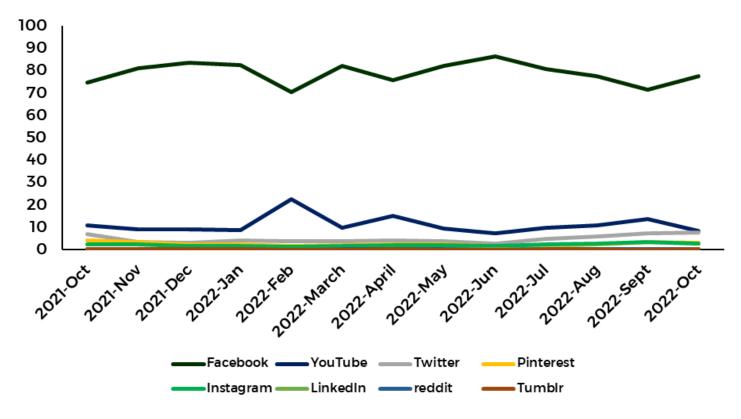
| Description | Facebook | Youtube | Twitter | Pinterest | Instagram | WeChat |
|---------------------|--|---|---|--|--|--|
| | f | \bigcirc | V | P | Ø | |
| Date Launched | 2004 | 2005 | 2006 | 2010 | 2010 | 2011 |
| Owners | Mark Zuckerberg, Eduardo Saverin | Google, Alphabet Inc. | Elon Musk | Paul Sciarra, Evan Sharp, Ben Silbermann | Mark Zuckerberg | Allen Zhang |
| Headquarters | California, USA | California, USA | California, USA | California, USA | California, USA | Guangdong, China |
| Business | Social networking and publishing service | online video sharing and social media platform | microblog- ging and social networking service | image sharing and social media service | photo and video sharing social networking service | Instant message, social media, and mobile payment |
| Users as at 2020 | 2.91 billion | 2.6 billion | Over 300 million | 433 million | 2 billion | 1.3 billion |

Source: Agpaytech.

Social Media Users in Africa

The number of African social media users has risen continuously, amounting to over 384 million as of 2022. Social media penetration is considerably higher in Northern and Southern Africa than in other regions. As of February 2022, some 56% of the population in Northern Africa used social media, while the share was 45% in Southern Africa. Central Africa was significantly behind, with a share of only eight percent. In Ghana, Kenya, Nigeria, and South Africa, social media users favored WhatsApp. On the other hand, Egyptian and Moroccan users preferred Facebook.

While it is clear that social media has brought fame and economic opportunity to many content creators intent on telling their African stories, it is nearly impossible to quantify the total economic and social impact of these new narratives across all social media platforms. Still, there are clear indications that diverse and often optimistic stories of Africa told through new media platforms have tangible benefits on African lives.



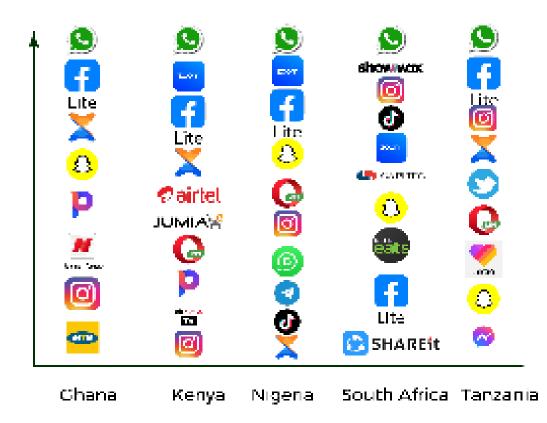
Source: StatCounter

Why there is no Giant Africa-Based Social Media

Table 1 shows that there is no giant tech social media platform owned by Africans despite the number of African social media users on foreign-based social networks. This is perhaps due to the historical and first-mover advantages enjoyed by the Western countries for their early technology development and dominance. Few fintech startups, telecoms and private entities in Africa have developed social network apps that suit the African environment. However, there are several challenges such as low patronage or usage, facing tough competition from foreign-based social media for market share, being unaware of the apps, high literacy rate in Africa, and inadequate regulatory support.

Currently, all the popular social media platforms mostly used in African countries are foreign-based. This makes it difficult to enjoy personalized services and improve local content news and features. Unlike WeChat, mainly developed and used by the Chinese, Tencent WeChat, and Alibaba Alipay have evolved to add many features such as digital wallets, climate sustainability points, local health codes, green tree planting points, locations and maps, nearest facilities, and hospitality centers

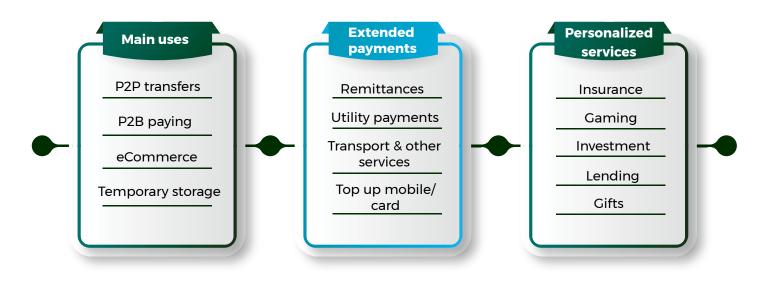
Figure 3: Top social networks in selected African countries



Source: TechCable. Com

The Digital Wallet Payment System

Digital wallets are becoming popular throughout the world as an alternative to credit and debit cards and cash. Many bigtechs and social media are creating their digital wallet. Some digital wallets include Alipay, WeChat, Google Wallet, Apple Pay, Samsung Wallet, and many others. A digital wallet is an online payment tool or software application that serves as an electronic version of a physical wallet. Sometimes, the digital wallet could be referred to us as an electronic wallet, e-wallet, or mobile wallet, which enables users to securely and conveniently store digital versions of payment methods such as credit and debit cards, gift cards, cryptocurrency, boarding passes, event tickets, passwords and coupons to use on the go with their smartphones or smartwatches. The development of e-wallets aims to encourage customers and small business owners to use digital payments for safer, cashless, and more efficient transactions. The area of e-wallet implementation needs to cover large area consumption to make sure e-wallet becomes an acceptable payment method for customers.

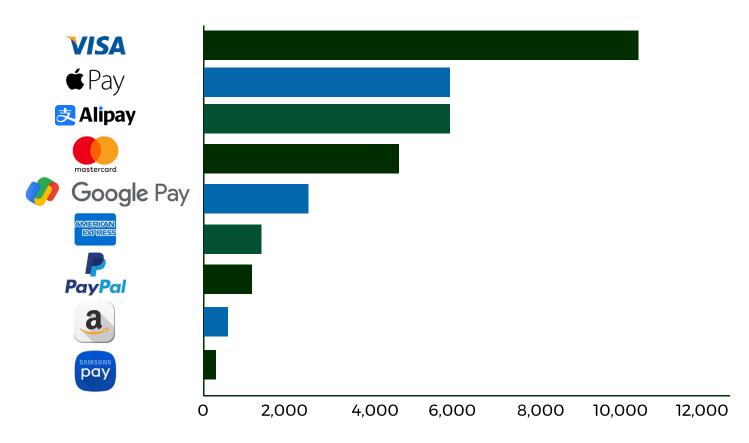


Source: Agpaytech

Digital Wallet Payments Catch up to Credit Card Giants

Visa is the undisputed leader among the world's payment processors with more than \$10 trillion in payments processed per year. But the globe's two other credit card giants, Mastercard and American Express, have already been overtaken by providers from the digital and mobile payment competition, as data aggregated by Statista shows, Apple Pay and Alipay are the second and third-biggest payment providers in the world, according to the data, both surpassing \$6 trillion of payments processed per year. According to Statista analysts, PayPal, Amazon Pay and Samsung Pay are much smaller players in the digital payment market that are only poised to grow in coming years.





Source: Statista.com

Social Media and the Digital Wallet

Currently, social media is the most powerful marketing strategy of its own. Organizations and individual entities ranging from international firms to local businesses all have a presence on several social media platforms. Owners of these platforms are taking advantage to unify consumers' data and profiles to build a digital payment wallet. The viral nature of social media makes it the quickest way to promote content and disseminate information. With over 4.2 billion social media users worldwide in 2021 (Stistata, 2022), users do not want only to share videos, images, instant text messages, content, documents, and others but are also interested in managing their financial transactions. This has made it more important for social media owners to introduce mobile payment features where all payment and nonpayment wallet content can be stored, organized, and accessed on smartphones.

Though the biggest digital wallets today are operated by financial services providers - WeChat, Apple Pay, Venmo - all of those companies operate a

personal identity platform. WeChat's wallet was built on top of a messaging identity, Apple Pay's on top of a mobile OAuth identity and Venmo's ingests Facebook to create a social identity. The last two years have seen an explosion in platforms releasing digital wallets. Shopify with a wallet to unify the consumer e-commerce identity; Facebook with wallets in Messenger and WhatsApp to build on its social profile; TikTok with a wallet to accelerate commerce on its video platform. Anywhere consumers store а persistent identity. there's an opportunity to grow that profile into one that includes KYC, contextual personal information and ultimately, payment authorization (Milanović, 2022).

"Twitter filed paperwork that would allow it to process payments at some point in the near future" - The New York Time

Recently, social media platforms are introducing digital wallet features to enhance the mobility of money or payment transfers on the platform, which is adding a huge source of revenue. While such digital wallets attract a cheaper fee, it entices users to spend more and encourage small

own business to make transactions. For instance, Twitter entering into the payments business would certainly be a step toward developing the platform into the "everything app". While users share content, news, files, texts, etc., they can also send and receive and make payment for goods and services directly on the platform.



Lessons from WeChat: The Everything App

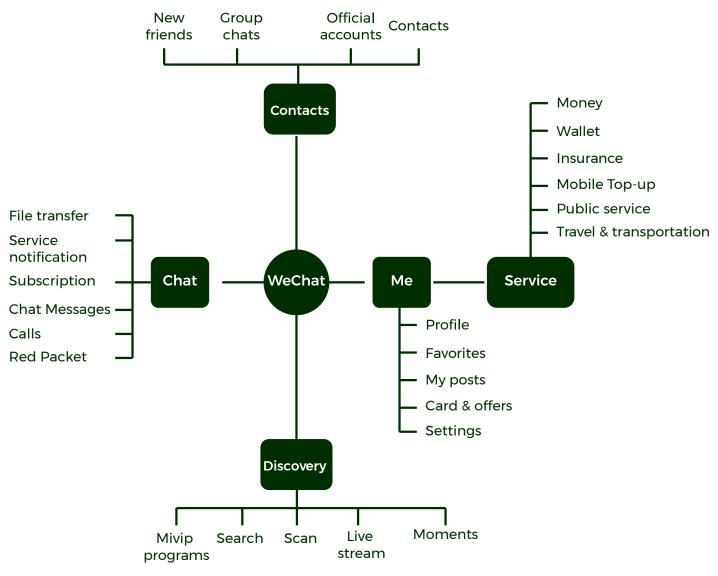
WeChat, a Chinese instant messaging, social media and mobile payment app developed by Tencent is an "everything app". The app connects billions of people with calls, chats, shopping, payments, and more worldwide. The WeChat chats can be translated making it possible and easier to communicate with users who speak different languages. The app was first released in 2011, and it became the world's largest standalone mobile app in 2018, with over 1 billion monthly active users. In this report, we looked at how social medial platforms are providing their payment methods. The study will be delimited to WeChat/Weixin. a Chinese giant social media like WhatsApp with a mobile wallet function that bring millions of people together. In its home market of China, WeChat was marketed as Weixin and was rebranded as WeChat in 2012 for international audiences. In 2018, WeChat and Weixin surpassed one billion users, which was a significant increase from the previous year. Today, WeChat is one of the leading social networks worldwide, ranking fifth in terms of active user numbers. Tencent's social network revenue was \$17.4 billion in 2021, which accounts for 19% of the company's total revenue. In Q1 2022, WeChat has 3.5 million miniprograms on its platform, which transacted 2.7 trillion RMB in 2021, whereas 45 billion messages were sent daily in January 2019 on WeChat.



WeChat Features

The WeChat ecosystem combines instant messaging, digital payment, e-commerce. remote work. file sharing, live stream subscriptions, and many others to provide complete satisfaction and service convenience to users. The app has many security and authentication approaches to protect and maintain consumers' privacy, and security, whiles avoiding the risk of fraud. On the app, four main buttons are showing; Chats, Contacts, Discover, & Me. There is also a shortcut icon that contains features like New Chat, Money, Scan, Add Contacts and Support.

Figure 6: The WeChat ecosystem



Source: Agpaytech

From Social Media to Giant Digital Payment

Founded in 1998, it quickly became China's leading player in online messaging through its blockbuster chat product QQ. Building on that success, the company pivoted into online gaming, a space that heavily relies on online chat. Today, Tencent is one of the world's largest gaming companies. To support that business, it introduced the online payments brand Tenpay in 2005. The social aspect of its business model remained central to Tencent's business, and in 2011, it launched WeChat, a smartphone-based social messaging application that became even more popular than QQ. In 2013, it integrated Tenpay into WeChat, creating WeChat Pay. WeChat Pay is a payments product embedded in WeChat that enables users to send each other money directly through the messaging platform.

Table 2: WeChat version development

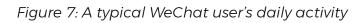
| Year | Version Released | Major Features |
|------|--|--|
| 2010 | WeChat 1.0 | Text message functionality only |
| | WeChat 2.0 WeChat 2.1 | Added voice notes The ability for users to connect to their QQ contacts |
| 2011 | WeChat 2.5 WeChat 3.0 WeChat 3.5 | and import them into their WeChat account. Included "Nearby" features Added shake" and "drift bottle" features Quick Response (QR) Code |
| 2012 | WeChat 4.0 | Added the "Moments" feature |
| 2013 | WeChat 5.0 | This version focused on official/public accounts, B2C offerings and monetization, games and improved QR Code |
| 2014 | WeChat 6.0 | The updates on v6.0 have features like group video calls, WeRun, Mini -programs |
| 2019 | WeChat 7.0 | Improve general features, themes |
| 2022 | WeChat 8.0.24 | General improvement in moments, security updates, live |

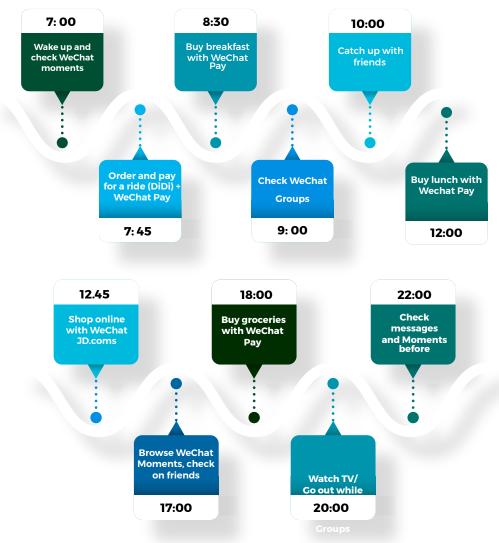
Source: Agpaytech.

A Typical WeChat User

Today, people spend more than 6 hours on average on social media. Social media has become the main forum to greet family, friends, work colleagues, education, news, or other relevant information. Figure 7 illustrates the normal activity and time a person could engage with WeChat.







Source: Tencent

WeChat & WeChat Pay users

The number of Tencent's WeChat active accounts has been increasing steadily. As of the end of September 2022, the Chinese multi-functional social media platform had almost 1.31 billion monthly active users. In 2018, WeChat and Weixin surpassed one billion users, which was a significant increase from the previous year. Today, WeChat is one of the leading social networks worldwide, ranking fifth in terms of active user numbers. It has users from different age groups.



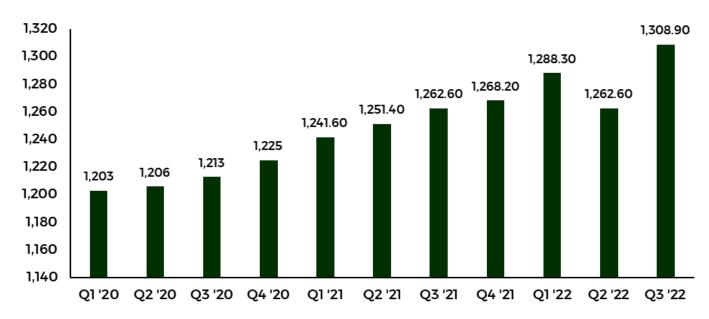


Figure 8:Monthly active WeChat users from 2nd quarter 2011 to 3rd quarter 2022

Source: Statista.com

WeChat has 1.24 billion users, almost all based in China. The app's user growth has slowed in recent years because almost every smartphone user in the country already has an account. WeChat Pay is the second most popular payment platform in China, slightly behind AliPay. It had 900 million active users in 2021. The number of WeChat users is directly proportional to the number of WeChat Pay users. This indicates that WeChat users also prefer to use the digital wallet for transactions

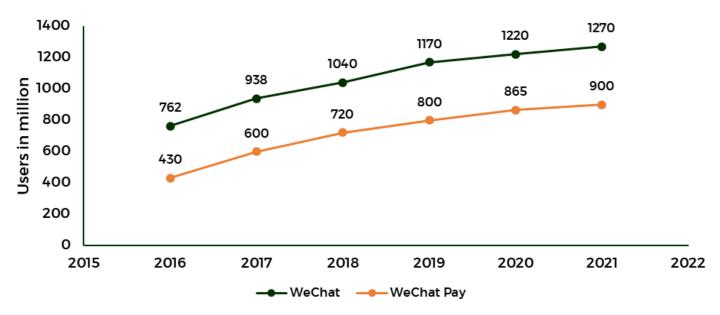


Figure 9: WeChat & WeChat Pay Users

Source: Tencent

It is hard to estimate WeChat revenue on its own, as it generates a lot through its ancillary services, such as WeChat Pay and its mini-programs platform. This statistic covers Tencent's social media revenue, of which WeChat contributes a large amount.

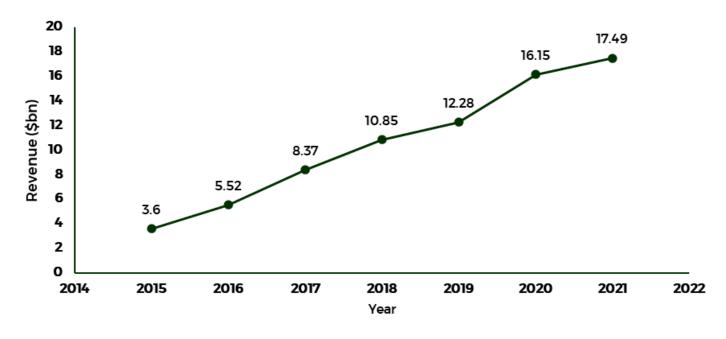


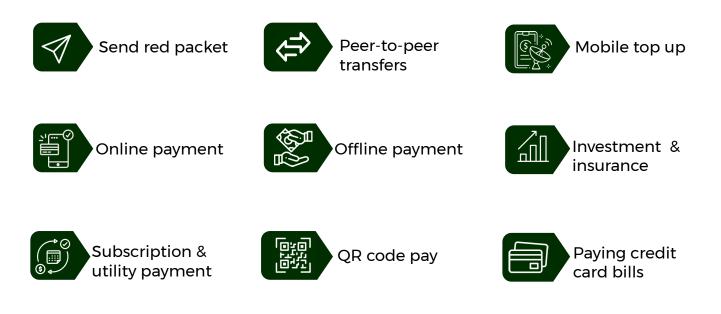
Figure 10: WeChat revenue

Source: BusinessofApps

The Digital Wallet: WeChat Pay

This report will focus on WeChat Pay as an example of a Digital Wallet in the consumer finance market. WeChat Pay is a payment feature that is integrated into the WeChat app. While the fact that this feature is part of the larger WeChat app is unique, the overall digital wallet concept is similar to that of Apple Pay and Google Pay. It allows users to quickly make payments with their smartphones wherever they are and leave their physical wallets at home. WeChat Pay has payment options for many different in-store and online scenarios, and along with Alipay, it's one of the top mobile payment systems in China. WeChat Pay is a digital wallet connected to numerous Chinese super apps. In recent years it has quickly become a vital payment method for businesses wanting to reach Chinese shoppers, both at home and abroad. WeChat has evolved into an ecosystem that allows Chinese shoppers to chat, browse, and make payments, all in one place - making shopping as easy as chatting with your friends. The WeChat payment ecosystem has enhanced user security, upgrading transaction, and customer management functions for SMEs, as well as reducing merchants' transaction friction via tools such as Weixin Pay Score. WeChat Pay now supports e-CNY as an additional funding option as part of the People's Bank of China's (PBOC's) e-CNY pilot phase.

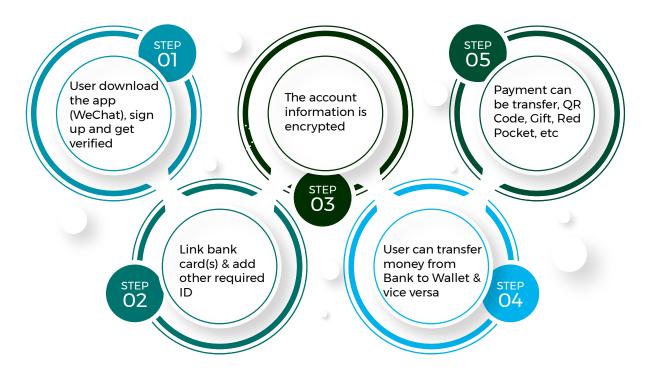
Figure 11: WeChat Pay functions



Source: Agpaytech

| Making Payments with the Digital Wallet

Using the digital wallet is quite easy and convenient, and the system starts with users downloading and launching an e-wallet application or software, and signing up by following the personal registration requirements. Secondly, the user enters their card (credit or debit card) information into the digital wallet app or site to link the bank account(s) to the digital wallet. The users need to reload some amount of digital cash using cash, credit card, or debit card. Then consumers get involved in purchasing activities using online platforms or direct mobile transfers such as instant transfers, gifts, red pocket, and others. The payment process starts with a customer scanning the merchant code of payment. Then, the customer enters the amount of payment or transfer amount. Next, the transaction authorization code is needed to fill in for confirmation of the purchase of transferring money. Then, the transaction is complete with a record saved in the database with the reference identification number for each transaction.



Source: Agpaytech

Social Media Platforms, Banks, and Fintech Compete for Share

The leading contests for providing digital wallet payments are proportional to different regions in the world. In most emerging markets like Africa and least developed countries, the competition to provide digital wallet payment solutions is between banks, with their mobile banking apps and wallets, and third-party mobile wallets owned by telecom companies, e-commerce platforms, and other ecosystem participants. Which side comes out ahead is likely to vary by country and depends to a large extent on market structure. The market structure will largely decide whether social media/bigtechs wallet or banks wallet can gain a competitive edge or lead share in the digital wallet payment solution. Agpaytech identified four key factors that could help banks and nonbank wallets to get a large market share in the consumer finance industry.

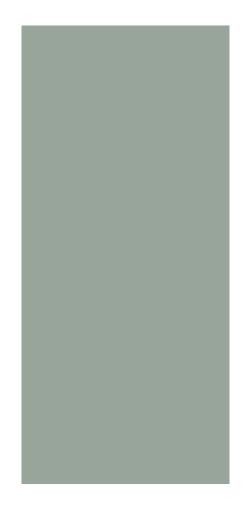


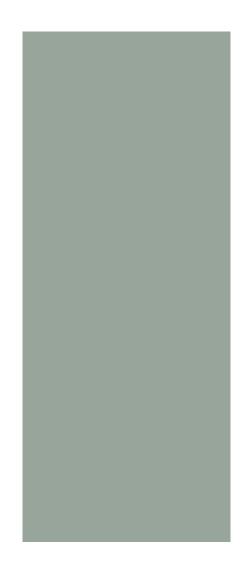
Table 3: Market characteristics for digital wallet share

| Factors | Banks Lead | Non-banks Lead | |
|--|---|---|--|
| Dominated payment institution | Payment is dominated by bank initiative | Payment is dominated by bigtechs (Alipay and WeChat Pay) | |
| Regulation approach | Regulations favour banks (bank- led models, eg; Nigeria) | Regulations favour fintechs, bigtechs and telecoms in the market | |
| Accessibility coverage in the region | Banks have large asset sizes and reliable services | Giant techs have large capital bases and provide wider accessibility (e.g Africa) | |
| Trust and security | Trust in conventional banks | Trust in bigtechs in the market | |

Source: Agpaytech

Markets where bigtechs and nonbanks lead

Nonbank wallets tend to do best in markets with less developed payment infrastructure and where telecom companies and other providers face no regulatory barriers in creating strong value propositions to reach underserved customers. In Kenya and Ghana, for instance, telecom companies' first-mover advantage and innovative efforts to extend financial services to mass markets via mobile wallets have resulted in very high penetration levels. Wallets are the leading e-commerce payment method in the Philippines (accounting for 31 percent of transaction value), Vietnam (25 percent), and Indonesia (39 percent), and they take second place in Thailand after bank transfers. Some wallets have achieved very high penetration levels in these markets (McKeinsy, 2022).



Conclusion

Social media platforms are taking advantage of the large user-based access to consumer data in one comprehensive profile that can be permissioned and accessed by the owners of social media to provide digital retail payment services to users. Millions of people download or sign up on social media every day, and there is an opportunity to grow that profile into one that includes KYC, contextual personal information, and ultimately, payment authorization.

Digital payment services have become an attractive and dynamic feature of the payments landscape in emerging countries. In particular, some new fintech-providing payment solutions have been able to grow rapidly by associating themselves with giant social media, and banks and offering API, mobile agent, or merchant services to consumers.

Agpaytech suggests banks and fintechs should corporate with social media platforms to provide digital financial services that would improve the service experience of social media users like WeChat.



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About Agpaytech

Agpaytech Ltd. is a company pioneering in the Fintech Space with a focused approach to building robust technologies for eCommerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service White-Label Solution, Foreign Exchange, Cross Border Payments, and digital currency technology. We have partnered with multiple banks, non-banking financial institutions, and corporate organizations to create a solid service delivery model for them and their customers to ease their international remittances and payments concerns. Website: www.agpaytech.co.uk

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