

Comparative analysis of UPI and M-wallet system

¹Dr. Virshree P Tungare

*Assistant Professor
Acropolis Institute of Management
and Research DAVV, Indore*

Email : tungarevirshree@gmail.com
Contact : 9826451324

²Dr. Kratika Neema

*Assistant Professor
Acropolis Institute of Management
and Research DAVV, Indore*

Email : kratikaneema06@gmail.com
Contact : 9301170631

Abstract

Telecommunication network and mobile technology works like wonder in social as well as financial life to the man similarly digitization of financial transaction put powerful impact on routine transaction of customers. Now making payment is just a click away, the use and easy availability of smart phones playing important and smart role in it.

Demonetization changed this scenario rapidly online payment system has got tremendous success, Mobile wallet, and paytm are the example of it. Lunching of UPI (Unified Payment Interface) by Indian Government in November 2017 gave a tough competition to existing payment interface and gain popularity because of its easy interface and easy adoption process.

This research paper focusing on the growth of adoption of UPI over the other payment system especially M-Wallet. The research study is based on secondary data. Basically, the required information has been derived from various books, reports, articles from newspapers, magazines and journals, and from the various web-sites which deal directly or indirectly with the topics related to.

Key words: M-Wallet, UPI, Digital Payment System, digital Banking.

Introduction

The extensive growth of telecommunication network, digitization of banking and payment system has open huge amount of customer base to the online payment firms. The growing percentage of e-commerce in Indian economy was the perfect example of it. In emerging markets, the importance of mobile commerce is even higher, as the mobile network is the primary infrastructure for online commerce. The mode of digital payments has got a pace with the growth of e-commerce and followed by demonetization which leads to the emergence of digital wallet companies.

Various smart features like the ease of use, easy availability and increased smartphone penetration have made the way easy for digital wallet and other payment system to get the attention of customers.

Mobile-wallet

A digital wallet is a system that securely stores users' payment information and passwords for numerous payment methods and websites. Mobile payments are a natural evolution of e-payment schemes that will facilitate mobile commerce, and very soon these technologies turned in to the *Mobile-wallet*. *M-wallet* largely eliminate the need to carry a physical wallet, by storing all of a consumer's payment information securely and compactly, the companies encouraged their customers to use it for offline point of sale (POS) transactions too like at malls, supermarkets, grocery stores, restaurants and gas/petrol stations. Obviously, mobile wallets were playing a unique role in driving the growth of digital payments sector.

After the launching of UPI (Unified Payments Interface), a product of the National Payments Corporation of India (NPCI) in 2016, and the scenario has change, this emerging technology intended to lead the India towards the cashless economy.

UPI

UPI is a new technology infrastructure that existing bank apps can integrate with, in order to facilitate easy funds transfer and other monetary transactions between two people in a secure and convenient manner. A mobile wallet on the other hand, is a digital/ electronic form of physical wallet that you can use to make payments, transfer money, and perform most activities that you can with cash.

UPI is an instant payment interface that facilitates users to transfers cash between bank accounts via smartphone without sharing any bank account details. It will be a unique identifier that your bank uses to transfer money and make payments using the IMPS (Immediate Payments Service). This means that the online payments will become much easier without requiring a digital wallet or credit or debit card and also customers can transfer funds directly from their own accounts to peers and merchants.

Review of Related Literature:

- “E-payment is fetching a daily part of our life. Ramsay and Smith⁸, witnessed consumer’s preferences and ranked the banking channels accordingly. Tushar and rama studied on advantages of e-banking and found that new technology comprise cost savings, increased customer base, innovation, and development of non-core business. However, some worries were raised such as privacy and security issues.
- K. C. Balaji and K. Balaji studied the demonetization And Its Impact On Cashless Transactions" and found that the development of the cashless exchange framework is achieving new statures. Individuals tend to move to cashless exchanges. It is on the right track to state that the cashless framework is a prerequisite as well as a requirement for the general public.

- Rajiv Anand has researched on jandhan yojana and its linking to cash less economy and conclude that “India has over a billion connections with around 240 million smartphone users The Pradhan Mantri Jan Dhan Yojana through 226 million accounts and 183 million cards (as on 27th July 2016) has provided the infrastructure for universal access to banking. The issuing infrastructure is largely in place and the launch of UPI will provide a significant fillip in the proliferation of low-cost acquisition infrastructure by allowing smart phones to substitute costlier point of sale (PoS) devices.”
- Dr.HEM SHWETA RATHORE in her research paper “Adoption of Digital wallet by consumers “have analyzed about the factors that influence consumers in adoption of digital wallet and also analyzed the risk and challenges faced by consumers in usage of digital wallet and concluded that shoppers are adopting digital wallet largely due to convenience and ease to use and in the future years digital wallet will gain more widespread acceptance.
- Another landmark achieved through UPI is the usage of open source technology to build enterprise class architecture of high throughput and high volume. UPI is expected to handle 10-15 thousand transactions per second [TPS] at its peak with daily volume of at least 10 million transactions. So, the backend architecture needs to be really robust, scalable and fast. The key point is that it did not use the expensive, commercially available app servers, message queues etc. The architecture is primarily build on open source software which is rarely used in a system of this scale. Concluded by Chakraborti,
- Research findings of Moutinho and Smith suggested that ease of banking and convenience is preferred by the customer and, hence, banks should find alternative routes to improve service delivery (either human-based or technology based). E-banking provides higher degree of convenience that enables customers to access

internet banking at all times and places. Apart from that, the accessibility of computers is perceived as a measure of relative advantage.

Research Objectives:

This increased use and adoption of UPI use as platform for this research to find out.

- Growth in adoption of UPI Systems over other payment system in past years.
- The trends that has increased the UPI usage over m-wallets.

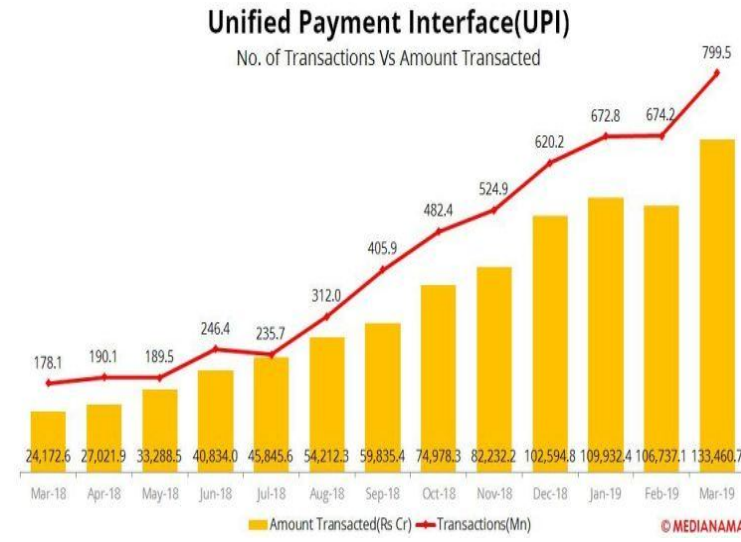
Research methodology

This Research is descriptive type research. The research study is based on secondary data. Basically, the required information has been derived from various books, reports, articles from newspapers, magazines and journals, and from the various web-sites which deal directly or indirectly with the topics related to.

Research Analysis based on objectives:

1. Growth in adoption of UPI Systems over other payment system in past years.

Digital transactions in India increased due to demonetization of currency denomination. During that period the Indian customer moved towards mobile wallets, or e-wallets, and the Unified Payments Interface (UPI) platform. While mobile wallets dominated the market immediately after the cash ban, Paytm and mobilewiki was only market player of that time, after launching the UPI platform in November 2017, the e-wallets hands down in terms of the value of transactions. Also, the volume of UPI transactions has been steadily increasing; though the volume of mobile wallet transactions is still higher, UPI volumes have recorded higher growth month-on-month.

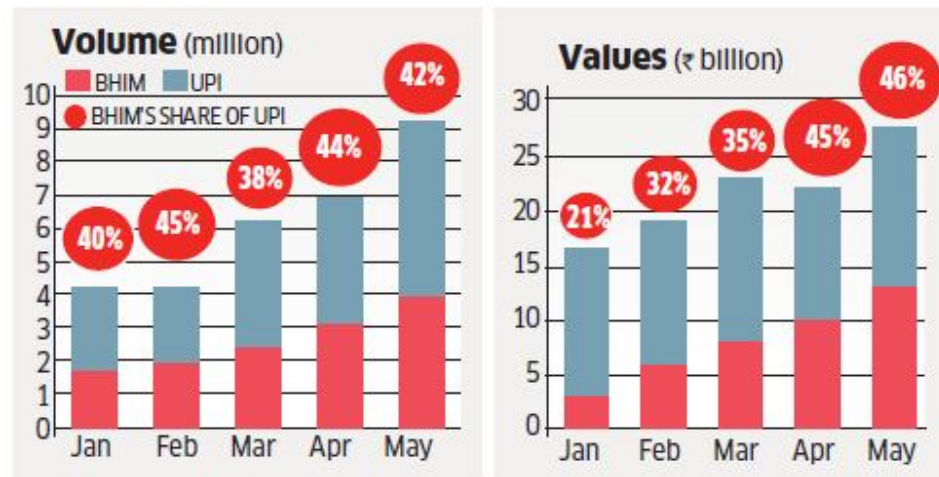


Source : [Medinama](https://www.medianama.com/2019/04/223-upi-transactions)

The transaction of UPI in March 2019 was around 4.5 times higher than March 2018. The amount transacted went up by 25% to Rs 133,460.7 crores over February. The amount transacted in March 2019 was 5.5 times higher than in March 2018. (<https://www.medianama.com/2019/04/223-upi-transactions>) Reason behind the growth of UPI found that “UPI is an instant payment interface that allows users to transfer money via an app without having to share any bank account details.”

According to data released by the National Payments Corporation of India (NPCI), which runs the UPI platform, UPI transactions surged to 9.2 million in May from 6.9 million in April and 92,000 in August. The total value of UPI transactions shot up to Rs 27 billion in May from Rs 7 billion in December, a month after the government demonetized high-value banknotes. NPCI recently introduced customer referral

schemes on BHIM to incentivize users to bring more users on the UPI platform.



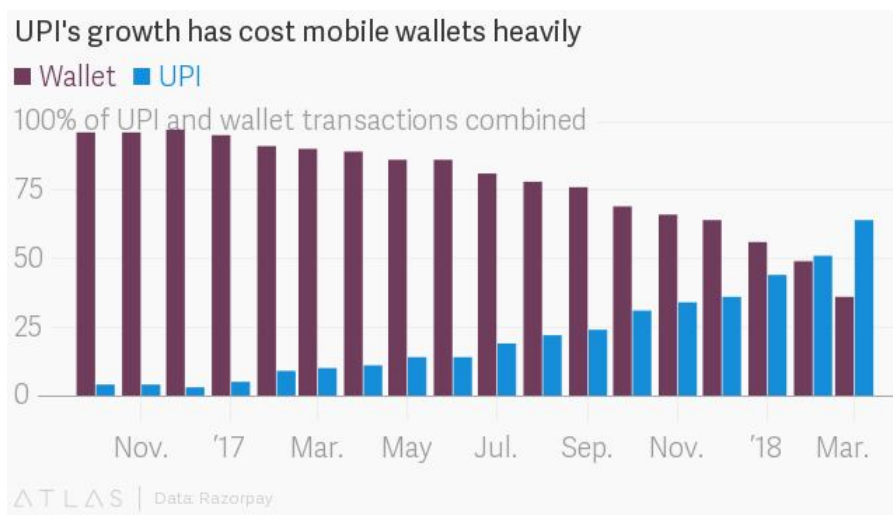
UPI crossed the Rs1 trillion (\$14 billion) milestone for monthly value in December 2018, growing nearly eight times over the previous year. It also achieved a monthly volume of over 600 million, four times the volume of UPI transactions in December 2017, according to data released by National Payments Corporation of India (NPCI).

2. The reasons that has increased the UPI usage over m-wallets.

There are many more reasons that are working for the popularity of UPI systems

- Upasana Taku, co-founder of Mobikwik, said that UPI is definitely simpler in peer-to-peer transactions and hence there is a pick-up in UPI transactions. A wallet transaction involves multiple legs, including transfer of money from bank account to the wallet and then to the beneficiary, which the UPI doesn't require.
- Another obstacle that m-wallets are facing is the requirement of mandatory KYC for all customers. This regulatory requirement kicked in from March this year and official data shows a clear impact on transactions. The value of e-wallet transactions has seen a fall of close to 30% between February and March

- Mr. Mathur M. Harine in his study found that “Customer behavior shows that UPI and wallets, both easily accessible via mobile apps, are considered interchangeable. “Because they’re similar, they are cannibalizing each other,” So, any hit to wallets scores a win for UPI”.
- That’s why the sudden fall in mobile wallet usage arose after KYC (know-your-customer) norms enforced on all financial groups, became the reasons to be the growing popularity of Unified Payments Interface (UPI) which has impacted wallet transactions.”



- Though M-wallet allows you to make payments for various services or transfer funds, without using internet banking, but the wallet itself needs to be loaded first through internet banking, while The UPI system, which is based on the IMPS (Immediate Payment Service) platform, allows a user to transfer money from a bank account to another bank account instantly.
 - One of the major constraints in using an e-wallet is that even after you complete your KYC, it is currently not possible to transfer money from one wallet to another.
- What may trigger the use of UPI over M- Wallets

Further research question

Could UPI platform Boost Mobile Wallets?

The emergence of UPI infrastructure provides mobile wallet companies a brilliant opportunity to add more users. The Reserve Bank of India (RBI) Payment System Vision Document (2012-15) says that UPI envisages a payments architecture that is directly linked to achieving the goals of universal electronic payments, a less-cash society, and financial inclusion, using the latest technology trends.

Mobile wallets that offer speed, security and ease of use could retain a loyal customer base, as both services hone in on the real endangered species – cash. However, if mobile wallets are to survive, they will need to evolve and mature to stay relevant in tomorrow's economy.

While some experts believe UPI makes mobile wallet tech redundant, others view UPI as a way for mobile app companies to add more users. UPI could provide the infrastructure for end-user mobile wallet apps to implement UPI features. By working together, this payment architecture could move countries toward universal electronic payments and a cashless, more financially inclusive society.

Mobile wallets also have unique benefits UPI can't offer, such as cash pick-up, micro-credit facilities, hyper-local transactions, stand-alone app utility and a loyal, established customer base. And unlike mobile wallets, adopting UPI on a global scale would require training merchants, staff and retailers, and upgrading existing POS technology.

Conclusion

Performance based: In my view, it is very early stage to say that mobile wallet companies in India going to lose their customers than any of the existing bank supported apps combined. The potential that UPI holds is tremendous and promising,

nevertheless. When carried out in full scale, it will popularize and overtake the concept of mobile payments and also facilitate digital banking. There has been a lot of speculation that UPI is the beginning of the end for mobile wallets as currently, one has to make transfers between bank account to mobile wallet in order to access its services. UPI will do away with these steps since it is based on the already existing Immediate Payment Service (IMPS) system which works 24x7.

Technology Based: In the case of UPI, it is uncertain how the front-end would work for users with few rising questions:

1. Can it be tying up it with existing bank interfaces, apps, and properties or creating completely new environment?
2. Will it be effective to work on same interface to deliver a great user-experience, and gaining fast consumer adoption of UPI?

Currently existing financial and governmental digital schemes are contentiously working on easy interface and mobile responsive website. Even most of the existing m-wallet companies have started working on UPI platform.

But most important is to giving a hassle free interface to the customer; most users will discontinue transacting on a platform if their first few experiences turn out to be less than satisfying, leave alone problematic.

Secondly, mobile wallets companies are also trying for winning consumer and retailer trust, and delivering a seamless user-experience is key to driving growth for mobile wallets such as MobiKwik. It wasn't easy for us and we see that it is still extremely difficult for banks.

Without a doubt, UPI is a milestone development in technology adoption by banks with the goal of driving India on the way to become a smart, cashless and connected economy. Mobile wallet companies have already partnered with several banks and UPI

will in fact act as an additional lever for wallet companies to integrate further with the banking system and also add more merchants.

Reference

1. Ramsay J. and Smith M., Managing customer channel usage in the Australian banking sector, *Managerial Auditing Journal*, **14(7)**,29-338 (1999)
2. Anand,R. (2016, September 12).Happy to Pay. The Telegraph, Calcutta.
3. NCPI initiates unified payment interface. (2016, February18). The Hindu-Businessline. Retrieved from <http://www.thehindubusinessline.com/money-and-banking/npci-initiates-unified-payments-interface/article6909162.ece>
4. Chakraborti, P (2016, August 20).UPI-Convergence of vision, ideas, and trends.
5. Unified Payments interface-UPI (2016). Retrieved from www.cashlessindia.gov.in/upi.html.
6. Moutinho L. and Smith A., Modelling bank customer satisfaction through mediation of attitudes towards human and automated banking, *International Journal of Bank Marketing*, **18(3)**, 124- 134 (2000).
7. Dr.HEM SHWETA RATHORE (2016) “Adoption of digital wallet by consumers” BVIMSR’s journal of management research. Volume 8 issue 1, pp 69-75.
8. Reserve Bank of India’s (RBI) report, **Payment and Settlement Systems in India: Vision-2018**
9. <https://www.bluefin.com/bluefin-news/mobile-wallets-united-payments-interface-upi/>
10. <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/upi-is-stealing-a-march-over-mobile-wallets-now/articleshow/66079406.cms>
11. <https://www.livemint.com/Money/A1bTvyBsfMmZeNu6oSfozJ/4-reasons-why-UPI-may-overtake-mobile-wallets-soon.html>
12. <https://qz.com/india/1227756/upi-vs-mobikwik-freecharge-ola-money-india-government-e-payments-gateway-is-killing-e-wallets/>
13. <https://qz.com/india/1329548/indias-mobile-wallets-thrive-despite-crippling-rbi-regulation/>

14. Conclusion : <https://www.iimb.ac.in/sites/default/files/inline-files/iimb-csitm-security-issues-in-mobile-payment.pdf>
15. <https://www.livemint.com/Industry/AkI6PwPp6D3LB3rmbz6hpK/The-coming-UPI-battle-in-mobile-payments.html>
16. <https://indianexpress.com/article/technology/tech-news-technology/upi-vs-mobile-wallets-heres-why-everyone-has-got-this-wrong/>
17. <https://rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1236>
18. <https://www.paymentscardsandmobile.com/upi-leads-vibrant-indian-mobile-wallet-rankings/>
19. <https://yourstory.com/2016/05/rbis-unified-payments-mobile-wallets-redundant-report>
20. <http://www.pbr.co.in/2018/april10.aspx>