

RESEARCH PAPER

Digital payments : growth, challenges and opportunities in Uttar Pradesh, India

■ S.MD. SHAKIR ALI AND GOVIND KUMAR

Received : 20.07.2017; Revised : 05.09.2017; Accepted : 19.09.2017

ABSTRACT

The recent state polls that were carried out in U.P. has gained phenomenal attention from the global quarters as it is considered as a mandate and acceptance of nation, for the demonitization reform and the push for digital payments. If such an interpretation stands true with the results coherence, then it can be stated that demonitization is a huge success and paved a new way for digital payments. However, the crux that is curious for interpretation is whether the digital payments were voluntarily being a choice for the consumers or is it because of lack of options to handle the cash transactions, the way of digital payments are embraced. From the qualitative and opinion analysis that is carried out it is evident that despite the fact that people are still preferring cash transactions, slowly the syndrome of getting habituated to digital payments are rising high. If the stakeholders can ensure right dynamics like robust infrastructure, initiatives for socio-economic reforms and empowering consumers with an integrated platform, certainly the process can be more effective in transformation towards digital payment modalities in U.P. and across the nation.

KEY WORDS : Digital payment, E-commerce, UPI, BHIM, M- Wallet, Digital divide, PoS, Digital transactions, Demonetization, Digital payments in U.P.

How to cite this paper : Ali, S.Md. Shakir and Kumar, Govind (2017). Digital payments : growth, challenges and opportunities in Uttar Pradesh, India. *Internat. J. Com. & Bus. Manage*, 10(2) : 186-192, DOI: 10.15740/HAS/IJCBM/10.2/186-192.

India is one of the largest democratic nation, comprising many bigger and smaller states. Uttar Pradesh is one of the bigger states of the country and many parts of U.P. are integral part of business hubs of India. The recent state polls that were carried out in

UP has gained phenomenal attention from the global quarters, as it is presumed that the immediate elections post the reforms could indicate the acceptance or rejection from the public towards a specific reform (Dennehy and Sammon, 2015).

Though, there is hardly any imperative inference that the decision and results of polls are pure acceptance or rejection towards a specific decision, the recent poll results has been seen more intrinsic to gauge the public response to the demonitization act (EY, 2016).

In the recent past, there is wide range of transformation that is taking place in the nation, pertaining to economic and financial reforms. For instance, some

MEMBERS OF THE RESEARCH FORUM

Correspondence to:

S.MD. SHAKIR ALI, Department of Management and Commerce,
Mewar University, Gangrar, CHITTORGARH (RAJASTHAN) INDIA
Email: info@shakirali.in

Authors' affiliations:

GOVIND KUMAR, Department of Commerce and Management,
Rama University, KANPUR (U.P.) INDIA
Email: gkfmshbu@gmail.com

of the key measures like opening pro-poor accounts like Jan Dhan accounts (EY, 2016 and Waghmare, 2017), ensuring direct transfer of subsidies to the consumers accounts, linking Aadhar cards for the bank accounts towards increasing the transparency in transactions etc. were certain mile stones that were taken towards seeding a major transformation in the Indian economy from cash based economy to cash less economy (Padmaavathy and Adalarasu, 2014).

If the developments and initiatives that were taken up in the last 2-3 years towards ramping up the necessary infrastructure for digital payments scenario are considered, it is imperative that there was an underlying vision and process towards digital payments. In comparative analysis of various statistics and results of varied surveys, sentiment analysis fuelled on the basis of social media response and public opinion survey, it is evident that post demonitization, digital payments has ran in to mainstream payment models (Horowitz, 2012).

Cash driven system is overtaken by the digital payments across the states and in many industrial verticals. There are numerous reasons that could be attributed to evolving developments. Right from the government initiatives like issuance of payment bank license, implementing de-monetization scheme, incentivising digital payments, curb on cash transactions, regulating compliance systems etc. (Panchal, 2016 and Acharyya, 2016). In the other dimension, review of certain statistics from the very recent past indicate that though post-demonitization, the process of digital payments has gained momentum, once the remonetisation started rolling, there is slow down in the quantum of digital payments (IMAP, 2017).

The statistics detailed in the Fig.1 provided below advocate the aforesaid statement that with the remonetisation taking place, slowly there is decline the quantum of digital transactions.

Excerpts from the sentiment analysis of opinions expressed by industry experts also point to the fact that though the digital payments might have significant importance in the long run, still the cash based transactions are not elusive and in many states and regions still cash based transactions are being the preference of the consumers (Waghmare, 2017).

For instance, according to an assessment by RBI (Reserve Bank of India), the report quotes that “The catalytic push from demonetisation hastened migration

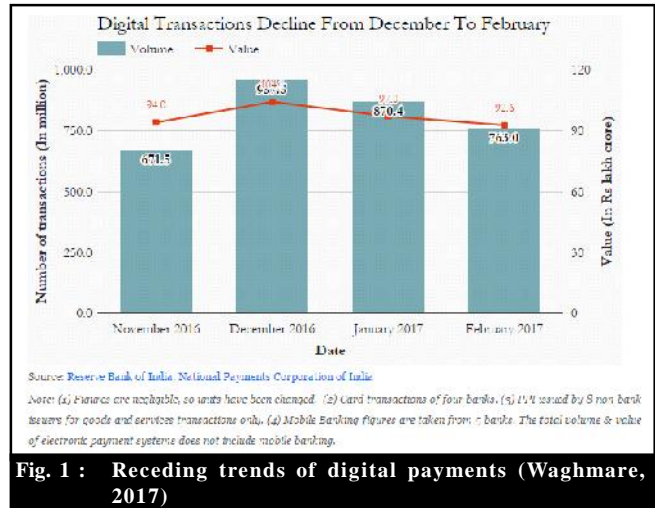


Fig. 1 : Receding trends of digital payments (Waghmare, 2017)

towards digital payments in November and December 2016. However, ease in availability of cash by progressive remonetisation impacted the pace of growth of digitalisation in February 2017” (Waghmare, 2017).

Considering such contradicting conditions of growth and challenges and the Uttar Pradesh poll mandate as inferred acceptance of de-monetization and digital payment reforms of central government, the emphasis in this study is about understanding the changing dynamics of economic reforms in U.P. and the growth, challenges and opportunities for digital payments in U.P. state (Padmaavathy and Adalarasu, 2014).

The further sections of this article provides overview of how the business equations has changed in U.P. post demonitization, the way digital payments are embraced in the state, the hurdles and barriers that are obstructing the growth of digital payment. Also, the inputs gathered from a small survey conducted with varied stakeholders of the business environment were also discussed to gain insights in to the emerging trends (Panchal, 2016).

Business economics of U.P. state :

Uttar Pradesh the northern state of India is one of the biggest states of the country with well-developed agro-based industries. Also, the state is considered to be the sugar bowl of India, and close to 30% of India’s sugar production yields from U.P. (KPMG, 2004).

Some of the allied industries like cold storages, warehousing have also raised in a significant manner, resulting from affluence of agriculture. There are many prime cities in U.P. that are known for its industrial belt (Lucknow, Kanpur, Ghaziabad, and Noida) and one of

the ancient cities of the world, the Varanasi is also part of U.P. (KPMG, 2004). Huge quantum of livestock population has also fuelled the growth of leather industry in Kanpur and Agra the popular tourist destination has also emerged as hubs for leather products is the other promising sector (IMAP, 2017 and KPMG, 2004).

It is imperative from the inputs detailed above, that there are significant developments in U.P. and both rural and urban parts of U.P. have potential business drivers. From the excerpts generated from various reports, certain key inputs that are considered as the drivers of business in U.P. are:

- One of the highly populated state of the country
- Longest network of rail connectivity, ranked second in terms of road network, and one of the longest river network.
- Highest number of domestic tourists in the country (KPMG, 2004).
- Rich cultural heritage and monumental sites in the state attract millions of domestic and foreign tourists to the state.
- One of the leading contenders in exports of electronics and software services (KPMG, 2004).

Considering such dynamic growth factors attributing to the success of the state, it is evident that economic growth and contribution of the state has direct impact over the national economic development and also has significant impact on the national agenda of digital economy (Jain, 2017).

One of the key reasons to consider the U.P. state for analysis of the emerging market trends for digital payments is that as U.P. is highly populated state of the country, the end user level response in UP is very critical for driving the digital payments to a successful point. And if U.P. can embrace the digital payment solutions, it can certainly be a driving force for transition process in the other states too (Iyer, 2017 and Singh, 2016).

In terms of assessing challenges for digital payments adaptation in U.P., the operational complexities and issues of digital divide could be intrinsic factors. If such magnitude of complexities are taken in to account for analysing the bottle necks and critical success factors, it will enable the stakeholders in pushing the digital payments in other locations too in much easier manner. (Iyer, 2017 and Demonetisation and Merchants, 2017).

Drivers and opportunities of digital payments in

UP :

India has been predominantly a cash based economy and for the transformation to become a cashless economy, there are significant developments that are essential. For instance the ICT infrastructure, readiness of the Indian banking system, secured information systems and transaction processing networks are integral need (Padmaavathy and Adalarasu, 2014 and Acharyya, 2016).

Alongside such factors, even the readiness of the government, stakeholders of the industry is also a vital need for successful implementation of digital payment solutions. It is imperative from the developments that has taken place in the recent past and certain initiatives and reforms that were allowed, that all the stakeholders are focusing on developing a robust system of digital payment solutions (Acharyya, 2016 and Pahwa, 2016).

Some of the initiatives that could be considered as key drivers towards enabling digital payment solutions in U.P. are:

- Increasing penetration of internet and mobile communication services
- Targeting to enrol people with Aadhar identification system
- Focus on integrating the bank accounts of people with KYC, registration of mobile numbers, issuance of debit cards
- Issuance of PPI (Pre-Paid Instrument) licenses to banking and certain private institutions
- Forming compliance policies and regulations for digital wallet companies /services
- Enabling people to open Jan Dhan accounts with zero balance scheme
- Improving the necessary last mile connectivity solutions that can support in encouraging more users to adapt digital payment solutions (Waghmare, 2017; Padmaavathy and Adalarasu, 2014 and IMAP, 2017).

For instance, one of the leading payment bank “Airtel” has stated that “Airtel Payments Bank is expanding its footprint in the rural and unbanked pockets of Uttar Pradesh. So far, it has clocked over 1,00,000 savings accounts in U.P. within two weeks of its launch”. The aforesaid statement from Airtel depicts the growing demand and acceptance from the end users in U.P. (FE, 2016).

Also, the payment bank Airtel has confirmed that more than 12,000 retailers have registered with their

payment bank solution, from both rural and urban UP. This clearly signifies the potential scope and opportunity that can be envisaged in U.P. for digital payment solutions (FE, 2016).

In the other dimension, the donations towards spiritual institutions, offering in the religious places has also undergone the impact of demonitization, and in a quick turnaround time, the digital payment solutions has turned to be an alternative solution, wherein the display boards has come up in religious places and spiritual institutions that digital transfers using PayTm, Mobiwik, BHIM etc., shall also be accepted (Jain, 2017 and Rawat, 2017).

It is imperative from the statistical inputs provided by various mobile wallet companies that the surge in their user accounts are growing from the rural locations too on par with the urban users. This clearly defines that there is profound scope for implementing digital wallet solutions for the companies, and if right kind of systems and practices are adapted, certainly there could be more effective outcome (Jain, 2017 and Demonetisation and Merchants, 2017).

Despite the fact that there are many positives that are envisaged in the process, the other factor that could be considered is that is that the change and transformation that is taking place is push-kind of transformation or a pull-strategy (Singh, 2016).

Key challenges for digital payments initiatives :

There are vivid range of challenges that are envisaged in the market for digital payments. Similar to many other states even in U.P., there are certain challenges that are envisaged in the current market scenario.

For instance, as the Fig.1 in the earlier section has depicted about the falling rate of digital transactions in the last month, it clearly marks a resistance for change factor (KPMG, 2004; Panchal, 2016 and Waghmare, 2017).

The other key issue that is related to state level initiatives are about the local government participation in to the proposed reforms by the federal government. Evidentially, in many of the states the digital payment transactions were also impacted due to political factors, as some local governments had resentment towards demonitization (IMAP, 2017).

Though there could be some kind of socio-economic

impacts that might impact such revolutionary transformation, unless there is unanimous and undeterred attempt for all the stakeholders take place, driving such huge initiatives with such vast population could be a critical challenge (Padmaavathy and Adalarasu, 2014 and Singh, 2016).

Considering technical readiness of the system, there is need for robust systems, practices, compliance and regulatory practices that are essential for implementation. For instance, in the recent past, there has been a major security breach in which millions of debit cards of various banks were compromised. Despite that such factors are one of its kind incidents, there are many such incidents that keep taking place, and it might lead to breach of trust and common public refraining from adapting digital platforms for transactions (Waghmare, 2017; Padmaavathy and Adalarasu, 2014 and Pahwa, 2016).

Study of varied research reports clearly signify the fact that though there are many initiatives that are driven both in the form of incentivising digitalization and curbing cash transactions are taking place, still the readiness of the systems, practices and integration of data is at nascent stage and need war-footing preparation (Horowitz, 2012).

Some of the key challenges envisaged as hurdles for digital payment solutions are:

- Cultural resistance to the changing trends as cash has been the king
 - Though there is digital transaction setting in at B2C levels, B2B level market resistance is a bottle neck.
 - Lack of cross wallet transfers (recently addressed by Bharat QR code) practice has been a challenge, and there is need to promote Bharat QR code aggressively
 - Issues pertaining to connectivity and false positive transactions are an alarming concern and such factors have to be mitigated.
 - Increase vigilance to code of compliance and ensure that transactions are secured and the personal data of the users are not compromised
 - Lack of comprehensive system to ensure that end-to-end system in the business comprising all stakeholders are on board for digital transaction systems.
- Unless the aforesaid challenges are overcome and addressed in effective ways, ensuring significant development in fuelling the growth of digital payments in UP might be a major challenge (Horowitz, 2012;

Waghmare, 2017; Padmaavathy and Adalarasu, 2014; Panchal, 2016; Acharyya, 2016; IMAP, 2017 and Pahwa, 2016).

Perception analysis :

As a part of the research study focused on the digital payments development and understanding the emerging market trends for digital payments, a small survey study has been conducted across varied rural and urban locations of U.P., in an informal structure.

The key objective for the proposed survey or the opinion poll is to gather the trends and the intrinsic factors that are impacting the digital payment trends.

Following are the key hypothesis that are considered for the proposed sentiment analysis

- Is the digital payment solutions growth fuelled by the emerging trends of banking and technology revolutions or due to challenges of cash curb post-demonitization?
- Are the key factors that were driving the digital payments prior to demonitization era been resourceful
- Did the process of demonitization act as a platform for pushing the digitalization process in to the minds of public?

On the basis of opinion poll conducted and the survey inputs gathered from vivid sources of social media network and online polls, the following are the key inputs that generated that support in understanding the crux factors involved in the process.

For a question on the preferred digital transaction model, majority of the respondents have still opted for net/mobile banking solutions (Fig. 2) and certainly the impact in terms of number of people keen on using the digital wallets are also growing high.

However, one of the common issues that were interpreted in the challenges expressed by the users, the fact that “not every digital wallet is accepted by every

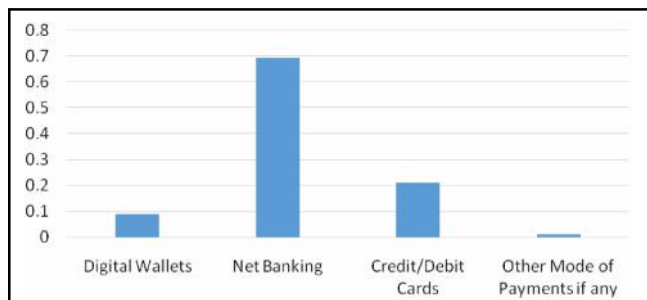


Fig. 2 : Preferred transaction mode

merchandise” and if a customer has uses a Paytm wallet and the retailer has only SBI buddy or Mobiwik, making digital wallet transaction has been a challenge.

However, with the recent introduction of Bharat QR, this issue could be overcome provided the process is handled in quick turnaround time. Unless such cross functional solutions are not put in practice, the digital payment challenges might continue.

For a question on the key aspects that has driven the system, in the post-demonitization process, the results are imperative (Fig. 3) that impact of demonitization has been one of the intrinsic factors that has led to many users adapting the digital transaction systems. It is evident from the study of the opinions expressed by the people that though earlier some of them were using the digital transactions to an extent, the frequency and quantum of usage of digital transactions has increased by great extent with them.

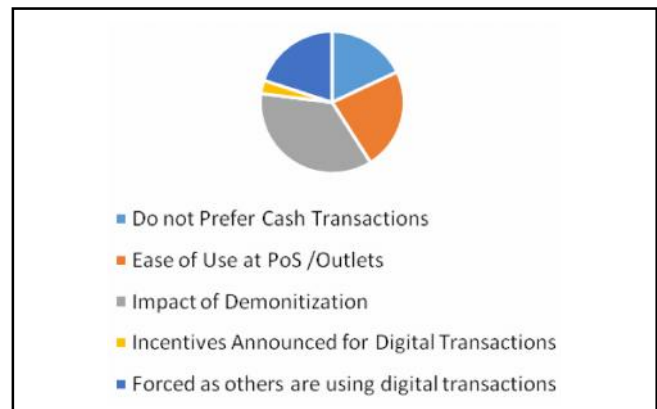


Fig. 3 : Post demonitization drivers

In the case of certain users, they have hardly tried the digital payment solutions earlier, and the repercussions

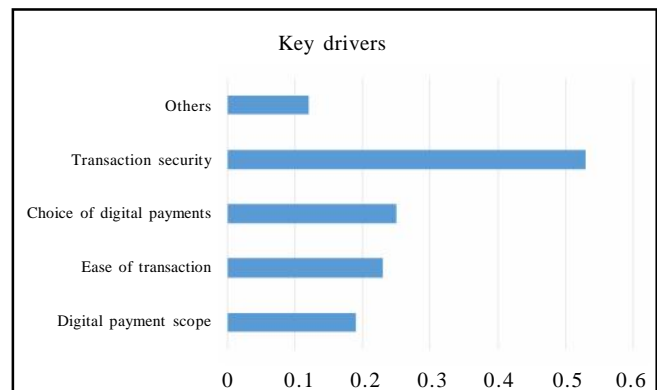


Fig. 4 : Key success drivers

of the post demonitization has driven them towards embracing the digital payment options.

The key drivers that are considered as the motivational factor for implementing the system were discussed in the opinion polls, and from the results it is imperative that Transaction security and Choice of digital payments are given high level of importance. If the stakeholders can ensure that such factors are addressed in effective ways, certainly there are potential developments that could be envisaged in the process.

Conclusion :

Digitalization of payments and transactions can lead to significant rise in the transparency, ease of use and improved quality of transactions. In the state like UP which has conglomerate elements of business, agriculture, rural and urban population, new cities and traditional cultures of business practices, etc, if the digital payment stakeholders can be successful in implementation, certainly it can lead to significant developments across all the other states too. Despite the fact that there is strong resistance for change (accepting digital payments way of life) envisaged with the remonetisation process coming in, still if the reforms and regulations are managed there are potential chances that the transformation could take place.

Though, in the initial trends it might be a push-strategy of pushing the digital reforms, the scores of benefits that could be experienced by the customers might eventually lead to the voluntary transformation towards such a system. However, the caution that has to be exercised in implementation of system is that infrastructure readiness for implementation holds the crux. Parallel approach in terms of improving the awareness, incentivising digital payments and ensuring service connectivity and infrastructure support is essential. In the absence of any one of the aforesaid element, the transformation towards digital payments era might be off track.

Recommendations :

Following are some of the key factors that are considered as significant need for the transformation towards digital payments

- Reduce the digital divide
- Ensure robust infrastructure and connectivity
- Cross platform integration

- Compliance systems in place
- Empower the stakeholders to access the change
- Handle the resistance to change with effective change management strategy
 - Make all the public sector collections and disbursements to public only by digital transactions directly to accounts rather than providing subsidies etc.
 - Create a digital payments communication exchange to facilitate the process of transition

REFERENCES

- Dennehy, D. and Sammon, D. (2015). Trends in mobile payments research: A literature review. *J. Innovation Mgmt.*, 3(1) : 49-61.
- EY (2016). Mobile money - the next wave, s.l.: EY.
- Horowitz, M.J. (2012). Self-identity theory and research methods. *J. Res. Practice*, 8 (2) Article M14,.
- IMAP (2017). Payments Industry in India, s.l.: IMAP.
- KPMG (2004). Indian States Economy and Business, s.l.: IBEF.
- Padmaavathy and Adalarasu (2014). The modern wallet : Mobile wallet a distant dream in India. *My Research Journals*, 3(12).
- Pahwa, N. (2016). Cash vs Digital Money: why going cashless is going to be tough in India. [Online] Available at: <http://www.medianama.com/2016/11/223-cashless-india/> [Accessed 23 Feb 2017].
- Panchal, S. (2016). UPI: When banks turn mobile wallets. [Online] Available at: <http://www.forbesindia.com/article/checkin/upi-when-banks-turn-mobile-wallets/43093/1> [Accessed 23 Feb 2017].

■ WEBLIOGRAPHY

- Acharyya, K. (2016). Demonetisation: Digital transactions meet roadblocks in rural India, effects felt everywhere. [Online] Available at: <http://www.firstpost.com/india/demonetisation-digital-transactions-meet-roadblocks-in-rural-india-effects-felt-everywhere-3166058.html> [Accessed 25 Feb 2017].
- Demonetisation and Merchants | The Promise, The Potential and The Practicality, Deloitte, <http://www.communicationstoday.co.in/images/reports/20170217-demonetisation-for-small-merchants-final-report.pdf> [Accessed 25-03-2017]
- FE Online; Uttar Pradesh: Devotees now turn the digital way for making donations during Ganga Aarti in Varanasi; Published: December 24, 2016; <http://www.financialexpress.com/india-news/uttar->

pradesh-devotees-now-turn-the-digital-way-for-making-donations-during-ganga-aarti-in-varanasi/485511/[Accessed: April 04, 2017;]

- Iyer, S. (2017). Digital payment trend shows mixed results in February. [Online] Available at: <http://timesofindia.indiatimes.com/city/pune/digital-payment-trend-shows-mixed-results-in-february/articleshow/57525464.cms> [Accessed 20 Mar 2017].
- Jain, M. (2017). Mastercard, Visa And Rupay Come Together To Launch BharatQR For Digital Payments. [Online] Available at: <https://www.bloombergquint.com/business/2017/02/19/mastercard-visa-and-rupay-come-together-to-launch-indiaqr-for-digital-payments> [Accessed 21 Mar 2017].
- Rawat, Virendra Singh (2017). Airtel Payments Bank opens over 100,000 savings accounts in UP in 2 weeks, February 2, 2017, http://www.business-standard.com/article/finance/airtel-payments-bank-opens-over-100-000-savings-accounts-in-up-in-2-weeks-117020200868_1.html [Accessed : April 04, 2017].
- Singh, R. (2016). Demonetisation: Why the challenge to take digital payment to rural India is as huge as the opportunity. [Online] Available at: <http://economictimes.indiatimes.com/news/economy/policy/sunday-et-making-rural-india-pay-digitially-and-challenges-post-demonetisation/articleshow/55640316.cms> [Accessed 25 Feb 2017].
- Waghmare, A. (2017). Digital Transactions Recede, Threaten Digital India. [Online] Available at: <http://www.indiaspend.com/cover-story/digital-transactions-recede-threaten-digital-india-77955> [Accessed 21 Mar 2017].

10th
Year
★★★★★ of Excellence ★★★★★