




## INFOSYS MONEY 2020 – POV ON INDUSTRY TRENDS IN MERCHANT POS TERMINALS AND SOFT POS



## Pandemic has accelerated adoption of contactless transactions

Pandemic has accelerated consumer adoption of contactless card transaction and NFC mobile transactions as they have enabled 'no touch' payment transactions at Merchant outlets and have helped to do away with / reduce usage of physical cash. The pandemic led to consumers shifting to eCommerce purchases in a big way. These trends have led to increased adoption of mobile phones as primary payment mode for both consumers and merchants. Smart phones that are NFC enabled and have access to internet have been a game changer and account for wider acceptance among small business merchants owing to their cost-effective way of acquiring consumer card transaction. As usage of "tap and pay" transactions increased at merchant outlets and consumers increasingly embraced mobile commerce, there has been a profound uptick in usage of NFC mobile wallets, wearable based payments, mobile in-app payments, and mobile phone based pos terminals.

*It is estimated that, by 2026, more than half of the global transactions (by value) would be contactless payments with the number of mobile phones that support contactless payments increase massively by 750%. Market statistics highlight that there has been a significant increase in Original Equipment Manufacturers (OEM) pay transactions, Contactless card transactions and a not so insignificant decrease in other forms of payments including cash.*

*The digital payment market has been on stupendous growth wave ever since the outbreak of the pandemic globally. Consumers are embracing*

*"Digital First" in their daily walk of life, thereby accelerating the growth of digital payments. The outcome is projected to be everlasting on the payment industry and would continue to be the new normal even after the era of pandemic.*

*In the upcoming years, the spike in the number of mobile wallet users for making day-today purchases in both in-store and online would see a steady progress in the market owing to the sturdy footprint set by players such as Apple Pay, Google Pay and Samsung Pay as the digital payment players make the best out of the pandemic.*

## Increasing usage of mobile devices for POS acquiring

The onset of pandemic has encouraged the merchants to look out for different means of accepting payments from their customers that reduces physical contact / touch and avoids exchange of cash notes. This has resulted in the increased adoption of mPOS (mobile Point-Of-Sale) terminals for processing payments. mPOS enables merchants to utilize their smart phone as a device for processing point-of-sale transactions.

*Merchants are inclined towards mPOS usage due to the following reasons:-*

1. Ease of payments processing for consumer purchases
2. Lower fixed cost and maintenance cost for merchants (when compared to traditional POS devices)
3. Ease of set-up and usage
4. Global adoption of EMV chip cards
5. Upsurge in contactless card transactions / Mobile NFC transactions
6. Rich features offered by Cloud based mobile POS service provider



*Merchants and retail chains have increased their focus on omnichannel retailing which provide consumers with a seamless and consistent purchase and payments experience across physical outlets, mobile app-based purchase with home delivery or curb side pick-ups. Such merchants look for additional abilities in POS terminals apart from plain vanilla transaction processing capabilities. Additional capabilities in order billing, inventory management, loyalty / rewards, targeted offers, digital receipt generation, analytics & report*

*generation, staff management (employee scheduling & planning) and payroll management are relevant and useful to such merchants.*

*mPOS transactions are expected to grow 18% annually until 2024. Juniper research has highlighted that mPOS Transactions will represent 24% of all POS Transactions by 2023. China had the highest number of mPOS transactions in 2019 followed by United States of America and United Kingdom.*

## Increasing usage of mobile devices for POS acquiring (continued...)



*In markets like India, small merchants have been reluctant in using POS terminal devices due to the cost incurred in setting up the POS hardware terminal and the maintenance cost involved. mPOS solution overcomes these challenges and provide an affordable and simple solution to small business merchants by enabling them to use their smartphone as the POS terminal for processing payments. Indian telecom player Reliance Jio has announced roll-out of mPOS solutions to help digitize 5 million small merchants (kirana stores) by 2023.*

*mPOS solutions are becoming multi-purpose by offering various other functionalities / features and are enabling a digital first*

*approach to managing the merchants' business beyond just handling payment transactions. mPOS features related to data security, safer use of wi-fi network, ease of deployment and flexibility of multi-app configurations provide compelling reasons for merchants to embrace mPOS solution in a big way and thus pave the way for small business merchants to shift towards digital payments. mPOS solution offerings available in the market support business needs of small merchants across sales management, inventory management, order management, employ management, payroll management and loyalty management.*

## Payments Security norms followed by industry players providing mPOS and Soft POS solutions

Some of the Payments Security related norms followed by Industry players in mPOS / soft POS solutions are:

1. The mPOS solution providers should ensure that the mobile POS software and any related software adheres to PCI standards. PCI PIN Transaction Security Point of Interaction (PTS POI) from Payment Card Industry Security Standards Council (PCI SSC) provides security standards for traditional hardware-based POS devices. Adherence to PTS POI standards focuses on confidentiality, integrity and processing of the Card PIN data and thereby ensures that the Card PIN data is handled securely by the POS device. PCI SSC introduced the PCI Software-Based PIN Entry on COTS (SPoC) standard for mobile POS solutions. SPoC ensures security by design and focuses on confidentiality, integrity, and processing of the Card PIN data in mPOS.
2. Standards for deactivating the payment application on lost or stolen mobile and ensuring the secure data cannot be manipulated.
3. Card reader enabled mPOS solutions should have necessary standards in place for transaction data encryption to be able to securely transmit the payments data from the mobile device to the Payments processor via mobile phone network.
4. Card Account number information should not be stored on the smartphones once the transaction authorization processing and merchant data submission to merchant processor / acquiring bank is completed.
5. mPOS solutions supporting mobile



6. NFC based contactless transactions must ensure that transactions are processed securely with Cardholder Authentication performed on the consumers' mobile device.
7. mPOS solution should support issuance of digital receipts to cardholders as a confirmation of successful transaction processing done through mPOS enabled mobile devices. These receipts should be sent to consumer for future reference and should not reveal any sensitive information such as the Card number in full or CVV or expiry date.

## Industry Trends in Mobile POS and Soft POS



'Pin on Glass' feature is gaining adoption amongst Mobile POS solution providers. mPOS solution uses a secure card reader for capturing the EMV chip information from the card and then prompts the cardholder to enter the Card PIN on the mobile phone device (mPOS mobile app displays a virtual PIN pad). Cloud based mPOS is another industry trend that is gaining traction. Cloud based mPOS solutions enable storage of transaction details in the cloud environment while the mPOS devices store only the transaction list locally. Once the transaction is

authorized, transaction details are stored in the Cloud and are no longer available in the mPOS device. Merchant submission processing is done using the transaction data available in Cloud. This approach reduces the risk involved in data security related to mobile device getting hacked or getting stolen.

Cloud based mobile Point-Of-Sale solutions offered by MasterCard provide enhanced data security and adherence to PCI DSS data security standards. The solution offerings enable handling majority

of the contactless functionality in the cloud and stores the transaction details in a PCI DSS certified cloud environment. This approach provides options of implementing the cloud based mPOS solution in multiple devices with a single view in a cost-effective way. Biometric POS is another industry trend gaining ground in countries like India, specifically in market segments focused on the unbanked and underbanked consumer segment. Such solution enables consumers to move away from cash payments and embrace digital payments.

*Square is one of the leading players in mPOS solutions. Square offers several features in mPOS offerings enabling small merchants to sync an online store with their mPOS, sell through Instagram and Facebook with a tap, offer curbside pickup / local delivery / shipping, Team management (Schedule, manage, and pay employees), accept payments remotely with invoices Cash Management, run Loyalty program, personalized marketing campaigns (via text or email) and Offer gift cards (person and online). Square's offerings to small merchants include Capital loans, Payroll processing and eCommerce transaction acquiring. Square offers targeted mPOS solutions for business verticals such as restaurants, retail, and service providers (Hair & beauty salons, Spas & Nail salons, personal training / fitness trainers, health & wellness, home repair & cleaning, tutoring & music lessons). Square has fostered innovation in mPOS solution features by providing*

*tool for customer data analysis and sales report generation that would help merchants in managing and expanding their business operations.*

*iZettle mPOS solution offerings include facility to identify trends in merchant business using sales data. SumUp mPOS solution offerings include fraud & risk management and acceptance of Bitcoin as a payment option. Fiserv's Clover mPOS solution is a bundled offering of hardware and software. Clover has several features such as preloading of merchant's inventory / menu, simplified UI, Web Dashboard based reporting that can be accessed from any smart device, preconfigured & customized reports, inventory management, sales tracking, and employee management. Clover App Market offers several mobile apps enabling merchant to customize their Clover Station based on their business needs. Shopify provides mPOS solution for omni-channel commerce – online purchase and purchase at physical outlets*



## Conclusion

Though the pandemic has had an adverse health effect on the world population and has impacted the global economy, it has brought Digital to the forefront of consumers' lifestyle. There has been a massive uptick in

consumer adoption of digital commerce, digital payments, and contactless payments. Contactless payments (both EMV Card based, and NFC mobile based) have re-defined payments at merchant outlets in a transformational way. Uptick in Digital payments has expanded the market for

FinTechs to strive to bring innovation and make payments secure and frictionless. mPOS industry players are focused on updating their offerings to enable simple, affordable, and secure payment solutions for consumers and simplified and digitized operations for merchants.

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