



# An overview

Contactless payments are cashless transactions that do not require cards to be swiped or dipped at Point-of-Sale (POS) terminals. Several instruments – such as credit and debit cards, key-fobs, smartphones, and certain mobile devices – can initiate contactless transactions by using Near-Field Communication (NFC) technology, allowing contactless debit or credit credentials to communicate with NFC-enabled terminals at close range (usually 4 cm or less). NFC also powers mobile wallet apps such as Apple Pay®, Samsung Pay®, and Google Pay™ on NFC-enabled Apple and Android smartphones today.

EMV chip card adoption has been pivotal for the growth of contactless payments in many developed and developing economies. Offering a cohesive experience of convenience, speed and enhanced security features to consumers, merchants and payment processors in face-to-face transactions, contactless payments are poised to grow faster than any other form(s) of payment technology.



The pandemic has left us with a renewed focus on contact hygiene, which has sparked further growth in contactless payments worldwide. A survey by Visa – The Back to Business Study (June 2021)<sup>2</sup>, 2,250 small businesses and 5,000 adult consumers in 9 countries, showed that 60% of consumers “expect to use contactless wherever possible”, and 67% expect “brick-and-mortar retail stores to accept contactless” going forward. Coupled with the growth in digital literacy, smartphone adoption and fintech innovation, contactless payments are likely to be the default payment method in the foreseeable future.

There may already be more than 2 billion contactless debit and credit cards issued globally; and the global contactless payment market size is expected to reach USD 6.25 trillion by 2028<sup>1</sup>.

<sup>1</sup>Source: [Research and Markets](#)

<sup>2</sup>Source: [The Visa Back to Business Study](#)



# India's Contactless journey

In **May 2015** contactless transactions in India received a vote of confidence when the **RBI allowed transactions below INR 2,000 to be authorised at POS terminals without the need for cardholders to enter their PIN.**

The RBI circular specified that all contactless cards “should necessarily be chip cards adhering to the EMV payment standard, so as to be acceptable across the existing card acceptance infrastructure which are EMV compliant based on the earlier mandate in this regard.”<sup>3</sup>

In **2018** the Indian Finance Minister asked banks to consider issuing a greater proportion of NFC-enabled cards as part of the larger government initiative to push digital payments.

In July 2018, the directive to add NFC capabilities to EMV cards – which were rapidly beginning to replace mag-stripe cards – pushed this program even further. Finally, in December 2020, the RBI decided that with effect from

**January 1, 2021, the limit for contactless transactions (without a PIN) would be increased to INR 5,000<sup>4</sup>.** Since the average ticket size for card transactions in December 2020 was INR 2318 (Avg. Credit: INR 3651; Avg. Debit: INR 1706) this move could potentially accelerate both merchant adoption and consumer usage.

As of **March 2022** there were over 73.6 million credit cards, over 917 million debit cards, and over 6 million terminals in India, based on Reserve Bank of India data<sup>5</sup>. Concurrently, **the penetration of contactless cards as well as the deployment of NFC-enabled terminals has continued to grow.**



<sup>3,4,5</sup>Source: RBI notifications (May'15, Dec'20, Mar'22)



# Contactless transactions lead through the pandemic

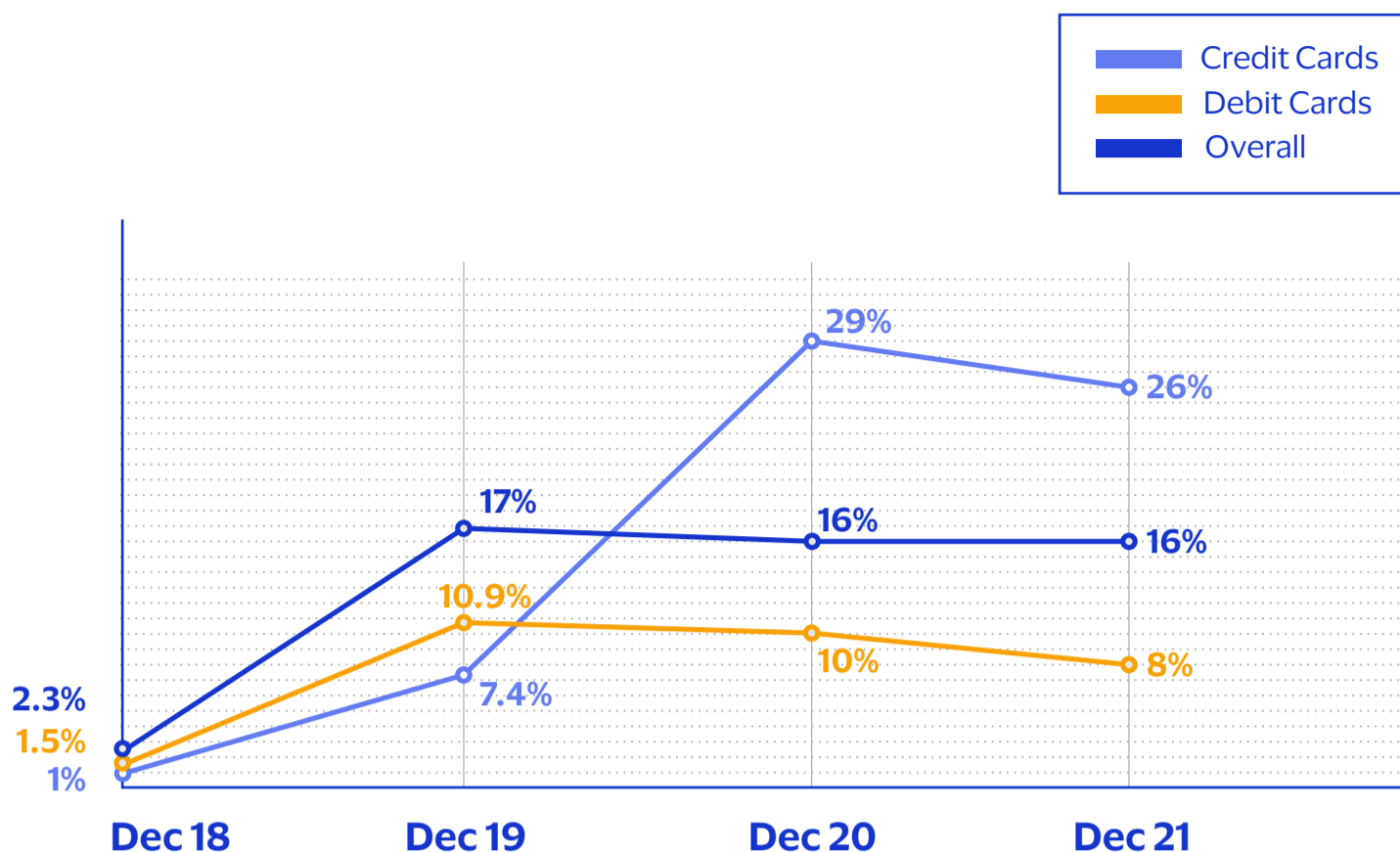


Chart 1: Contactless as a % of total F2F domestic transactions

## The above chart demonstrates:

- Both cardholders and merchants have embraced contactless payments in less than 2 years.
- The percentage of contactless transactions in total F2F transactions grew by more than 6x, from <2.5% in December 2018 to 16% in December 2021.

The relative expansion of merchants accepting contactless payments has also contributed to the growth of contactless transactions over time:

- By the end of June 2019, the top 20 merchants accounted for 20% of all domestic contactless transactions by count. This decreased to 16% by the end of June 2020 and continues to show a reducing trend.

The advent of inexpensive and convenient acceptance forms such as 'tap to phone' are enabling merchants to use their own smartphones to accept digital payments. Merchant adoption is therefore expected to magnify significantly.

During peak COVID-19 times, the number of domestic F2F transactions grew only by 6.25%, but contactless transactions in March 2021 grew by 28.5%, compared to March 2020.

(\*As of December of each year)

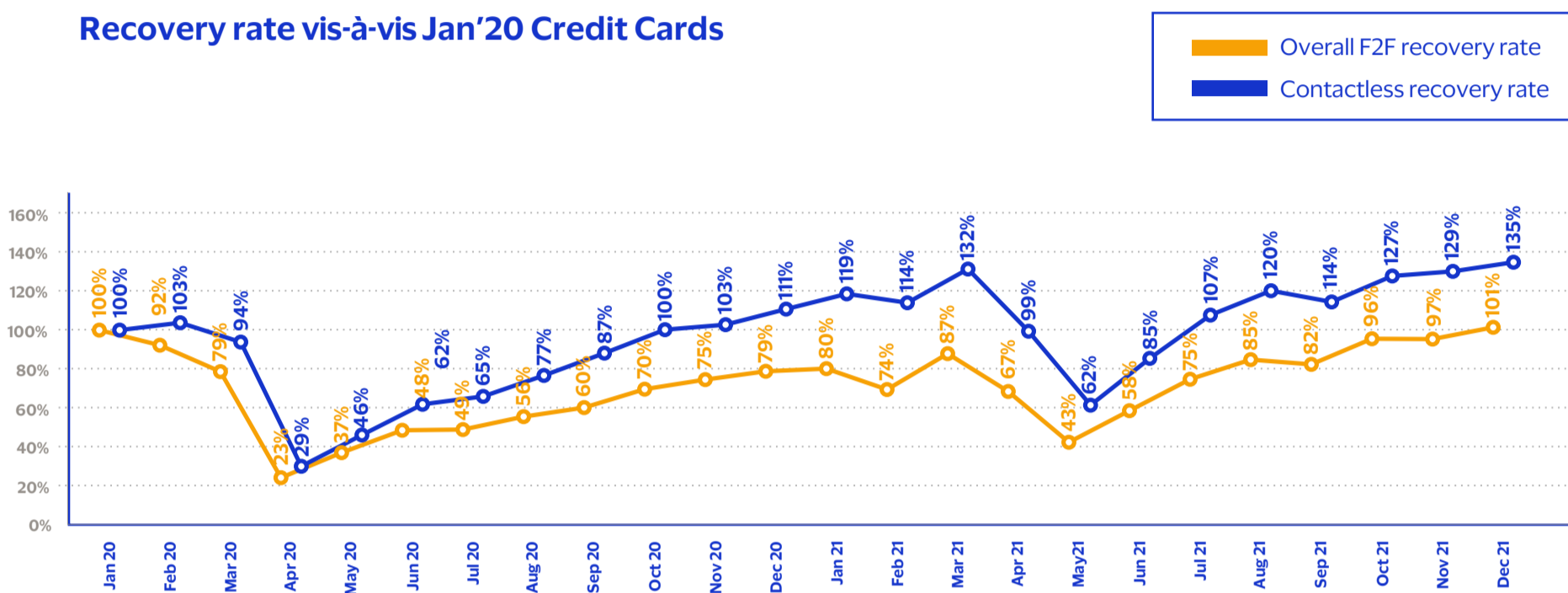


# Consumer bias towards Contactless payments on the rise

While the COVID-19 pandemic has taken its toll on the economy – and payments have suffered as a consequence – data from 2021 shows that contactless transactions are recovering at a faster pace than other forms of F2F payments. The continuing emphasis on contact-free payments has led to contactless form factors being more

widely adopted by cardholders. Simultaneously, a significant number of merchants – especially in high frequency market segments like grocery, pharmacies, restaurants and QSRs – have taken to adopting contactless as the default mode for card acceptance.

Recovery rate vis-à-vis Jan'20 Credit Cards



Recovery rate vis-à-vis Jan'20 Debit Cards

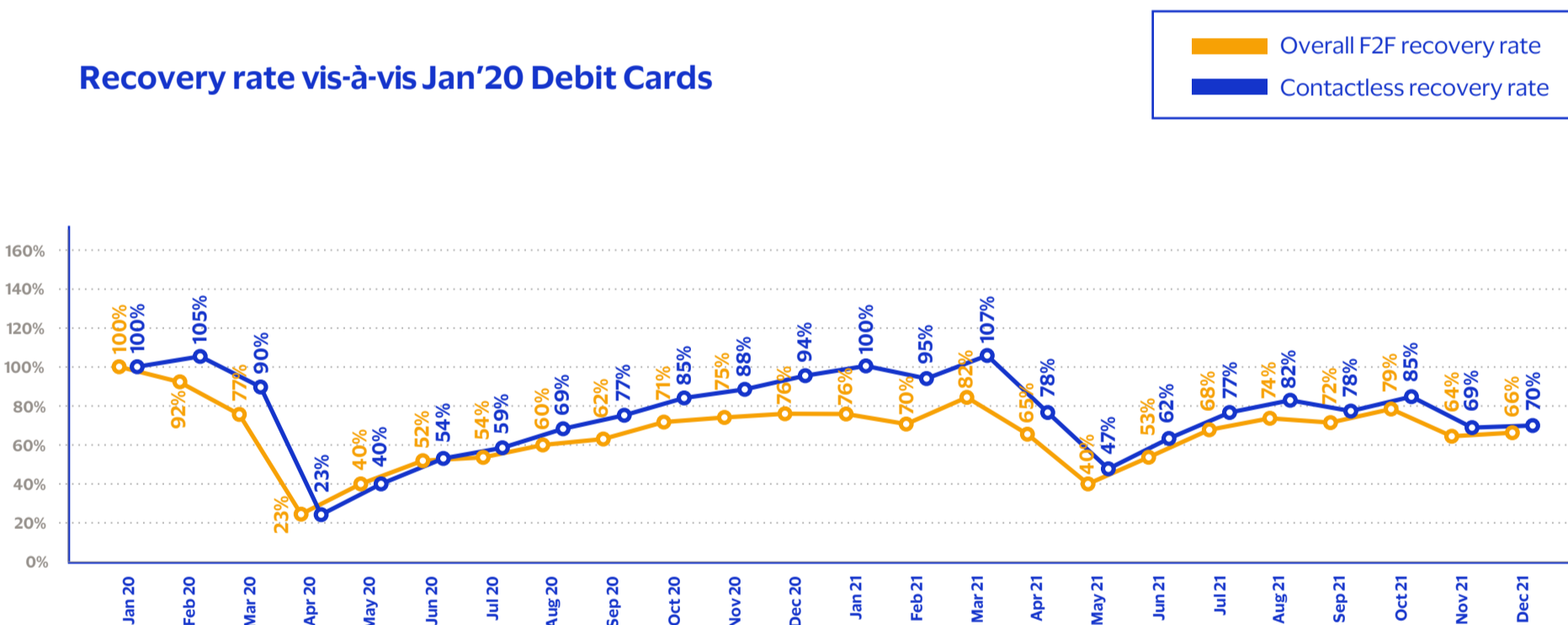


Chart 2: Card usage recovery rate

## The above charts demonstrate:

- Card transactions began to sharply decline with the advent of the pandemic, reaching their lowest in April 2020 (the dip in May 2021 was a little less steep) on account of the total national lockdown when even essential shopping was severely restricted.
- Contactless transactions are clearly recovering at a much faster rate than other F2F transactions.
- By December 2021, contactless transactions were up 35% than in January 2020 for credit cards. And while it is still 30% lower for debit cards, the recovery rate is better than F2F debit transactions during the same period.



# QSR, groceries and pharmacies top the charts

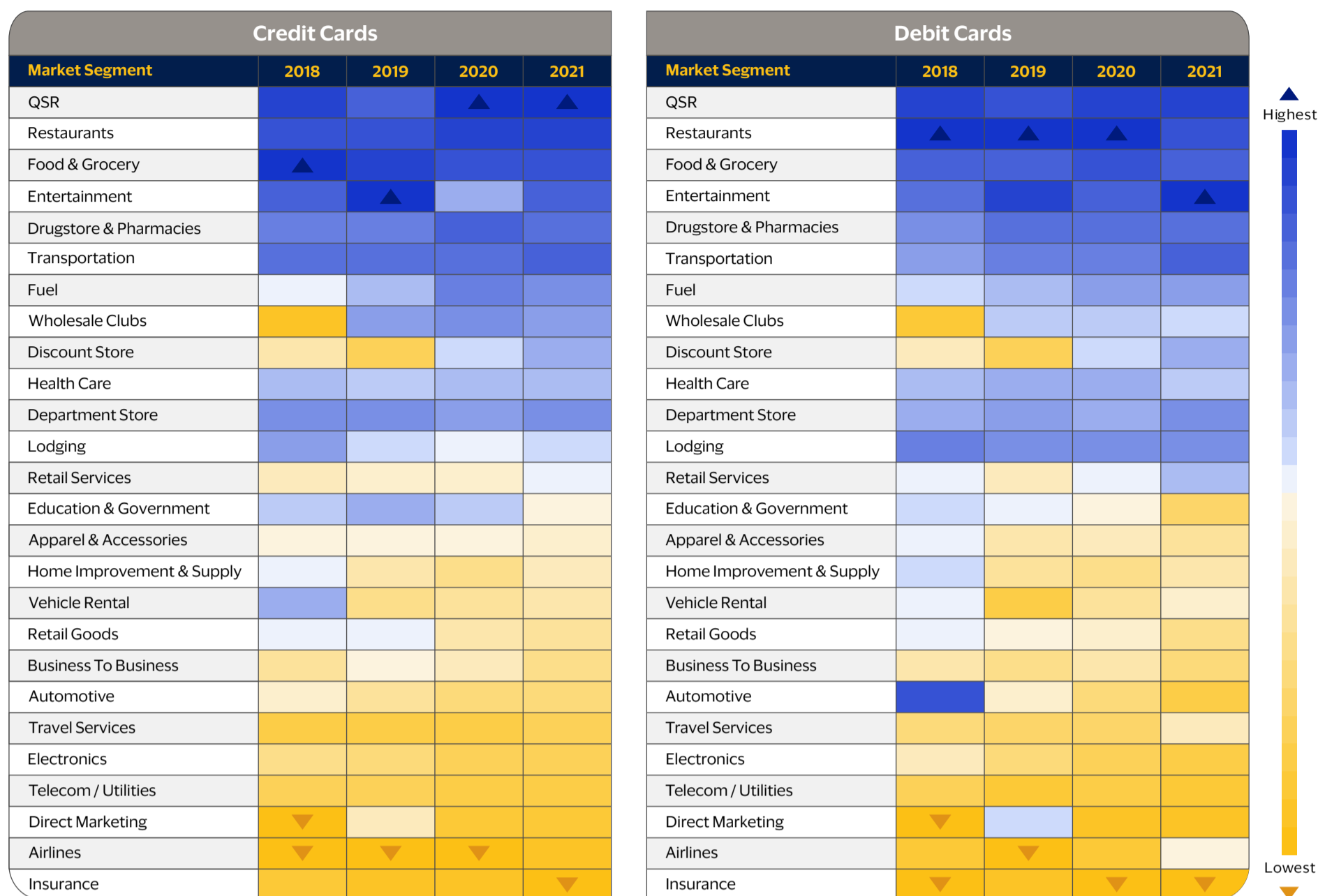


Table 1: Contactless as a % of F2F domestic transaction volumes (by market segment)

The contribution of contactless transactions to total F2F transactions in different market segments clearly shows those impacted positively and negatively by the pandemic. Some key callouts are:

- The market segments with the highest contactless transactions by volume across both debit and credit cards are Quick Service Restaurants (QSRs), other restaurants, food and grocery, and drugstores and pharmacies.
- According to [Worldline](#), while 25% of all transactions at supermarkets were contactless in January 2020, these transactions rose to 31% by January 2022.

- Transportation and discount and department stores have also shown an extremely healthy growth trend across both credit and debit cards in the last year.
- Market segments such as insurance, airlines and telecom/utilities continued to rank lower in 2020 across both credit and debit cards.
- The airlines sector has seen a spike in contactless debit card penetration in 2021, which could be attributed to the revision in the contactless payment limit.



# Affluent consumers lead Contactless adoption

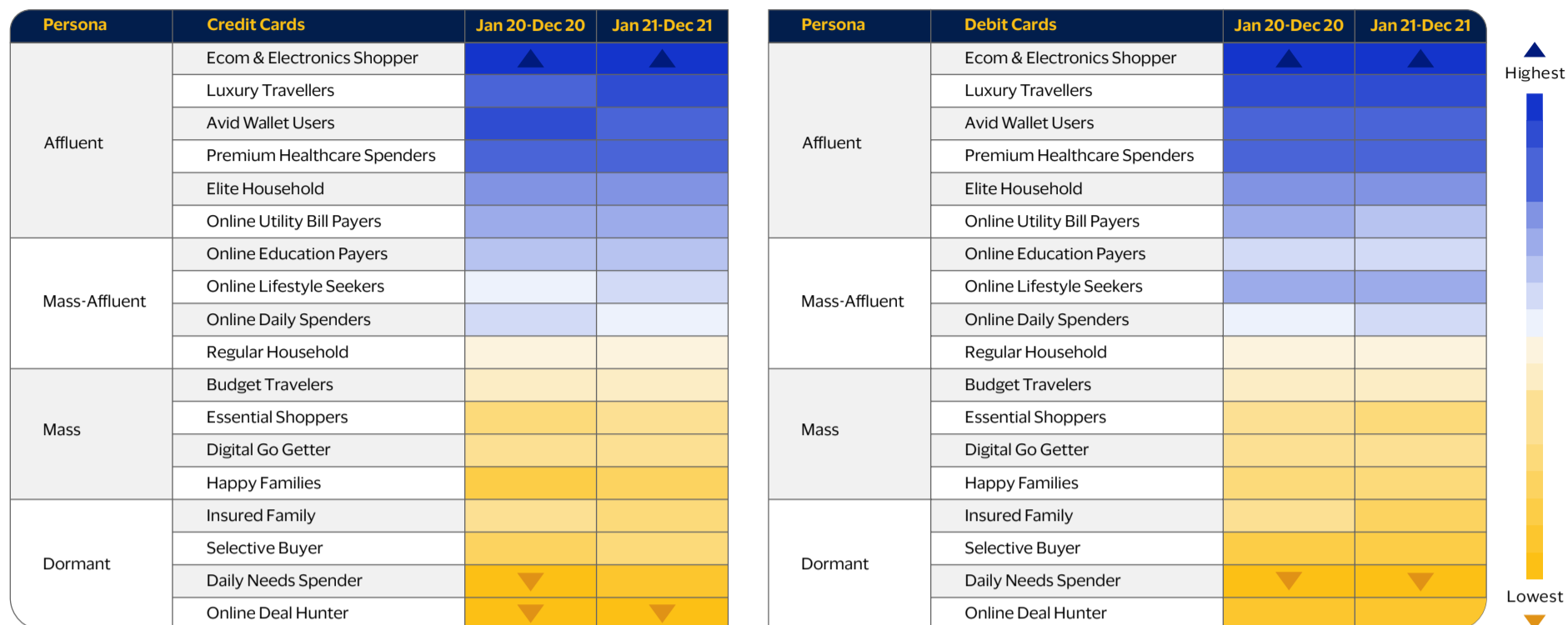


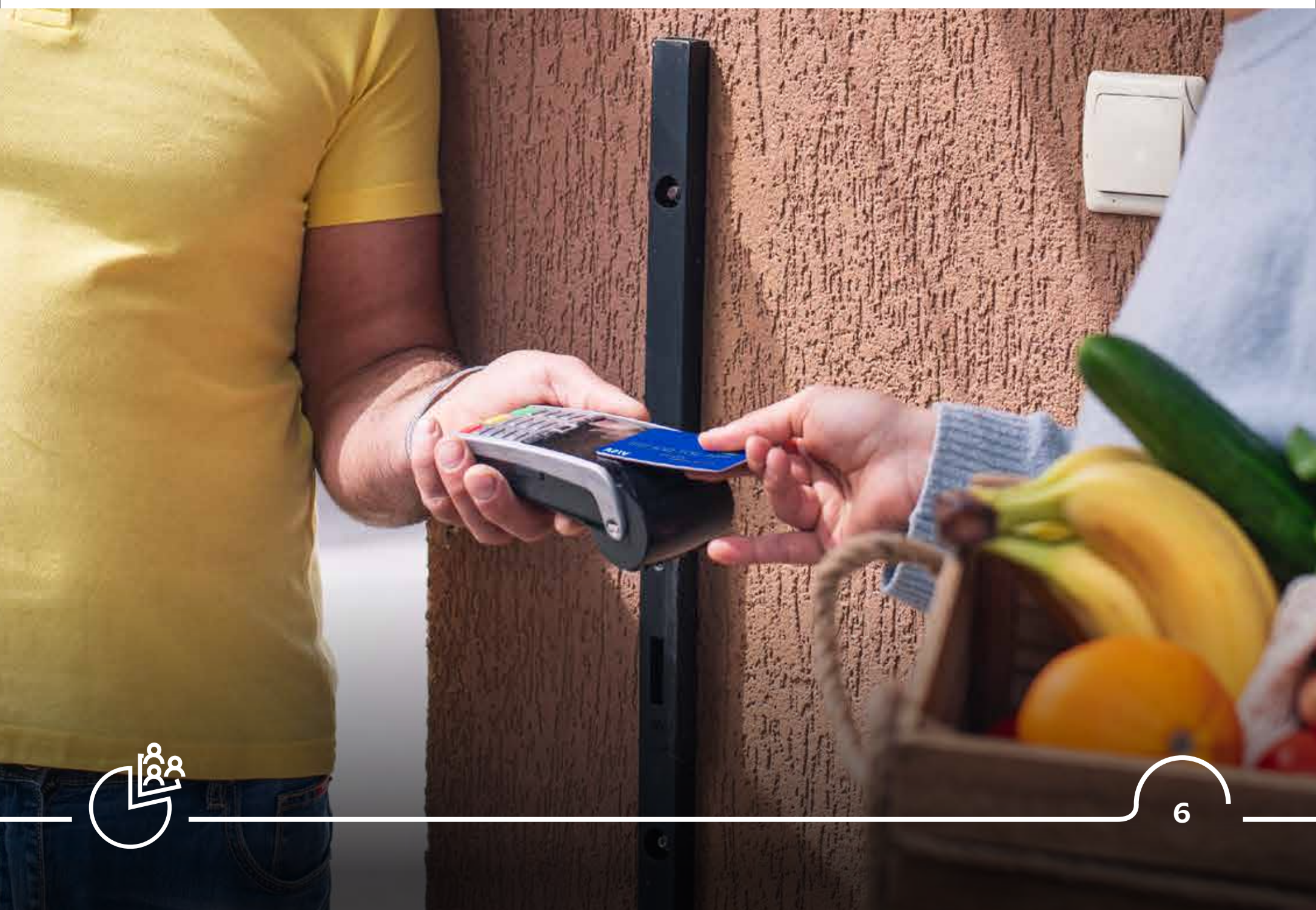
Table 2: Contactless as a % of domestic F2F transaction volumes (by consumer persona segment)

The way consumers shop and use their cards results in distinct cardholder personas with different behaviours. The above table shows which cardholder personas have embraced contactless transactions. Since NFC cards were sequentially issued to these segment clusters, the 'affluent' segment has been the most enthusiastic adopter, followed by the mass affluent segment. It should also be noted that:

- For mass affluent customers, contactless has become a preferred mode of payment especially for daily essentials such as food and grocery, fuel, and drug-stores and pharmacies.

- The enhanced transaction limit that came into effect on January 1, 2021 has helped usage in categories like healthcare, restaurants and apparel and accessories.

There is a higher adoption rate for contactless and card-on-delivery options among affluent cardholders with digital-focused personas, such as ecommerce and electronic shoppers, luxury travellers and avid wallet users, for whom convenience and time are important.



# Contactless payments on the rise across India

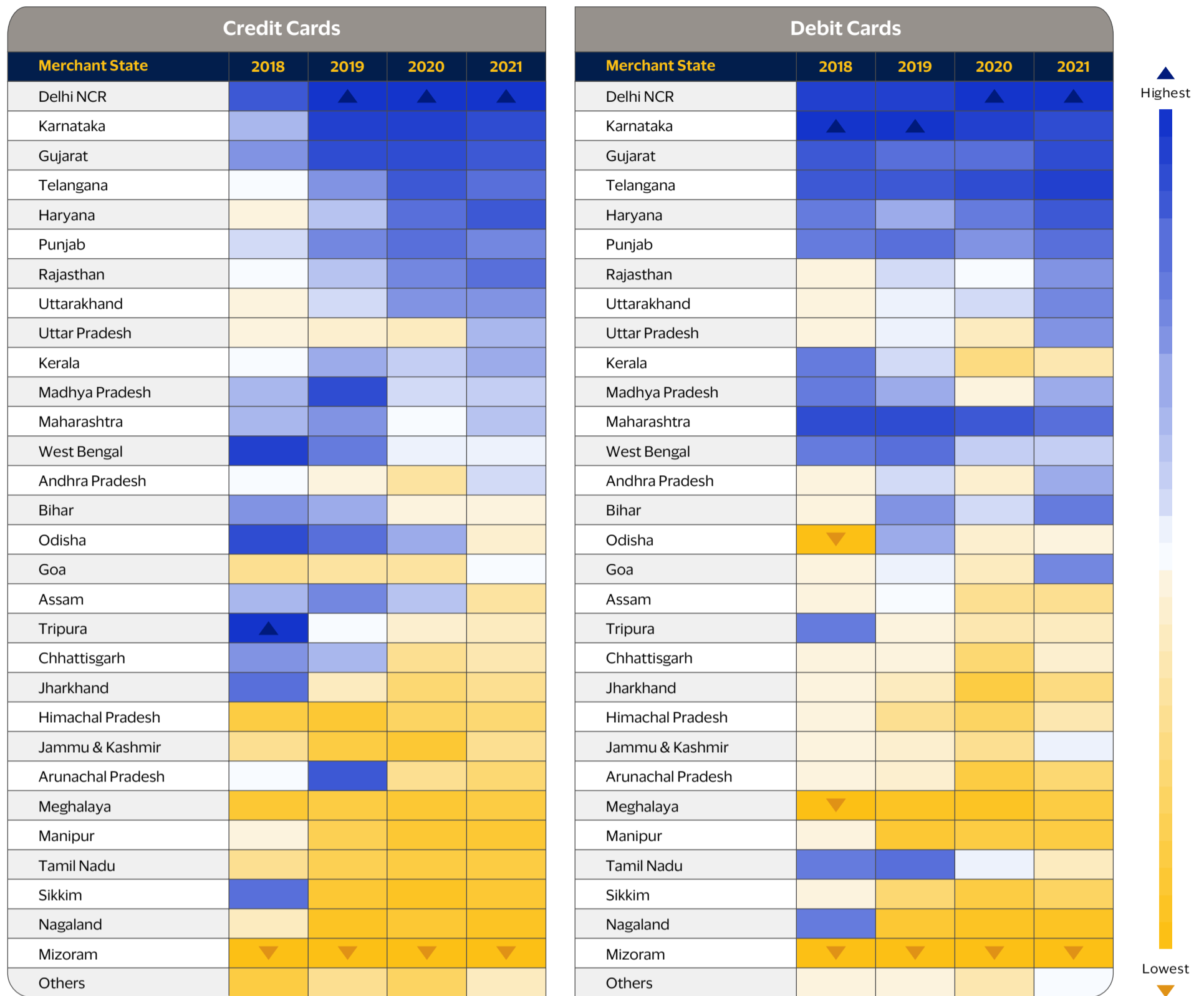


Table 3: Contactless as a % of F2F transaction volumes (by state)

The above table shows the concentration of contactless payments by State from 2018 to 2021. North, West, and South India are at the forefront of today’s contactless revolution, arguably due to higher issuance volumes of debit and credit cards in these regions.

- In 2020 and 2021, Delhi NCR, Karnataka, Gujarat and Telangana had the highest proportion of contactless transactions and penetration, across both debit and credit cards.
- Maharashtra has shown penetration growth across debit and credit outside of the principal metro/metro

areas in those states. This may be due to augmented card issuance and increased penetration of smartphones that accept contactless payments.

The top 10 states with the highest number of contactless transactions were Maharashtra, Karnataka, Delhi NCR, Andhra Pradesh, Telangana, Tamil Nadu, Gujarat, Kerala, Haryana, and Uttar Pradesh.





# Metro cities - frontrunners in Contactless adoption



Table 4: Contactless as a % of F2F transaction volumes (by city/metro area)

Bengaluru, Delhi NCR, Hyderabad, Mumbai and Chennai have the highest number of contactless transactions. As is to be expected, contactless continues to be most widely adopted in the larger Metro areas in India, where there is both wider issuance as well as acceptance in contactless-friendly market segments like food and grocery, QSRs and fuel.

- Contactless (as a % of F2F transactions) has seen sustained growth in usage across - Delhi NCR, Bengaluru, Hyderabad; followed by Ahmedabad, Jaipur and Pune, across credit and debit cards.
- Ahmedabad has seen usage of Contactless credit card gain significant momentum in 2020 and 2021.
- While Maharashtra has grown in contactless penetration as a state, surprisingly, Mumbai sees limited growth.



# Key drivers for Contactless growth

**1 Availability:** The demand for acceptance of contactless payments has been growing. Between January 2020 and December 2021, contactless card issuance grew significantly across banks, compared to earlier. And given the growing influx of first-time contactless users, activation and adoption rates have been on a steady rise, as of December 2021.

An increasing number of small merchants (like grocery and convenience shops) are also enabling 'tap to phone' with payment processors like Worldline and Paytm to accept in-store contactless payments without incurring POS fees.

**2 Convenience:** Once the ease of contactless payments is experienced widely, and merchant acceptance has become ubiquitous, NFC enabled payments may become more prevalent. Visa's research found that in 2020, 50% of all card transactions in Malaysia were contactless, while 73% of respondents in Philippines claimed that they had moved to in-store contactless payments after March 2020.

Since contactless payments do not need a signature, PIN or OTP, the speed of checkout is greatly enhanced, while the associated inconvenience of cash handling, keypad errors and network outages are eliminated.

**3 Utility:** Transaction thresholds and versatility of use can drive utility. The revised transaction limit should also facilitate usage among market segments where sales typically range between INR 2,000 - INR 5,000. Also, as the Indian economy revives, and pandemic restrictions ease, contactless payments may get a fillip from mass transit cards - open loop stored value contactless cards - that are accepted at all compatible point-of-sale terminals.

Fuel, apparel & accessories, lodging, and retail goods will drive the next phase of growth, potentially increasing the share of contactless in F2F transactions.

**4 Security:** The Indian consumer is equally concerned about 'card present' and online ('card not present') fraud. Contactless cards use smart microprocessor chip technology and state-of-the-art encryption methodology to secure a 2-way communication between the acceptance device at point-of-sale and the payment network. An advanced cryptogram eliminates possibilities to clone the cards and prevents theft of credentials.

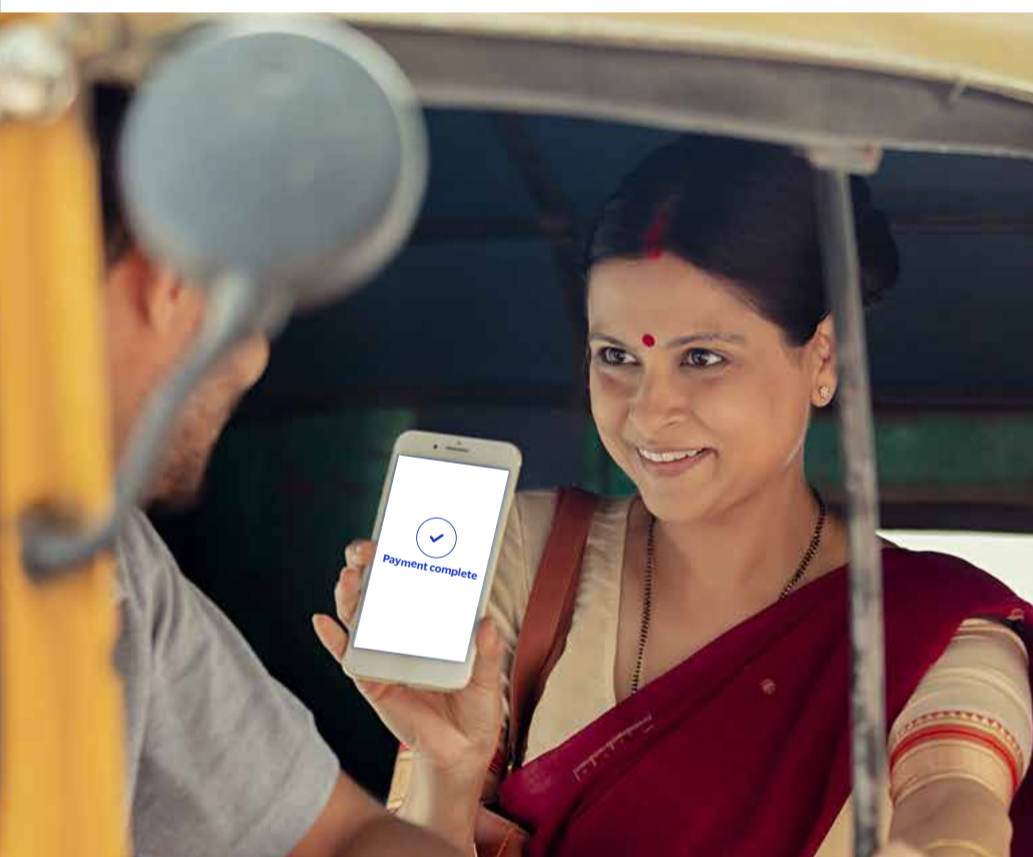
Since RBI caps the maximum number of daily contactless transactions at 5, the exposure to fraud is limited, in case the physical card is lost or stolen. For those issuers and cardholders for whom security is a primary concern, there is probably no safer technology.



# The future is Contactless

As the aforementioned developments across the business, consumer, and regulatory landscapes continue to craft a contactless future of payments, the following trends are anticipated to drive the long-term acceptance and growth of contactless payments in India:

- **Contactless growth reinforces the relevance and prevalence of cards:** Recent RBI bulletin data dated March 2022<sup>6</sup> has shown that while the growth of UPI transactions has continued to grow between January 2021 to December 2021, debit and credit cards have continued to grow with 4.74% in volume and 26.27% in value of transactions as well. In fact, the **Worldline India Digital Payments Report 2021** has shown that while cards contribute to 26% of all digital transactions, they generate 53% of the value of all digital commerce. As consumers and merchants look for more convenient and secure payment solutions at point-of-sale, contactless cards are likely to grow more significantly.



- **Low-ticket contactless payments will fuel high non-metro acceptance:**

The **Worldline Report** shows that coupled with the drive to establish acceptance in non-metro areas, it is highly likely that contactless cards—which are accepted as asset-light infrastructure now—will be a driver of digital payments growth in general; and in the aforementioned segments in particular across Tier-2 and Tier-3 cities.

Grocery, fuel stations, restaurants and QSRs are among the leading market segments for card spend, contributing 80% of the volume and 60% of the value of all card transactions.

- **Fintech expansion will drive contactless inclusion beyond metro borders:** With the formal announcement on September 3, 2021, of a financial account aggregator model, that would enable an open data-sharing platform – predicated on consumer consent – the need to collect, share and action transactional data in near-real time will become critical. A convenient technology like NFC, with its ability to facilitate seamless transactions that may be linked to small-ticket POS lending and loyalty program redemption, will likely be an integral part of this revolution.
- **Persistent policy efforts will boost adoption and ubiquity for contactless:** As consumers become accustomed to providing data consent to financial institutions and financial intermediaries, they are more likely to set individual spend limits with regard to both the value and type of transactions. With this, a far nimbler event-based risk methodology (based on cardholder choice, market segment and merchant code, sequence of transactions, etc.) may replace the existing rule-based risk framework (based on a rigid daily volume and transaction limit), facilitating a larger volume of transactions that will expand the utility and scope of contactless payments. Along with tokenisation – encrypted codes that replace and protect the actual account number, online and in-device, respectively – contactless payments may well become the default payment method for in-store and F2F peer-to-peer transactions.

<sup>6</sup>Source: RBI Bulletin March 2022



**VISA**