

INSTANT PAYMENTS AND MERCHANTS— PRICING POLICY CONSIDERATIONS

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CONTENTS

Executive summary	1
Introduction	3
Merchant pricing, interchange, and the legacy of cards	4
Instant merchant payments, what's different?	6
Understanding merchant pricing policy for instant payments	11
Advice for scaling instant, interoperable merchant payments	19
References	22

EXECUTIVE SUMMARY

INSTANT PAYMENT SYSTEMS HAVE expanded rapidly across the world, often launching with a focus on person-to-person (P2P) payments. An increasing number of these systems are now also expanding to include support for merchant transactions. However, the economics of merchant payments are more complex due to the differing incentives of merchants and customers, making the development of scheme rules less straightforward.

Historically, card schemes gained scale through a system of merchant fees and customer incentives. This approach of charging the merchant and rewarding the customer was enabled by fee-sharing between financial institutions (interchange). However, schemes and regulators are taking a different approach to pricing for instant payments. They are rewriting the script by eliminating interchange (e.g., Brazil, Singapore), setting market-level fee structures (Jordan), or even eliminating fees altogether (India, Mexico).

This technical note helps explain why these changes are occurring, assesses their impact on market development, and offers suggestions for the path forward. We find that while pricing intervention for cards has historically been primarily a remedy for competition, when it comes to instant payments, schemes and regulators are increasingly using pricing intervention as a market-building tool.

Lower issuing and acquiring costs mean that the elimination of interchange—common in emerging models for instant merchant payments—is likely a pragmatic step. Interchange can set a price floor for instant payment transactions and limit business model innovation. However, the report also finds that fee caps/prohibitions should be viewed with caution. They similarly constrain business models, driving strategies built on adjacencies like credit, impacting competition and potentially distorting markets.

For schemes/regulators looking to help scale instant merchant payments, leaving out interchange and letting competitive markets determine pricing is likely the best solution. But as always context matters, and market fundamentals should be weighed when choosing a course of action. Pricing policies may limit the development of certain revenue models, as summarized in Table 1.

The report finds that tools beyond pricing intervention should be considered in promoting low-cost transactions. Subsidies and incentives for adoption can help balance the economics for merchants where a business case for acquiring does not otherwise exist. Enablers such as tiered due diligence and digital onboarding of merchants can also further reduce acquiring costs and put downward pressure on fees.

Disclaimer

Pricing models and policies are subject to change over time. The models and policies reflected in this publication are based on data as of January 2023. The data and examples referenced throughout the publication should be taken to reflect market conditions at this point in time.

TABLE 1: **Suitability of Common Policy Approaches for Different Merchant Payment Revenue Models**

Scheme/regulator policies for interoperable instant merchant payments			
Provider revenue model for merchant payments	Traditional card model: <ul style="list-style-type: none"> Merchant fee permitted Interchange applied No customer fee permitted <i>(e.g., Visa, Mastercard)</i>	IPS merchant fee model: <ul style="list-style-type: none"> Merchant fee permitted No interchange applied No customer fee permitted <i>(e.g., Pix Brazil, Duitnow Malaysia)</i>	IPS no merchant fee model: <ul style="list-style-type: none"> No Merchant fee allowed No interchange applied No customer fee permitted <i>(e.g., UPI India, CoDi Mexico)</i>
Neither merchant nor customer pay transaction fee (revenue through adjacency) <i>(e.g., Google Pay, India)</i>	❌ Problematic	✅ Suitable	✅ Suitable
Customer pays transaction fee, no merchant fee <i>(e.g., MoMoPay in Ghana)</i>	❌ Problematic	❌ Problematic	❌ Problematic
Either customer or merchant may pay transaction fee <i>(e.g., M-PESA in Kenya)</i>	⚡ Possible	⚡ Possible	❌ Problematic
Only the merchant pays transaction fee <i>(e.g., Alipay in China)</i>	⚡ Possible	✅ Suitable	❌ Problematic
Only the merchant pays transaction fee, customer gets rewards <i>(e.g., FavePay, Singapore)</i>	✅ Suitable	⚡ Possible	❌ Problematic

INTRODUCTION

INSTANT PAYMENT SYSTEMS—ALSO known as fast, immediate, or rapid payment systems—facilitate the types of small-value, mobile payments most frequently used by low-income customers. These systems offer continuous, real-time availability, allowing for transactions between providers to be completed within seconds at any time of the day or night.

Many instant payment systems begin by supporting person-to-person (P2P) transactions between account providers. However, an increasing number of these systems—such as the Unified Payments Interface (UPI) in India, or Pix in Brazil—also support digital merchant payments. Merchant payments are more difficult to scale because, unlike P2P, senders and receivers have different needs, incentives, and reasons for using the product (CGAP 2019).

The best examples of merchant payments at scale remain the international card schemes—companies like Visa and Mastercard. Over a period of decades, these schemes drove adoption through a pricing model that charged merchants, provided a financial incentive to acquiring and issuing banks, and often incentivized customers through rewards. In short, the schemes bet that customers held the power to direct transactions, and they were largely proven correct.

However, the schemes and regulators overseeing instant payment systems are increasingly taking a different approach to pricing for merchant payments. Countries like India, Jordan, Mexico and Brazil are eliminating interchange, capping fees, or eliminating fees all together.

Why does pricing policy for instant merchant payments look so different than the models that allowed card systems to scale over the past seventy years? What approaches are working, and which aren't?

This technical note attempts to answer these questions, providing advice for the instant payment scheme or regulator hoping to scale merchant transactions. The note builds on the CGAP technical guide *Building Faster Better: A Guide to Inclusive Instant Payment Systems* (Cook, Lennox and Sbeih 2021).

MERCHANT PRICING, INTERCHANGE, AND THE LEGACY OF CARDS

SINCE THE EARLIEST CREDIT AND debit cards in the 1950s, card schemes like Visa and Mastercard have built their pricing models on the belief that customers hold the power in a merchant transaction. In aggregate, these customers were believed to have the power, through spending decisions, to influence which forms of payment a merchant would choose to accept.

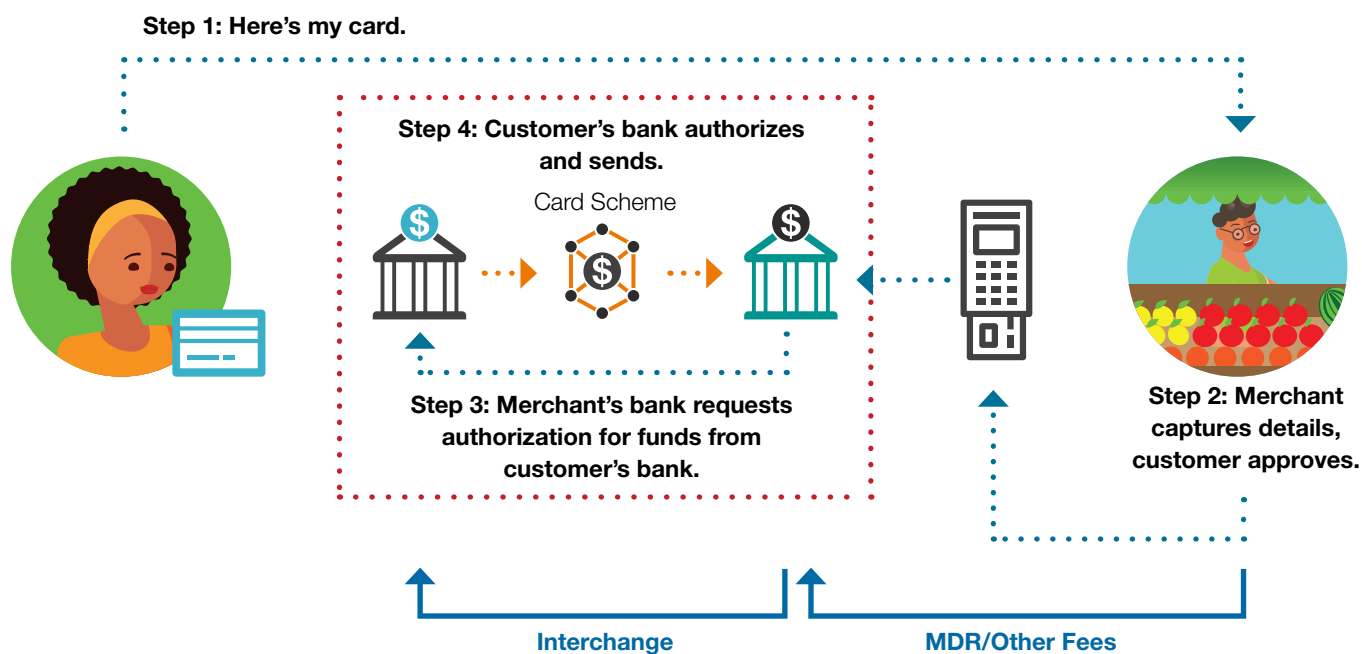
As a result, card schemes focused on incentivizing the customer, while charging the merchant. Customers were given free transactions, and over time, additional incentives such as rewards points. The costs of card issuance and customer rewards were recovered through

interchange (the fee between acquirer and issuer), and ultimately built into the merchant fee. The international card schemes initially calculated interchange on a cost recovery basis based on factors like operational costs and fraud risk.

Acquiring banks based their merchant fees on the cost of interchange, along with the cost of servicing the merchant (e.g., placing expensive acceptance technology at a merchant location).

The growth strategy adopted by the card schemes – incentivize the customer, charge the merchant – was largely proven correct over successive decades. Brands

FIGURE 1: **Merchant Discount Rate (MDR)/interchange model for card acceptance**



like Visa and Mastercard gained traction globally. More expensive cards to issue (those platinum, premium reward cards carried by the wealthy) carried higher interchange rates and drove higher fees for the merchant.

Rules were set in place to prevent merchants from discriminating against those more expensive cards, and from directly passing on costs to customers—so-called honor-all-cards and anti-surcharging rules. Merchants were asked to decide whether the cost of acceptance (paying the merchant fee) was outweighed by the cost of not accepting cards from a particular scheme (losing customers to another merchant).

As a result, interchange became critical to maximizing transaction volumes. If interchange was too low, incentives for issuing banks to print, distribute, and promote cards among customers might not be enough. If interchange was too high, acquirers risked merchants opting out of the arrangement entirely.

In the late 2000s, following a series of competition-related lawsuits, the global card schemes became publicly listed companies (MasterCard in 2006 and Visa in 2008), and began managing interchange independently from the scheme's participants (Plaitakis 2019). Over this time, interchange also became used as a competitive tool between card schemes.

Although it is counter-intuitive, competition between these private schemes can actually drive merchant prices higher. Schemes seek to attract the highest volume portfolios (i.e., largest card issuers) to their networks, and as a result they may compete on the incentive (i.e., interchange) that they can provide to issuing banks. A higher interchange means the acquirer is paying more, leading to higher merchant fees.

In a number of markets, competition between card schemes began to have exactly this effect – driving up interchange rates and merchant prices. However, the global prominence of card networks had increased by this time as well (at least for large merchants in wealthy countries). So as prices for merchants rose, so did the cost of walking away from card acceptance.

Competition between card schemes was also found to put pressure on domestic schemes with “lower or no interchange fees,” forcing them out of the market where they were unable to match the large interchange fees set by the international schemes (EU Regulation 2015/751).

All of this caused regulators to begin intervening in the setting of interchange rates, and in some cases merchant fees, for card acceptance. In Europe, both Visa and Mastercard reached agreements with the European Commission to reduce cross-border interchange fees for debit and credit cards in 2009-2010, and regulation came into force in 2015 capping interchange rates (EU Regulation 2015/751). Other markets followed a similar path with card pricing regulation.¹

Some evidence suggests that these caps led to positive results in terms of increasing merchant acceptance, consumer adoption and transaction volumes (Valverde, Chakravorti and Fernández 2016; Ardizzi and Savini Zangrandi 2018). However, evidence is mixed globally. In the US, the Dodd-Frank Act and Durbin amendment significantly reduced interchange fees for debit cards, yet evidence suggests that issuing banks increased other customer charges to compensate for lower interchange and that this even led to increased financial exclusion (Mukharlyamov and Sarin 2019; Manuszak and Wozniak 2017).

It is important to remember that these caps were also introduced at a time when card schemes had already achieved significant, global network effects. Decades of marketing and global acceptance had already taken hold, along with an entire ecosystem of card reward programs that would be difficult for issuing banks to abandon.

All of this leads to some important questions for instant payment systems looking to incorporate and scale merchant transactions. What lessons are transferable from the card story and which are not? Should the basic principle of ‘incentivize the customer, charge the merchant’ change with instant payments? How are the needs of instant payment models different from cards?

¹ By 2015, several countries had introduced card pricing regulation: China (2002), Australia (2003), Venezuela (2009), the US (2011), India (2012) and South Africa (2014).

INSTANT MERCHANT PAYMENTS, WHAT'S DIFFERENT?

THE DISCUSSION OF PRICING

policy for instant merchant payments builds on nearly 70 years of evolution in card pricing. Regulators and scheme managers are looking to what has worked, and what hasn't, in the card world. However, today's instant payment systems are also different in some important ways.

Less competition between schemes

While international card schemes are managed by for-profit corporations, most of today's instant payment systems are managed by public/private utilities at the national level (e.g., PPMI in the Philippines, NPPA in Australia, SCHA in Singapore), or even directly by the country's financial regulator (State Bank of Pakistan in Pakistan, Banco Central do Brasil in Brazil) (Cook, Lennox and Sbeih 2021).

Private/for-profit schemes like Visa and Mastercard continue to signal an interest in the space, but products like mVisa and MasterPass remain limited in adoption. In some cases, regulators have acted to protect instant payments as a public utility. For example, Mowali, a joint venture between MTN and Orange to provide instant payments interoperability, did not initially qualify to offer their services within the West African region. The region's regulator is simultaneously in the process of developing a regional instant payment system.

There is a trend toward less competition between schemes at the country level, as well as more direct involvement by regulators in decision making and operation. As a result, the potential impact of competition between schemes on interchange rates (and therefore merchant fees) appears lower. This signals that the types of regulatory pricing interventions seen in the card world—those aimed at reducing the pricing impact of scheme competition—are less relevant for instant payments.

Lower cost of issuing

Historically, issuance meant getting a piece of plastic (the card) into the customer's hand, and then encouraging them to use it. The cost of issuance included the expense of printing and mailing the card, but also the rewards programs needed to encourage use.

Instant payments are typically mobile transactions, meaning that the direct (variable) costs of card issuance are replaced by the lower fixed costs of managing digital channels. The expensive rewards programs offered by banks are also largely absent in digital channels.²

However, some of the largest wallet providers have started to experiment with incentives: Google Pay in India launched several games with financial prizes randomly rewarding users making payments on the app, including 'Go India' in 2020 with tickets to visit the country's major cities (Ahmed 2020).

² Where rewards exist in digital channels (e.g., Brazil, Singapore), they are largely limited to on-net transactions.

The nature of instant payments themselves also reduces cost of issuing. As a real-time and often irrevocable form of payment, costs associated with managing fraud risk, credit risk, and funding periods can be reduced or even eliminated.

Lower cost of acquiring

The costs of acquiring merchants for instant payment acceptance have been reduced as well. While card technology historically involved expensive devices placed with the merchant, digital has opened cheaper solutions such as till numbers for payment over USSD or smartphone-based QR codes.

An increasing number of merchant acquirers are reducing costs through tools like remote onboarding. Acquirers like BharatPe in India, Grab in Singapore, JazzCash in Pakistan and PayMaya in the Philippines allow self-registration for the merchant to print their own QR sticker for payment acceptance. These merchants are also

often benefiting from tiered KYC, especially for small merchants, demonstrating a convergence between the concepts of consumer and merchant accounts.

And as with issuing, the nature of instant payment systems has also reduced costs relative to cards. Merchants receive their money more quickly, and the financial institution takes on less risk in the transaction.

Higher price sensitivity for merchants

Instant payment systems are much younger than their card counterparts. The brands supporting these services are less likely to be household names, and the services less likely to be considered a “must-have” for a merchant. While large merchants may find it damaging to turn off Visa or Mastercard as prices rise, the same merchants may be more willing to put their QR sticker in a drawer if fees

TABLE 2: **Comparing pricing impacts between card and instant payment systems**

Payments attribute	International card schemes	Instant Payment Systems	The effect on pricing for instant payments
Actor type/ market position	Private, for-profit with competition	Often not-for-profit without competition (market level utility)	Less competition between schemes (decreased upward pressure on interchange)
Cost of issuing	Includes printing and distributing cards; funding reward programs	More likely limited to costs of maintaining digital channels	Lower cost of issuing for participants
Issuing services	Often include reversals and coverage for fraud	Often irrevocable, but may include new costs for e.g., directory services	
Cost of acquiring	Expensive Point of sale devices	Cheaper phone-based solutions like QR/USSD	Lower cost of acquiring for participants
Acquiring services	Often in-person service, significant support	Increasingly remote, self-service	
Target market	Larger, more profitable merchants with willingness to absorb costs of POS device and accept deferred funds availability	Wider range of merchants with low-cost channels and instant funds availability	Higher price sensitivity of merchants
Stage of development	Mature, ‘must-have’	Early stage, ‘growth’	

rise. Instant payments are still in a growth phase, which means even large merchants may be more price sensitive.

But perhaps more importantly, instant payment systems often target a class of merchants that are smaller and less formal and work with smaller margins compared to traditional (wealthier) card-accepting merchants. Lower costs of acquiring and issuing, along with instant availability of funds, have made it possible to reach smaller merchants, opening new markets to acquirers.

Implications for merchant pricing models

For instant payments, there is a wider variety of merchant pricing models in practice as compared to cards. Merchant fees are common, but models also exist that charge the customer, charge both the merchant and customer, or even carry no transaction fee at all.

As documented by the IFC, many small merchants are still willing to pay for transactions, and merchant fees can remain an important tool in acquiring small merchants (IFC 2016). However, even incremental changes in fee structures can have substantial impacts for small, often informal, businesses. In 2017, Safaricom reduced charges to merchants on its Lipa Na M-PESA platform by 50%, and nearly doubled its network, adding around fifty thousand new merchants (Safaricom 2018).

Noticing trends in informal commerce using P2P rails with customer fees, financial institutions in developing markets have also adapted pricing strategies to better match market realities, charging customer fees for some merchant transactions.

Examples of customer-pays merchant products include Pochi La Biashara from Safaricom in Kenya and MoMoPay from MTN in Ghana. Some instant payment systems have also taken steps to formalize these models within interoperable arrangements. In India, NPCI introduced in 2019 a P2PM use case for merchant transactions below 50,000 INR per month, with an identical pricing structure as for P2P transactions (NPCI 2019a).

Lower income customers may be just as price sensitive as small merchants, but lower transaction values can also make the cost of a customer fee less material on an absolute basis. Where alternatives are comparatively expensive (such as paying for cash withdrawal at an agent), a customer may be more willing to pay a transaction fee than a small (and margin-constrained) merchant.

Business models and strategic interests also matter. Non-bank e-money issuers, such as Africa's mobile money providers, are often not able to earn interest on customer float, and so transaction fees remain a key part of the revenue model. Banks earn interest on customer float, but often have acquiring structures in place that are dependent on fee-based acquiring (e.g., ground teams and extensive, paper-based KYC).

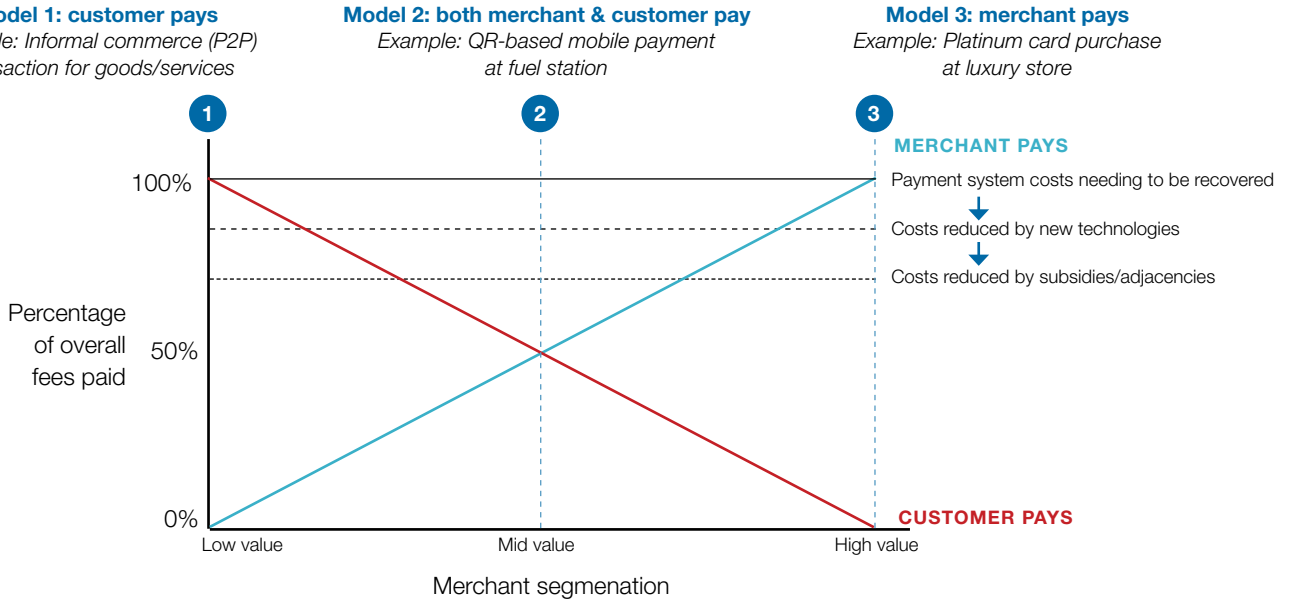
Other entities, such as technology companies with lower fixed cost invested in distribution infrastructure, are looking toward freemium models. They reduce acquiring costs to the bare minimum using remote onboarding and self-print QR, then bank on a subsequent payoff from monetizing data through advertising or credit.

These models share a general principle—that revenue recovered (now or later) from the merchant (or customer) will exceed the investment made in acquiring the merchant. If it doesn't, there is no reason for the business to continue. Figure 2 illustrates how all these factors come together in the context of a merchant's willingness to pay.

Costs can be reduced over time with the introduction of new technologies, subsidies, or future revenue streams, but remaining costs need to be recovered from either the merchant or customer.

As willingness to pay shifts between merchant and customer, this has an impact on where fees can be applied (Figure 3).

FIGURE 2: Merchant segmentation and willingness to pay



A wide range of models are available as illustrated in Figure 3 below, while Table 3 provides examples of pricing models seen in practice and the indicative balance of who pays the fees.

FIGURE 3: Balancing incentives in determining who to charge

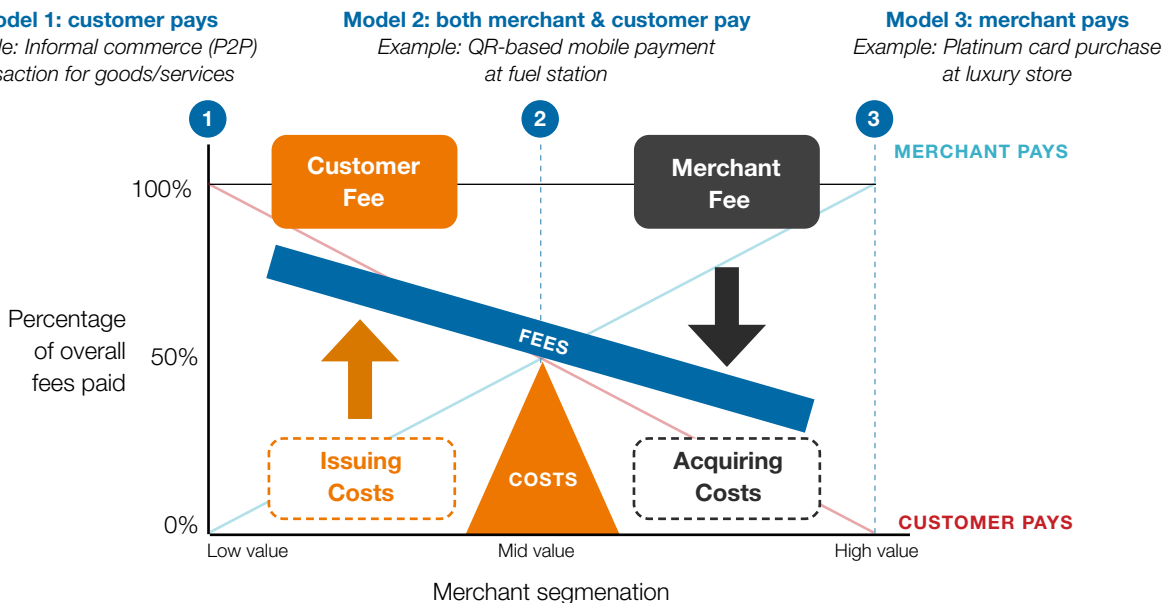
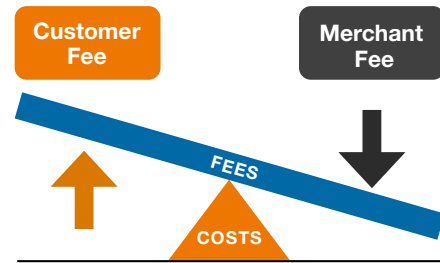


TABLE 3: **Examples of merchant pricing models for instant payments**

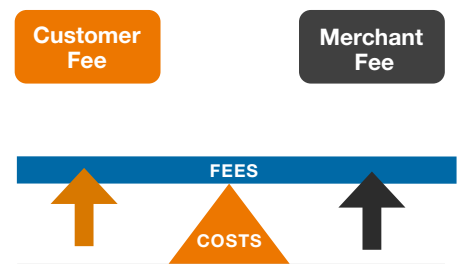
Only the customer pays

Some models apply fees only to the customer in a merchant transaction (e.g., MoMoPay from MTN in Ghana). This model is also observed through the informal commerce that often composes a substantial volume of P2P transactions. It is the most common where merchants are viewed as price sensitive, and transaction values are small.



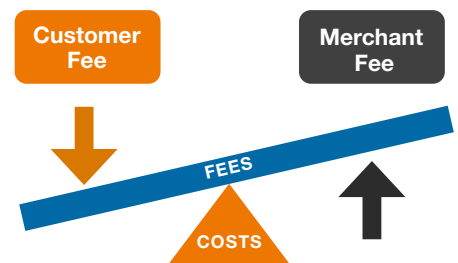
Either/both customer and merchant pay

Acquirers in some markets have developed hybrid arrangements where either (or both) merchant and customer are charged a fee. While charging both customer and merchant is certainly less common, it has been observed in scenarios where neither merchant nor customer is willing to pay a fee sufficient to cover acquiring cost. For example, fuel stations acquired by mobile money products in countries such as Tanzania.



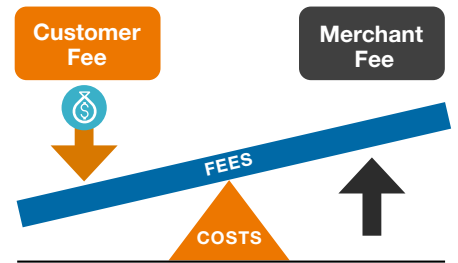
Only the merchant pays

Closer to the traditional card acquiring model, some models charge the merchant a fee (often less than card pricing), and offer the customer free transactions. An example is Alipay in China.



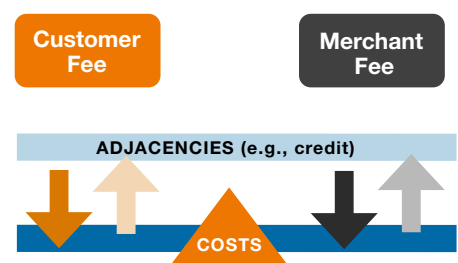
Only the merchant pays, and the customer earns rewards

Closest to the traditional card model, some products charge the merchant while providing incentives to the customer. This is less common for instant payments, but examples do exist. FavePay in Singapore charges a higher merchant fee for merchants who participate in cash-back reward programs for customers.



Neither pay (revenue through adjacencies)

In these cases, neither the merchant nor the customer pays a fee. The issuer and acquirer bear the cost of the payment with the intention of recovering costs through adjacencies such as lending or advertising. The model is most common among large technology companies without significant spend on in-person acquiring, such as Google Pay in India.



UNDERSTANDING MERCHANT PRICING POLICY FOR INSTANT PAYMENTS

THROUGHOUT THE HISTORY OF card acceptance, market roles were reasonably clear: the scheme set interchange, acquirers set merchant fees, and regulators performed oversight, intervening in response to market conduct and competition issues. However, the role of the regulator has become more complex with instant payments.

Regulators often play a larger role in decision making for instant payment systems, with regulators co-owning schemes, retaining seats on boards, or participating in the associations that manage rule writing. Systems like Pix in Brazil and SPEI/CoDi in Mexico are directly owned/operated by the regulator, with scheme rules published as regulation.

Even in markets with no direct public sector control of the scheme, such as in India, the government has shown a willingness to direct the course of pricing policy at the scheme level. As a result, the lines between regulator and scheme, and therefore regulation and scheme rules, are becoming increasingly blurred.

One consistent feature of today's instant payment systems is that they are taking radically new approaches to merchant pricing policy (see Table 4). In Brazil, merchant fees are permitted³, but interchange is prohibited by scheme rules, published by the central bank as regulation (Resolução BCB No 1 de 12/8/2020, Article 96). In

Jordan, the scheme (co-owned by the regulator) set a fixed 1% Merchant Discount Rate (MDR) for the market with no interchange. For UPI in India and CoDi in Mexico, the government and regulator (respectively) have set full pricing prohibitions for the scheme.

So why, after decades of an arguably successful approach of merchant fees and interchange in card schemes are markets taking a different approach for instant payments?

Rethinking the role of interchange

Interchange for instant merchant payments can serve as an unnecessary constraint on business model innovation, especially where customer incentives are less needed and merchants are more price sensitive than in the case of cards.

Interchange helps fund issuance costs in the card world, but it also sets a price floor. Because the acquirer needs to pay interchange to the issuer, some level of merchant fee is required to avoid a loss on each transaction. This is not necessarily a problem for card schemes, as higher issuance and acquiring costs mostly mean that services are anyway offered to higher value merchants where such fees can be absorbed.

³ Fees are permitted for P2B yet P2P are free of charge, according to Resolução BCB No 19 de 1/10/2020, <https://www.in.gov.br/en/web/dou/-/resolucao-bcb-n-19-de-1-de-outubro-de-2020-280799858>

A price floor for acquiring becomes more problematic for instant payment systems serving smaller, more price-sensitive merchants, by limiting business model innovations. Where acquirers are required to pay interchange on each transaction, there is less room to experiment with the types of low/no fee products enabled by tools like self-print QR and remote onboarding. Interchange means merchant fees, and merchant fees mean no freemium models.

For customers, the uptake challenge (and need for incentive) is also smaller for instant payments. Mobile channels are often already understood by customers through use cases like P2P, especially in emerging markets where mobile products have gained traction.

Challenging merchant fees

As shown in Table 4, some instant payment systems are also taking a more aggressive approach to pricing. Markets like India and Mexico have pursued full pricing prohibitions on merchant transactions.

In contrast to the historical role of pricing intervention (as a competition/market conduct tool), these policies are being applied with the goal of market-building for digital transactions. There is a sense that instant payments are a “cash-like” form of payment, and that the fee structures should more closely emulate cash.

Costs have indeed been reduced in the system, but new policies reducing or eliminating the merchant fees permitted in the market have also created a tension between the goals of maximizing use (through low end-user fees) and incentivizing acquiring (through sustainable business models).

Other markets like Singapore have left merchant fees in place, but launched incentive programs aimed at driving digital merchant acquiring to small, informal merchants. A campaign called “Hawkers Go Digital” funded by the government of Singapore includes a 0.5% reimbursement of merchant fees (paid to the acquirer) and a bonus of SGD 1,500 (~US\$1,100, paid to the merchant) for performing at least 20 transactions a month for a fixed period of time. By 2021, the reimbursement program had enrolled half of Singapore’s small ‘hawker’ merchants (i.e., merchants that sell food) (Dayani 2021).

Catering to customer fees through alternative use cases

The landscape for merchant fees and interchange has changed dramatically from cards to instant payments, but one principle seems to have transferred over—a lack of customer fees. Whether merchant fees are permitted or not, customer fees generally continue to be disallowed through policy or scheme rules for formal merchant transactions.

TABLE 4: **Examples of IPS merchant payment pricing policies**

Country / Scheme	Customer fee	MDR	Interchange
Jordan / CliQ	Prohibited (scheme rule)	1% MDR (scheme rule)	No interchange set
India / UPI ^a	Prohibited (government policy)	Prohibited (government policy)	No interchange set
Brazil / Pix	Prohibited (scheme/regulator rule)	Not restricted	No interchange set
Mexico / CoDi	Prohibited (scheme/regulator rule)	Prohibited (scheme/regulator rule)	No interchange set
Singapore / PayNow	Prohibited (scheme rule)	Allowed, but waived by most banks	No interchange set
Malaysia / DuitNow	Prohibited (scheme rule)	Allowed, but waived by most banks	No interchange set

a By early 2023, signs emerged that pricing policies for UPI transactions were likely to shift again, re-introducing merchant fees for some larger value transactions.

However, so-called P2PM use cases have been developed in some markets (such as India) to cater to the smallest classes of merchants not willing to pay merchant fees. Bill payment use cases (applying customer rather than merchant pricing) are also being used increasingly by small merchants, not only bill collectors as traditionally defined. Finally, it is worth remembering that many P2P

transactions moving through instant payment systems are themselves informal commercial transactions.

In all these ways, ranging from the formal to semi-formal to informal, customer fees for merchant transactions are finding a home in today's instant payment systems.

Box 1. India and merchant pricing policy: a short and complicated history

Today, both merchant and customer fees for India's largest domestic schemes (the RuPay debit card and UPI instant payments) are formally prohibited by the government. The move has been considered contentious and the story is still evolving, but the past decade of India's experience in reaching this point is equally informative.

In 2012, the Reserve Bank of India (RBI) took action to encourage the use of debit cards, capping merchant fees to between .75 and 1% (RBI 2012). By 2016, the government joined the RBI in promoting digital payments, launching a scheme to reimburse merchant fees for payments made to the government, if these payments were below Rs. 100,000 (~US\$1,300) and were made using a debit card (India Ministry of Finance 2016, 2017).

However, innovation in payments was also expanding the available channels over this time, and it soon became clear that a one-size fits all policy did not work. In 2017, the RBI's guidance for debit cards was revised to differentiate between small merchants (less than ~US\$27,000 in annual sales) and large merchants. It also differentiated fee policies between physical POS devices and QR acceptance. Depending on the combination, permissible rates ranged from .3% for small merchants accepting QR-based payments, to .9% for large merchants with traditional POS devices (RBI 2017a).

After UPI launched in 2016, policies and programs aimed at promoting digital were expanded to include these payments. In 2018, the government's reimbursement scheme was extended beyond government payments to all merchant fees, including UPI transactions below

~US\$27 (Government of India 2017). UPI fees were not directly capped by RBI. Instead, the scheme owner—NPCI—took the lead in setting fee policy. In October 2019, UPI fees were capped at .3% with a limit of Rs.100 (~\$1) in fees per transaction (NPCI 2019b).

As a result of these various measures, a complicated arrangement existed by 2019 whereby the government set incentive programs, the RBI executed those programs and set caps on debit card fees, and NPCI set caps on UPI fees. The fee reimbursements were a unique policy approach aimed at incentivizing digital transactions, but it soon became evident that the execution of the reimbursement scheme was complex to implement (RBI 2017b). RBI soon announced it would no longer manage the reimbursement process, effectively ending the incentive arrangement (RBI 2019).

But a much more sweeping change was about to come. Later the same year, Finance Minister Nirmala Sitharaman announced that as of January 2020, all fees would be removed from domestic schemes, and that acceptance of these channels would be mandatory for large businesses (~US\$ 70,000 in annual sales) (Government of India 2020). The channels covered by the policy included RuPay debit cards and UPI payments. The goal of the policy was to encourage merchants to use digital payments, and the Finance Minister expressed her conviction that costs incurred by banks could be absorbed by the savings brought by handling less cash (Nandy and Sharma 2019).

The policy was met with a mixed response by the market. Some large acquirers like BharatPe had already removed

Box 1. India and merchant pricing policy: a short and complicated history (continued)

merchant fees before the policy, focusing instead on things like working capital credit. Other actors, including banks who had built fee-based acquiring models, expressed concern.

In July 2020, the RBI released a committee report noting the negative effects of the pricing prohibition, noting that the policy was “impacting the survival of payment gateways, hampering innovation efforts and resulting in job losses and a slowdown in the expansion of the digital payment infrastructure” (RBI 2020). The committee advocated for a controlled interchange and a return to incentives, like tax rebates to merchants.

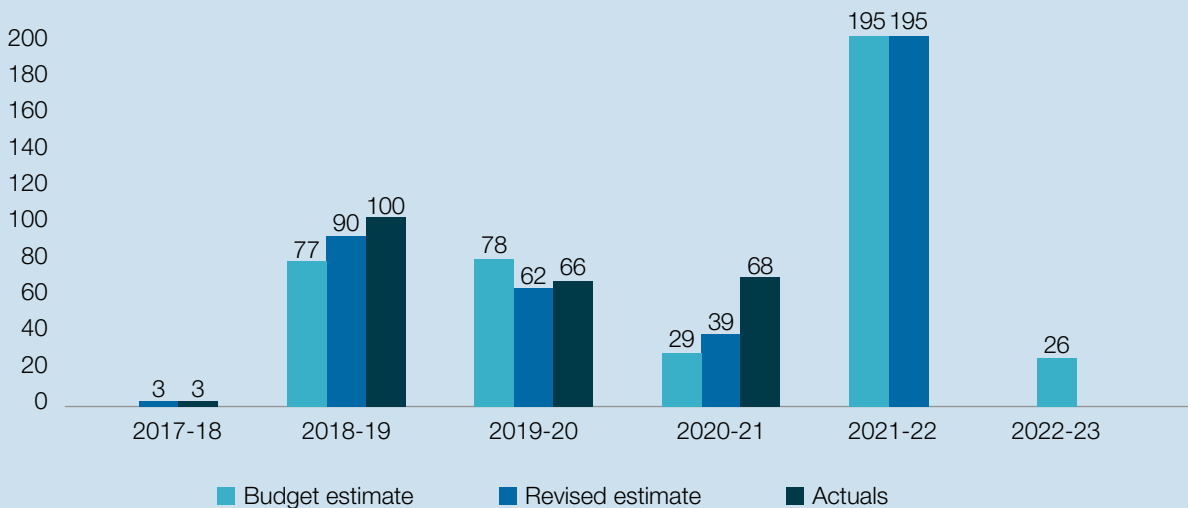
Since 2018, the Indian government has allocated funds for such incentive programs. During 2018-2020, these funds were used to finance the reimbursement program run by the RBI. In February 2021, the Finance Minister announced a budget of Rs. 1,500 crore (approximately US\$205m) for these incentive programs, a significant increase compared to previous years (Government of

India 2022). Out of this budget, Rs. the vast majority will be used to reimburse lost merchant fee revenue to banks for RuPay and UPI transactions (Ranjan Mishra and Panda).

The success of these efforts depends somewhat on the measure. Transactions over UPI continue to break records in India, and customers/merchants benefit from a wide range of fee-free payments. However, the government of India has absorbed much of the cost of achieving this vision through its reimbursement programs, and concerns remain about possible longer term impacts on business model innovation.

In early 2023, signs emerged that the landscape for merchant fees on UPI might be shifting yet again. NPCI indicated a plan to reintroduce a merchant fee for UPI transactions, though only for transactions over Rs 2,000 (around US\$ 25) and only for merchants acquired by prepaid issuers.

Budget allocations for digital payments (in million USD)



Source: PWC, [Union Budget 2021, April 2021](#) updated with data from the India [Expenditure Profile 2022-23](#), with exchange rate 1 INR = 0.013 USD (June 2022).

The merchant fee model: merchant fees permitted, no interchange, no customer fee permitted (Brazil, Singapore, Malaysia)

Instant payment systems including Pix in Brazil, FAST/PayNow in Singapore, and DuitNow/RPP in Malaysia apply a model for merchant payments that permits merchant fees, and sets interchange and customer fees at zero.

Allowing merchant fees gives flexibility to acquirers with higher cost structures to charge merchants. Removing interchange means that no price floor exists in the market, and freemium models based on adjacencies also have room to grow. Acquirers can set merchant fees if they like, but there is nothing preventing them from setting rates to zero.

In Singapore, bank participants in PayNow have mostly adopted zero fee models voluntarily, although the scheme has struggled to gain scale compared to non-interoperable competitors like Grab and Dash who charge merchant fees closer to 1%. In Brazil, Pix acquirers have introduced a range of merchant pricing models, and volumes have grown substantially since launch: merchant transactions increased 473 times to 683m per month from November 2020 to March 2023 (BCB 2023).

Without any customer fee or interchange, it is fair to question the issuer's incentive in driving interoperable merchant transactions. Where markets have high financial inclusion (such as in the countries cited above), the lack of customer incentive may present small or even no additional challenge to gaining scale. Where markets are still growing financial access, and where customer fee models are prevalent (such as in Africa), the risk may be greater.



Flexibility on merchant fees, combined with a prohibition on customer fees, encourages models based on merchant fees or adjacencies



The adjacency model: No merchant or customer fee permitted, no interchange (India, Mexico)

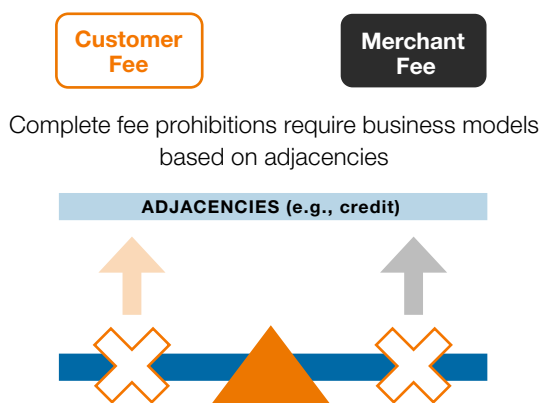
Instant payment systems such as UPI in India and CoDi/SPEI in Mexico disallow both merchant and customer fees for merchant transactions, setting no interchange between participants.

Unlike models in Brazil or Singapore, fee prohibitions in these markets have made acquiring models built on adjacencies like credit not just an option, but a necessity. The inability to charge either the customer or the merchant means that acquirers must look for other ways to recover their costs.

The results have been mixed. In Mexico, bank participants with high-cost acquiring models have not driven acquiring on CoDi, and the model has so far failed to scale. In India, growth on UPI remained strong following the fee prohibition, but payment services are increasingly dominated by a small number of large technology companies with limited local infrastructure (companies owned by Walmart and Google now account for 80% of UPI transactions, and the regulator has resorted to capping market share on UPI) (NPCI 2021). The Government of India also continues to reimburse a portion of lost merchant fees to banks.

More broadly, there are some real questions about the effects of a zero-fee policy that have yet to be resolved. While new tools have reduced the cost of acquiring substantially, the cost is not zero, and the poorest, least digital-savvy merchants may require higher touch onboarding processes than zero-fee models are able to support. In Mexico, the fintech Clip has successfully targeted exactly these merchants through an mPOS solution carrying an even higher merchant fee than cards.

Shifting costs to adjacencies like credit provides one possible answer, but this comes in the context of a broader conversation around the role of digital credit and the risks of over-indebtedness among these same groups.



Impact of fee policies on merchant payment models

Context matters, and the pricing policies best suited to drive market uptake will vary based on the acquiring models present in a country, and on what models policymakers want to support. Table 5 provides an example of how common pricing policies support or discourage different fee models for merchant payments.

Card models (merchant fee and interchange) work well where merchants have a higher willingness to pay and where issuance is expensive. They work less well for the range of revenue models seen in practice for instant merchant payments. Conversely, merchant fee prohibitions (the India and Mexico case), work well in supporting acquiring models built on adjacencies, but work less well in supporting a diverse, competitive payment ecosystem.

The merchant fee policy adopted in markets like Brazil, Malaysia, and Singapore represents something of a compromise between these approaches, providing flexibility to charge or not charge a merchant fee.

All these models prohibit the use of customer fees in formal merchant payment transactions. This means that products such as MoMoPay in Ghana, which applies a customer fee and no merchant fee, or even M-PESA, which relies on a range of customer/merchant charges based on merchant segment, would struggle to scale interoperable merchant transactions under these models.

As a result, highly informal markets with many small merchants—often the case in Africa, in particular—may find it necessary to move even further outside today's models toward a more flexible arrangement that provides a role for customer charges. Examples of this adapted approach are seen with use cases such as UPI's P2PM in India (which existed until the prohibition of fees by the government the year following launch).

TABLE 5: **Suitability of Common Policy Approaches for Different Merchant Payment Revenue Models**

Scheme/regulator policies for interoperable instant merchant payments			
Provider revenue model for merchant payments	Traditional card model: <ul style="list-style-type: none"> • Merchant fee permitted • Interchange applied • No customer fee permitted <i>(e.g., Visa, Mastercard)</i>	IPS merchant fee model: <ul style="list-style-type: none"> • Merchant fee permitted • No interchange applied • No customer fee permitted <i>(e.g., Pix Brazil, Duitnow Malaysia)</i>	IPS no merchant fee model: <ul style="list-style-type: none"> • No Merchant fee allowed • No interchange applied • No customer fee permitted <i>(e.g., UPI India, CoDi Mexico)</i>
Neither merchant nor customer pay transaction fee (revenue through adjacency) <i>(e.g., Google Pay, India)</i>	❌ Card model is not well suited to building fee-free models. Acquirers must pay interchange, setting a price floor and likely leading to merchant fees.	✅ IPS fee model is well-suited to adjacency model. Fintechs have flexibility to set zero-fee transactions.	✅ No merchant fee model is well-suited to adjacency model. The prohibition of fees does not directly impact model anyway built on adjacencies.
Customer pays transaction fee, no merchant fee <i>(e.g., MoMoPay in Ghana)</i>	❌ Card model is not well suited to models based only on customer fees. Acquirers must pay interchange, setting a price floor and likely leading to merchant fees.	❌ IPS fee model is not well suited to customer pays models, where those fees are not permitted. Even though merchant fees are permitted, the customer cannot be charged.	❌ No merchant fee model is not well-suited to customer fee models where customer fees are not allowed. No charge is available.
Either customer or merchant may pay transaction fee <i>(e.g., M-PESA in Kenya)</i>	⚡ Card model may work with models based only partially on customer fees. However, the impact will depend on ability to adapt merchant pricing in response to interchange and build in fees previously recovered from customers.	⚡ IPS fee model may work with models based only partially on customer fees, where those fees are not permitted. However, the impact will depend on ability to adapt merchant pricing to recover amounts previously earned from customers.	❌ No merchant fee model is not well-suited to split fee models where customer fees are not allowed. No charge is available.
Only the merchant pays transaction fee <i>(e.g., Alipay in China)</i>	⚡ Card model may be well suited to models based on only merchant fees, but interchange is likely to increase merchant fees beyond desired levels for reaching small merchants.	✅ IPS fee model is well suited to models based on only merchant fees. Acquirers can set merchant fees if they wish.	❌ No merchant fee model is not well-suited to merchant-pays model. The prohibition of fees eliminates ability to charge the merchant.
Only the merchant pays transaction fee, customer gets rewards <i>(e.g., FavePay, Singapore)</i>	✅ Card model is well suited to models with merchant fees and customer rewards. Interchange may result in higher merchant fees, but also contributes to sustainability of customer reward programs.	⚡ IPS fee model may be well suited to models with customer rewards for merchant transactions. However, rewards are likely to remain only for on-net transactions.	❌ No merchant fee model is not well-suited to merchant-pays model. The prohibition of fees eliminates ability to charge the merchant.

ADVICE FOR SCALING INSTANT, INTEROPERABLE MERCHANT PAYMENTS

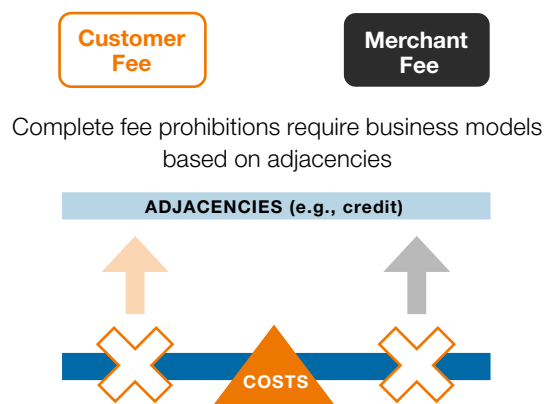
IN SETTING PRICING POLICIES FOR merchant payments, there will always be a tension between the goals of maximizing use (through low end-user costs) and driving acquiring (through robust, sustainable business models). Schemes and regulators looking to help scale merchant payments through pricing policy should consider these tradeoffs, understand the impacts on existing business models, and where possible, develop solutions in consultation with market participants.

With this being said, global experience on these topics can provide some direction:

Merchant fee prohibitions should be viewed with caution

Fee prohibitions face several challenges in practice. At minimum, they dictate a very specific business model to the market – one without fees, supported by adjacencies like credit. This can be problematic for several reasons.

First, when transaction fees are applied, they are generally progressive. The larger the transaction, the more you pay. However, the types of hidden charges and high-interest rate credit that can accompany business models that replace transaction fees are often regressive—i.e., they are more likely to impact poor people transacting with high



volumes and low values (as seen with effects of the Durbin amendment in the US).

Second, fee prohibitions typically favor a specific type of acquirer with the capability to invest heavily and defer returns on investment (large technology companies like Google and PhonePe). Market consolidation becomes a risk, as does the hollowing out of the ecosystem supporting payment services.

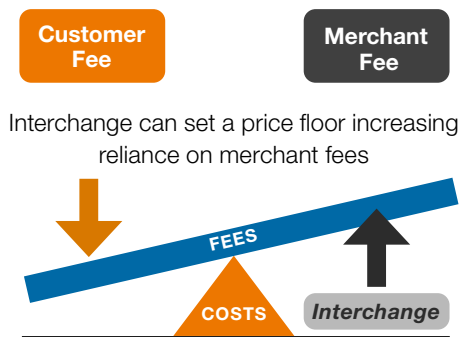
It is important to note that the types of actors most successful at reaching merchants without fees (e.g., through self-print QR and remote registration) are pursuing this model anyway. Fee prohibitions don't create room for these actors to scale their models, they only eliminate the room for other types of actors with different strategies, often those with higher-touch, in-person acquiring best suited to the least technologically savvy merchants.

Rethink the role of interchange

The reasons that existed for applying interchange in the context of card transactions do not generally apply in the instant payment world. The costs of issuance and reward programs are fewer, as is the ability for an acquirer to build this cost into their acquiring margins.

Further, interchange sets a price floor that can limit innovation in pricing models. Just as a fee prohibition forces the market toward a fee-free business model, interchange can lead the market toward a reliance on merchant fees.

However, interchange is fundamentally a balancing mechanism between issuers and acquirers, and decisions should be made based on market context.

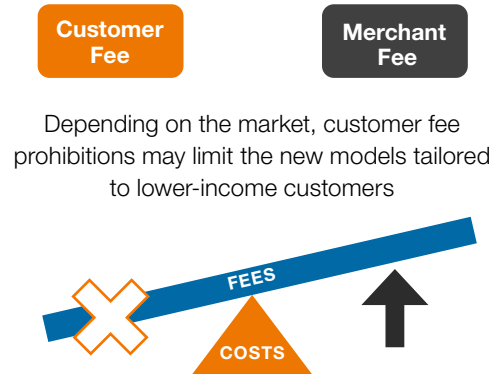


Customer charges shouldn't be counted out

The world of formal and informal commerce is messy, and many of today's small-value commercial transactions on platforms like M-PESA are happening over P2P rails with customers paying the fee.

Rather than planning an ideal image of the market, schemes should adapt pricing frameworks to better mirror market behaviors. More flexibility is needed in pricing policies for informal commerce to be brought into the digital world. This may imply the introduction of such P2PM use cases, allowing participants to charge customers for merchant transactions, where this makes sense based on existing market behaviors.

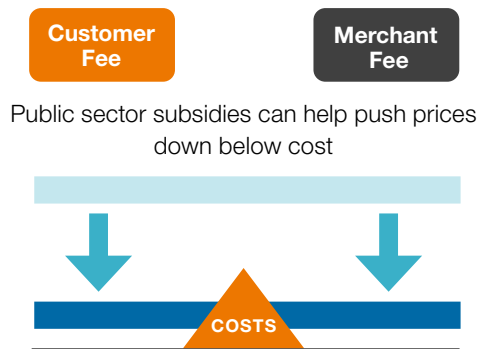
Merchant pricing policy also cannot exist in a vacuum. If P2P services are mandated free, the merchant fee structure may not matter, as customers and merchants will quickly flock toward this use case. In Pakistan, branchless banking providers initially witnessed some arbitrage between P2P and merchant use cases as P2P fees were set to zero. The case serves as a reminder that use cases (and associated fee policies) are interrelated in practice.



Incentives can play an important role in reaching the smallest merchants

Higher touch acquiring, including things like training on digital channels, is often needed in the places where it can be least afforded.

Public sector subsidies/incentives to encourage adoption can play a role. Markets like Singapore and India have explored fee reimbursements to acquirers and even direct rewards to merchants to scale digital payments.

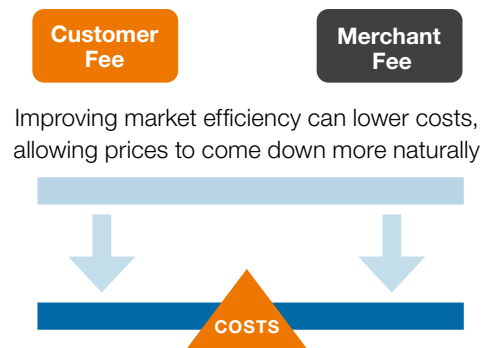


The problem with pricing isn't always the price

Numerous barriers often exist in markets that make it harder (and therefore more expensive) to acquire merchants through digital means.

Does tiered KYC exist for merchants? Is digital registration allowed? Is interoperability and QR standardization in place? Along with a user-friendly directory service?

Helping to streamline acquiring into a seamless, one-time, and if possible, remote, process for the merchant will provide the room for acquiring models with lower costs, and, in a competitive market, lower merchant fees as a result.



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