DIGITIZING MERCHANT PAYMENTS IN BANGLADESH

Building the Business Case for Small Retailers

December 2018
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INTRODUCTION

Bangladesh’s largest mobile financial services provider, bKash, added mobile merchant payments to its service offerings in 2014. Three years later, more than 50,000 establishments throughout the country were registered with bKash’s platform. While the Bangladeshi economy is still predominantly cash-based, bKash is helping to revamp the way that transactions are made.
IFC partnered with bKash—with support from the United Kingdom’s Department for International Development (DFID)—to support the launch and expansion of its merchant payment services. In 2017, IFC surveyed merchants and customers to study uptake of the service and extract learnings from early adopters. Insights from the study show:

- **14%** of microenterprises used the merchant payments service every month.
- **25%** of small and medium enterprises

**Usage rates for the merchant payments service remained low at the end of 2017.**

- **90%** of active* merchants and merchant payment users wanted to increase their use of the platform.
- **Most active merchants believed that the bKash platform added value to their business.**

- **25%** of small and medium enterprises
- **58%** of SMEs and **72%** of microenterprises needed to improve their placement of bKash marketing materials.

**Stores that handled smaller, higher-frequency transactions received significantly more payments through the bKash platform.**

**Store characteristics such as size and type of store were important drivers of activity.**

- **More than half** of all active* merchants reported cash management benefits.
- **Benefits included reducing the time that merchants spend handling cash and helping merchants keep their money safe.**

*Merchants that received at least one payment through the platform during the study period*
Since mobile money was introduced in Bangladesh in 2010, there has been a rapid increase in the use of mobile financial services. Today, the mix of a large population without access to financial services, a limited financial infrastructure, and a relatively high penetration rate of mobile phones has ensured that mobile payments have the potential to reshape the way Bangladeshis do business.

The penetration of mobile financial services in Bangladesh is already striking. In 2017, 21 percent of Bangladeshi adults had mobile money accounts, mostly registered with the country’s largest mobile financial services provider, bKash (Box 1). In comparison, only 4.2 percent of adults in South Asia had mobile money accounts. Furthermore, mobile money has been a key driver in the growth of financial access in Bangladesh. The number of Bangladeshi adults with financial accounts grew from 31 percent in 2011 to 50 percent in 2017.

Worldwide, financial service providers increasingly use digitization not only to speed up transactions, but also to make their services more accessible for enterprises and individuals—including people in developing countries and remote areas. However, cash is still the dominant means of payment in Bangladesh and many other economies, particularly developing economies. Globally, 56 percent of all payments processed annually are made in paper form at small retailers, and 20 percent of account owners are not using their accounts at all. In Bangladesh, only 30 percent of adults made a digital payment in 2017, up from 6 percent in 2014. Moreover, only 16 percent of Bangladeshi adults received a digital payment—such as remittances or wages—directly into a financial institution account or through a mobile money account.

Therefore, it is critical to identify the obstacles that customers and merchants encounter in accessing and using non-cash services. This study seeks to do just that, by examining the experience of bKash in launching its merchant payments platform in Bangladesh.
bKash Services

bKash is now used by all types of Bangladeshi businesses—from self-employed rickshaw pullers sending money to their families, to small business owners paying workers’ wages directly rather than through intermediaries, to mom-and-pop shops paying bills remotely, eliminating the need for them to travel to pay their suppliers in person.

To open a bKash account, new customers visit a bKash agent that checks their identity papers and sets up an electronic wallet (e-wallet) for them. This is a virtual account linked to the customer’s mobile phone number for unique identification. Customers add money to their e-wallets by depositing cash at an agent, or through remittances and other payments.

bKash agents can be airtime providers, kiosks, or grocery store owners, and they perform a critical role for bKash: They provide “cash-in and cash-out” services that allow customers to effectively withdraw cash from and deposit cash into their accounts, and they also provide step-by-step guidance on how to make transactions. Cash in and cash out is also possible at BRAC Bank automated teller machines (ATMs).

bKash made early strategic decisions to target low-income customers and enable rapid growth. The company built a user interface that can be accessed through any basic phone (clients enter *247# to access a menu of options). bKash also charged low person-to-person payment fees, and it focused on expanding its agent network, which is now one of the world’s largest, with 180,000+ agents covering the entire country.
The Next Step: Merchant Payments

Providing clients with access to a basic transaction account and domestic remittances is a first step that can gradually lead them to access and use more financial services—and thus result in broader financial inclusion. Most mobile money and mobile payments services offer the same basic features: using a mobile device to deposit, withdraw, and transfer money, and to pay for bills. More advanced service offerings that have begun to emerge in more mature markets include accessing loans and savings products, and merchant payments for goods and services at the point of sale, either remotely—for example, in the case of deliveries—or online. Digitizing transactions through merchant payments can be beneficial for both individual customers and merchants (box 2). There have been some successful rollouts of merchant payments platforms in other emerging markets (box 3).

BOX 2. Benefits of Merchant Payments vs. Cash

**For customers**
- Safer and more convenient
- Monetary and time savings, by reducing the need for account withdrawals
- Savings through access to loyalty programs and promotions
- A transaction history and data trail that can be leveraged for access to credit or other services
- Easily accessible transaction records for personal financial management

**For merchants**
- A convenient method of accepting remote payments
- Less cash in the store, and therefore a reduced risk of theft or loss
- Ability to offer the service for free to customers
- Better accounting and inventory management
- A transaction history and data trail that can be leveraged for access to credit or other services
- Value-added service from loyalty programs, and marketing support

[https://openknowledge.worldbank.org/handle/10986/24700](https://openknowledge.worldbank.org/handle/10986/24700)
bKash added mobile merchant payments to its service offerings in 2014. The International Finance Corporation (IFC) provided support for developing a strategy for the product and for acquiring new merchants. To date, bKash’s platform comprises more than 50,000 merchants’ establishments throughout Bangladesh. The company has since added other new services for customers: interest payments on money saved in an account and the ability to receive international remittances directly into their bKash accounts.8

bKash offers the ability to make mobile merchant payments free of charge to customers, who can access the service via either a basic phone or a smartphone. Customers with a basic phone simply enter *247# then a merchant ID and payment amount; customers with a smartphone also can scan QR codes. bKash also offers this service—for a fee or with a capped amount—to small and medium enterprises (SMEs) that are retailers, including several franchises, and to micro-enterprises (box 4). The mobile merchant payments include the very small enterprises—often for the first time—in a payment network.

**Box 3. Promising Merchant Payments Rollouts in Emerging Markets**

Merchant payments are not new to emerging markets, but in most of these countries, they tend to be limited to a small number of larger enterprises. This tendency is evident from the low usage rates for debit and credit cards: less than 10 percent in South Asia and Sub-Saharan Africa, compared with 82 percent for high-income countries. In recent years, mobile money providers and fintech platforms have begun to test ways to fill this gap, as seen from these two examples.9

**Kenya: Lipa na M-Pesa.** Kenya is the home of Africa’s first major mobile financial services venture, M-Pesa. Launched in 2007 by Kenyan mobile network operator Safaricom, M-Pesa allows customers to use a mobile device to deposit, withdraw, and transfer money, and—via its Lipa na M-Pesa service—to pay for goods and services. As of 2017, Lipa Na M-Pesa had 19 million active users, more than 50,000 active merchants for payments, and more than 130,000 agents for more traditional mobile money services.

**China: Alipay.** The world’s largest mobile payment platform, Alipay has more than 520 million active users and more than 200 domestic financial institution partners. Launched in 2004 by the China-based technology conglomerate Alibaba Group, Alipay has broadened its services beyond a digital wallet and e-commerce services. Customers can use Alipay for offline in-store payments, both in tens of millions of brick-and-mortar merchants across China, and in more than 40 other countries and regions across the world.9

To better understand the nuances in use of merchant payments, IFC, in partnership with bKash—and with support from the United Kingdom’s Department for International Development (DFID)—carried out a study in 2017. Using surveys of bKash merchants and customers, the study sought to understand variations in levels of use of merchant payments, engagement with bKash’s digital payment platform, and the potential for increasing activity (box 5).

Merchants’ feedback on the bKash merchant payments experience was encouraging: three-quarters believed that these payments added value to their business, according to the survey. Moreover, nine of every ten merchants reported that they wanted to increase the percentage of their sales made through bKash.

Customers appeared to be more hesitant about merchant payments, with 80 percent of bKash users interviewed saying that cash was the most convenient method. However, of those that had made a merchant payment, 90 percent wanted to increase their use of the service. This suggested that customers were still learning the benefits of using the platform.

**Box 4. bKash Fee Structure**

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>Customer Fees</th>
<th>Business Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Free</td>
<td><strong>SME merchants:</strong> 1% settlement fee</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Microentreprises:</strong> Free, up to 15,000 Bangladeshi Taka (BDT) (US$188)</td>
</tr>
</tbody>
</table>

Nine of every ten merchants reported that they wanted to increase the percentage of their sales made through bKash.
As such, the surveys sought to understand the obstacles limiting their use for merchants and their customers.

Customers. Similar surveys were conducted with bKash customers, in the same regions as the merchant surveys, to complement the merchant insights. However, the customer sampling design differed in that it sought to obtain the most information from users of merchant payments, rather than obtaining a representative sample. The final sample covered 393 individuals: 106 bKash users who had made merchant payments and 287 regular bKash customers.

### Surveyed merchants

<table>
<thead>
<tr>
<th>Surveyed merchants</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>800 micro</td>
<td></td>
</tr>
<tr>
<td>200 SMEs</td>
<td></td>
</tr>
</tbody>
</table>

### Surveyed customers

<table>
<thead>
<tr>
<th>Surveyed customers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>106 bKash merchant payments users</td>
<td></td>
</tr>
<tr>
<td>287 bKash regular customers</td>
<td></td>
</tr>
</tbody>
</table>
WHAT WE LEARNED ABOUT MERCHANTS AND CUSTOMERS

**Merchants**

The bKash/IFC surveys focused on merchants in five regions of Bangladesh where bKash activity was higher because of the large proportion of customers who were receiving remittances from Dhaka and other parts of the country. At the time of the survey, merchants had been registered to use the payments platform for between 18 and 24 months, on average. Two-thirds of the surveys were conducted with merchants that were actively using the bKash merchant payments platform, with the aim of taking stock of the progress made and any remaining barriers to use in the first months of service. About a third of the surveys focused on merchants that were registered with bKash but not actively using its merchant payments services. The survey sample covered two sizes of enterprises: 801 microenterprises and 202 SMEs. In both cases, the merchants were subdivided into two main groups of establishments: retailers selling larger goods such as clothes, household items, and hardware; and grocers, food stalls, pharmacies and telecommunications providers selling smaller goods and services (see box 6 for details).

"Customers located in remote Upazilas [districts] are avoiding travel costs. They can pay through bKash for free, which is to their advantage, and collect their goods later."

—Kazi Anisur Rahman, 40, Butterfly marketing (SME), Kushtia Sadar, Bangladesh

**Use of bKash and Other Forms of Payment**

**Microenterprises**

**Cash.** Unsurprisingly, cash was still the most common means of payment. Roughly eight in ten bKash merchants estimated that bKash transactions accounted for less than 10 percent of their monthly sales.

**Other forms of electronic payment.** Two percent of merchants accepted credit or debit card payments. Interestingly, 5 percent of merchants accepted other mobile payments—primarily the Rocket product offered by Dutch-Bangla Bank (DBBL).

**Credit.** Fifty-two percent of stores offered sales on credit. Among these, 65 percent were active bKash users. Among merchants that did not offer credit, acceptance of bKash was nearly 10 percentage points lower.

**Small and Medium Enterprises**

**Cash.** Cash was predominant also among larger SME retailers, accounting for 72 percent of merchant sales.
**BOX 6. Merchant Characteristics**

**Microenterprises**

- Retail: 55%
- Grocer: 41%
- Other: 4%

**Small and Medium Enterprises**

- Retail: 74%
- Grocer: 19%
- Other: 7%

### Monthly Sales

- Microenterprises: 609,956 BDT* ($7,624)
- Small and Medium Enterprises: 3,383,903 BDT ($42,300)

### Daily Customers

- Microenterprises: 51
- Small and Medium Enterprises: 59

### Average Sale

- Microenterprises: 1,300 BDT ($16)
- Small and Medium Enterprises: 5,700 BDT ($71)

### Active bKash merchants†

- Microenterprises: 60%
- Small and Medium Enterprises: 56%

**Selected demographic characteristics** of respondent microentrepreneurs and store managers for SMEs: Nearly all respondents were male, and more than half were younger than 35. Most respondents, especially SME owners, had completed at least a secondary-level education: 96 percent of SME managers and 71 percent of microentrepreneurs. Most microentrepreneurs relied on their store as their main source of household income.

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* Bangladesh Taka  ** All the ranges correspond to data between the 10th percentile and the 90th percentile, to avoid outliers.
† Merchants that received at least one payment through the platform during the study period.
Other forms of electronic payment. SMEs were more likely than microenterprises to accept alternative forms of payment: 69 percent of SMEs accepted credit and debit cards and 26 percent accepted other mobile payments (excluding bKash). The survey estimated that approximately 19 percent of merchants’ sales were conducted through credit and debit cards and other mobile channels, and 7 percent through bKash.

Credit. Only 26 percent of SMEs offered customers temporary credit, a far smaller portion than for microenterprises.

bKash Customers

The surveys of bKash customers were conducted in the same regions as the merchant surveys. Interviewees included 393 individuals: 106 bKash users who had made merchant payments and 287 regular bKash customers.

The results showed that early adopters of merchant payments were more entrepreneurial and financially connected than bKash customers who had never used merchant payments (box 7). Characteristics such as a high level of education, bank account ownership, smartphone ownership, and entrepreneurial activity appeared to have a significant correlation with a customer’s willingness or ability to use the bKash wallet to pay for goods and services. Users of merchant payments also tended to have used basic bKash services for longer and were more familiar with bKash than other customers who had not used merchant payments.

“Cash usually gets lost when I carry it in my wallet. But now I load the money in bKash and go shopping.”

—Mohammad Robiul Awal Palash, 25, resident of Kushtia Sadar, Bangladesh

<table>
<thead>
<tr>
<th>BOX 7. Early Adopters of Merchant Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual characteristics:</strong></td>
</tr>
<tr>
<td>♂ 93% male</td>
</tr>
<tr>
<td>72% younger than 35</td>
</tr>
<tr>
<td>75% completed at least secondary-level education</td>
</tr>
<tr>
<td>82% employed; 59% owned a business</td>
</tr>
<tr>
<td><strong>Financial Access:</strong></td>
</tr>
<tr>
<td>72% had a bank account</td>
</tr>
<tr>
<td><strong>Use of bKash services:</strong></td>
</tr>
<tr>
<td>97% made bKash transactions themselves</td>
</tr>
<tr>
<td>80% had used the services at least once in the previous week</td>
</tr>
</tbody>
</table>
Three years after the launch of its merchant payments service in Bangladesh, bKash was able to establish a broad network of merchants accepting mobile money as payment for goods and services—even though cash remained the favored form of payment. Still, usage rates for the merchant payments service remained quite low at the end of 2017: more than 60 percent of merchants had processed a bKash payment in a given month, but the number and value of payments processed through the platform each month was limited, particularly among microenterprises.

Furthermore, only 14 percent of microenterprises and 25 percent of larger SMEs used the service every month, revealing that their customers still used this payment method only occasionally.11

In spite of the limited usage, the perceived value of the merchant payments service was high among both merchants and users, the bKash/IFC surveys found. This indicated that there was significant room for encouraging broader and more consistent adoption of the service. Future promotional efforts should address the most common objections to using bKash merchant payments that emerged from the surveys (box 8).

The study of 801 microenterprises and 202 SMEs registered with bKash revealed several factors that correlated with usage of merchant payments and that offered insights for bKash’s efforts to strengthen the business case for this service. Following are summaries of five insights, related to: store size and type, financial services, cash management, marketing materials, and experience using bKash.
Store Size and Type

Store characteristics were important drivers of activity in this early stage of adoption. Larger stores, and stores characterized by smaller, higher-frequency transactions, received significantly more payments through the bKash platform (box 9). These patterns are in line with adoption of electronic payments worldwide and highlight the importance of merchant segmentation that delivers the right value proposition to each group.

Microenterprises. Among these smaller businesses, 86 percent were sole proprietors. Grocers were more active on the merchant payments platform than retailers, with 69 percent of grocers receiving bKash payments, compared with 56 percent of retailers during the study period. Other store characteristics associated with a higher number of bKash transactions included:

- **More customers.** Microenterprises that received bKash payments had a median of 30 customers per day, compared with 20 customers per day for inactive merchants.

- **More employees.** Smaller merchants had an average of 0-2 employees. For every additional employee working in the store, there was an increase of 5 percent in the value of bKash transactions, on average.

### BOX 9. bKash Payments by Store Type*

<table>
<thead>
<tr>
<th></th>
<th>Micro</th>
<th>SME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grocers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactions</td>
<td>5</td>
<td>61</td>
</tr>
<tr>
<td>BDTs**</td>
<td>11,000</td>
<td>220,000</td>
</tr>
</tbody>
</table>

| **Retailers** |       |        |
| Transactions | 3     | 20     |
| BDTs | 11,000 | 38,000 |

* Average number and value of all monthly transactions among merchants for each type of store who received at least one payment through the platform during the study period. ** Bangladeshi Taka
“Most of the goods bought on installment (credit) are paid for through bKash. We don’t need to go to clients to collect delayed payments. When the payments are made in cash, it is a lot of work.”
—Kazi Anisur Rahman, 40, Butterfly marketing (SME), Kushtia Sadar, Bangladesh

- **A “point-of-sale device.”** Stores with a dedicated mobile phone as a point-of-sale device for the business—as opposed to a personal phone—registered 22 percent more transactions, on average.

- **Offering goods on credit or delivery.** Merchants that offered the option of buying goods on credit registered 25 percent more in monthly value of bKash transactions than merchants that did not offer the service. Similarly, stores that offered deliveries of goods saw 25 percent more in value transacted via bKash than their peers.

**Small and Medium Enterprises.** Larger stores found more value in the merchant payments service: A larger share of SMEs was active on the platform, and SMEs averaged 21 bKash transactions per month, compared with 4 bKash transactions per month for microenterprises. SMEs with a higher number of customers visiting the store processed more bKash transactions. Similar to microenterprises, SMEs that were active on the platform had, on average, more customers: active merchants served a median of 40 customers per day, compared with 20 per day for inactive merchants. Grocers, food stalls, pharmacies, and other stores characterized by smaller, higher-frequency transactions processed a larger number and a higher value of payments through bKash than was the case for other retailers.

Mohammad Tikka Khan, 29, is a microentrepreneur who sells food and cigarettes in Kushtia Sadar. About 20 percent of his monthly sales are made through bKash merchant payments.
Financial Services

The bKash merchant payments rollout showed the service’s potential as a means to boost access to finance among microenterprises. As part of its efforts to register merchants, bKash was successful at reaching microenterprises in rural areas. It also provided a particularly compelling proposition for businesses without access to bank accounts or other financial services and for stores that did not have other electronic payment systems.

On the other hand, further financial inclusion of SMEs in the bKash payments network was limited to stores that did not have other electronic payment systems. That was because SMEs were generally more concentrated in urban areas and already had bank accounts. The surveys showed that for some of these merchants, bKash was their only electronic payment option. The analysis also showed that merchants that were already accepting other electronic payments were more likely to use the bKash payments platform, suggesting that newly financially included merchants were still adjusting their business operations to offer bKash payments to customers.

Microenterprises

- **Rural areas.** Merchants registered with bKash in rural areas had bKash activity rates of 70 percent, compared with 54 percent for their peers in urban areas.

- **Merchants without access to finance.** The share of microenterprises with no access to bank accounts or other financial services was small, since 86 percent of smaller merchants had bank accounts. However, the numbers were striking for merchants without access to finance that were registered with bKash: on average each month, they received 30 percent more in bKash payments than their peers with access to finance, and almost 33 percent more in bKash transaction value. The data showed that merchants without access to finance were on average smaller and more informal, and that payment digitization represented a significant financial value proposition for them.

- **Other electronic payments.** Microenterprises’ acceptance of other payment methods was very low, but it was correlated with receiving more payments on the bKash platform. Only 2 percent of all smaller merchants surveyed accepted debit/credit card payments and 5 percent accepted payments through other mobile platforms. Accepting payments using other mobile money platforms was associated with twice as many bKash transactions processed.

Small and Medium Enterprises

Among microenterprises, 44 percent were located in rural districts and 14 percent had no access to bank accounts or other financial services.
• Other electronic payments. While SME merchants’ acceptance of other electronic payment systems was high when compared with microenterprises, for some of these merchants, bKash was their only electronic payment option. Sixty-nine percent of SMEs accepted debit/credit cards, and these merchants also accepted significantly more bKash payments than their peers. Similarly, 27 percent of SMEs were already accepting payments through other mobile platforms.

Cash Management

Activity on bKash payments was correlated with better financial management practices. Most merchants who were receiving bKash payments thought that their money was safer when using the platform, and they also reported spending less time on activities related to cash management (box 10). However, there was room to improve cash management and accounting practices, particularly among microenterprises, where reliance on manual accounting and cash was dominant.

Microenterprises. An estimated 81 percent of these smaller merchants kept all or part of their daily store balance in cash, and most of these smaller business owners kept manual financial accounts of their business.

Small and Medium Enterprises. SME merchants usually deposited leftover cash into a bank account. The 28 percent of stores that kept all or part of their daily cash balance on hand received payments that were 72 percent less than the average value transacted by large merchants. As was the case for microenterprises, bKash acceptance was associated with better financial management. Unlike the smaller merchants, most SMEs kept their financial accounts on computers.

BOX 10. Cash Management Benefits

6 of 10 microenterprises reported less time managing cash
5 of 10 SMEs

7 of 10 microenterprises considered their money to be safer because of using bKash
8 of 10 SMEs
Marketing Materials

Improving the visibility of the service had a direct bearing on its use—for both customers and merchants—particularly in this early phase. bKash branding was the most significant predictor of merchant payments activity among both small and large merchants (box 11). The surveys revealed that 72 percent of microenterprises and 58 percent of SMEs did not have bKash promotional materials in their stores, and that their bKash account numbers were not clearly visible. Surveys also confirmed the importance of visible marketing, with 40 percent of customers interviewed indicating that greater availability of bKash merchant acceptance points would encourage them to use the service more.

Microenterprises. Merchants that displayed bKash marketing materials received 24 percent more bKash merchant payments, and nearly twice as much value in those payments, when compared with their peers. Moreover, the presence of marketing materials made merchants more likely to become active over time, if they had been inactive for some months—and less likely to stop using the service, if they were already using the platform.

Small and Medium Enterprises. This effect was more marked among SMEs, for which visible marketing material in the store was correlated with approximately three times the transactions and transaction value of their peers, and also correlated with greater consistency in activity over time.

“Money paid through bKash is automatically deposited to my merchant account. That is saving me a lot of time. If I had to go to the bank to deposit the money, I would lose many customers. If I had to accept all payments in cash, I would need to hire a person just to receive money.”

—Adam Houlader, 29, X-Telecom (SME), Kushtia Sadar, Bangladesh

BOX 11. Visible Marketing Material Benefits

Merchants that displayed marketing materials processed significantly more value in bKash payments, when compared with their peers.

+85% microenterprises

+140% SMEs
Experience Using bKash

The surveys found that bKash merchant payments activity was correlated with number of years on the platform and personal bKash use for individual microentrepreneurs. These findings highlighted the importance of the client’s journey and confirmed that the platform was still in an early implementation stage.

Although the bKash system was generally considered reliable, both smaller and larger merchants occasionally experienced issues with connectivity and with timeliness of payment notifications (box 12). The study also investigated the relationship between the use of Internet and mobile technology and bKash merchant payments activity (box 13). This relationship was only relevant for microenterprises, because for SMEs, the task of processing bKash payments was not always dependent on the manager’s digital literacy.

Microenterprises

- **Length of experience.** One additional year of registration with the bKash merchant payments platform was associated with 33 percent more payments received through the service, and an increase of 24 percent in the value of transactions. However, experienced merchants were less likely to become active with bKash if they had not been actively using the platform for several months.

- **Personal accounts.** A merchant’s personal use of a bKash account was positively correlated with higher payment activity on the merchant payments platform. Sixty-three percent of merchants had a personal bKash account and among these, nearly two out of three used their account at least weekly. Weekly usage of

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**BOX 12. Failed Transactions**

The bKash system was generally considered reliable, and few merchants reported any issues with a delay in transaction time that could result in a long line at their store. The main reasons for failed transactions were:

- The system failed to quickly confirm payments.
- The network experienced connectivity issues.
- Microenterprises hit their limit on monthly transaction volumes.

Surveys of merchant payments customers mentioned similar issues. The most common challenge, recognized by 58 percent of users, was merchants reaching their monthly limit.

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**BOX 13. Smartphone Users**

An overwhelming 91 percent of merchants agreed that the basic phone interface was not a major barrier to using the bKash payment service. Oddly, smartphone ownership was negatively associated with merchant payments activity. At the time of the survey, bKash did not offer a smartphone app, so this data suggests that smartphone users found the basic merchant payments platform interface to be less convenient or user friendly than other services they were using on their phone.

In early 2018, bKash launched a smartphone app that allows scanning of QR codes. This likely will boost usage of its merchant payments, given the high and growing penetration of smartphones, particularly in regions where mobile money is prevalent.

Worldwide, there has been growing use of smartphone apps to scan QR codes to make payments. For example, one-third of all digital payments in China—$2.6 trillion worth of transactions—used QR codes in 2016.13
personal bKash accounts was associated with a higher number of merchant payments received, and an increase of 45 percent in the value of payments received. Personal bKash users were also more likely to continue accepting bKash merchant payments over time.

- **Account access method.** bKash’s user interface\(^2\) can be accessed through any basic phone; a new smartphone application was launched in 2018, after the study was completed. A merchant’s preference for using the bKash balance to carry out other transactions through their mobile phones (45 percent of respondents), as opposed to cashing out at an agent or ATM, was linked to a 26 percent increase in value of bKash payments they received in an average month.

**Small and Medium Enterprises**

- **Length of experience.** Contrary to the experience of microenterprises, merchants that actively used the bKash merchant payments platform had been registered for a year less than inactive merchants, on average. These inactive merchants were less likely than others to become active users of the service.

The study did not capture information about SME merchants’ use of personal bKash accounts or preferred access methods, because managers of these businesses have limited roles in their operations.

Mercants who used the bKash interface on their phone, without help from an agent, received bKash transactions with a 26 percent higher value per month than merchants who needed help.
In the first three years since its merchant payments product was launched, bKash developed a network of more than 50,000 establishments registered to accept these payments throughout Bangladesh. However, the frequency and value of usage of the services among these merchants remained quite limited in an economy that was still dominated by cash.

More than 90 percent of microenterprises’ transactions and 70 percent of SMEs’ transactions were processed in cash, survey results showed. On the other hand, the business case for merchant payments is promising so far, and feedback from both merchants and their customers has been positive, which suggests the potential for a gradual increase in electronic retail payments—assuming the lessons learned are implemented.

**The business case.** Among early users, acceptance of merchant payments was correlated with improved financial management practices: 60 percent of active bKash microentrepreneurs reported spending less time managing cash since they started using bKash for their business, and 74 percent considered their money to be safer when they were using bKash. bKash also showed potential for boosting financial inclusion, by reaching merchants that did not have another electronic payment system in place, as well as microenterprises that were located in rural areas and had no access to finance.

**Positive feedback.** Three-quarters of the store owners reported that the merchant payments added value to their business, and 90 percent said that they wanted to increase the percentage of their sales made through bKash. Customers were more conservative about merchant payments, citing convenience as a key reason for preferring cash, but of those that had made a merchant payment, 90 percent wanted to increase their use of the service.
Recommendations to Increase Use of the bKash Merchant Payments Platform

This study set out to understand the obstacles that customers and merchants encounter in accessing and using non-cash services, using the experience of bKash in launching its merchant payments platform in Bangladesh. The findings indicate that implementing merchant payments requires early-stage investments to encourage usage, beyond simply establishing a network of acceptance points. The experience of bKash and other merchant payment rollouts globally show that continuing to develop the business case for the service can be crucial to increase its value addition and drive usage. Furthermore, the study found that bKash’s promotional efforts for its new service should include components such as addressing common objections that emerged from the surveys and emphasizing the importance of visible promotional items in stores. In this context, the following are some specific recommended steps to increase use of the bKash merchant payments platform—and other similar payment platforms:

• **Promote the business case.** bKash should continue promoting the business case for its merchant payments service to inactive merchants who are still unsure of the convenience of the service. The surveys illustrate the following benefits:
  - The service is safer and faster to handle than cash and can be used to make remote payments.
  - Microenterprises’ use of merchant payments leads to better financial management, and improved cash management and accounting practices can ease their access to credit and other financial services.

• **Enhance displays of marketing materials.** Given the finding that signage at stores was likely to increase activity, as well as to make inactive merchants become more active on the merchant payments platform, bKash should encourage more advertising by its registered merchants. Options include:
  - Follow up with merchants who indicated they did not have visible displays and provide suggestions for how and where to display marketing materials
  - Include suggestions about placement of marketing materials in the onboarding process for merchants newly registering with bKash
  - Get information from merchants about what they believe could be done to enhance the marketing materials
  - Get information from customers about what needs are not addressed by the current marketing materials
Identifying merchants that are regularly reaching the monthly transaction limit and offering to relax the limit for them is key to growing the existing user base.

- **Conduct targeted outreach.** Some segments of customers, such as those with little experience using bKash, require more technical support to increase their use of the platform. In addition, the study analysis showed that some types of merchants were more likely to avoid the merchant payments platform if they hadn’t used it—merchants that had bank accounts, had been registered with bKash for a while, or did not display strong bKash branding. Therefore, bKash would benefit from implementing a system that identifies such merchants—for example, inactive merchants lacking adequate signage—and then reaches out to them.

- **Improve the speed and reliability of transactions.** One of the most frequent suggestions by SMEs was ensuring that more transactions go through and that transaction settlements are processed faster.

- **Consider increasing the monthly transaction limit.** The limit on merchant payments for microenterprises was most frequently cited by active smaller merchants when they were asked what would motivate them to increase their use of the service. Merchant payments customers also mentioned the limit as a challenge to using the service. Identifying merchants that are regularly reaching the limit and offering to relax the limit for them is key to growing the existing user base.

- **Promote merchant payments for credit or delivery.** Selling goods on credit or for delivery was correlated with microenterprises’ use of the bKash merchant payments platform. However, few merchants were offering these services.
ANNEX: RESEARCH METHODOLOGY

The surveys focused on the use of the bKash electronic payment platform and financial services, including financial behaviors. They also solicited feedback on the value of the services and examined specific characteristics that could explain the adoption and use of the merchant payments service, such as demographics, or prior experience with technology or formal financial services.

The sample of merchants was randomly selected from bKash’s database of merchants registered in all five regions of Bangladesh. Active merchants were oversampled to ensure that the survey provided valuable information: two-thirds of the surveys were conducted with merchants that were actively using the bKash merchant payments platform, with the aim of taking stock of the progress made and any remaining barriers to use in the first months of service. About a third of the surveys focused on merchants that were registered with bKash but not actively using its merchant payments services. Given the sample selection, statistics in the report were weighted when referring to the entire population of merchants; statistics regarding active merchants only were not weighted.

In addition, the study used bKash’s merchant payments transaction data from January through October 2017 to provide a quantifiable measure of merchant activity on the payment platform. Based on this data, the analysis defined three main outcomes: active/inactive accounts—defined as whether a merchant registers any payments in the platform during the study period—number of transactions, and value of transactions.

The study used a linear probability model to test which characteristics correlated with activity levels and changes in activity. First, the analysis estimated the marginal effect of a variety of characteristics on the monthly number of transactions, as well as the monthly value of transactions. The analysis grouped them by theme-related characteristics, namely individual-level characteristics, store-level characteristics, financial access indicators, digital literacy and usage, and bKash-use related indicators. For small merchants, given that the value of transactions was constrained by the monthly ceiling of 15,000 Takas, a tobit model (censored above and below) was estimated.

All regressions included controls by sector, an indicator for merchants that did not register any transactions during the first quarter, and month-fixed effects. The analysis of the number of transactions for small merchants also controlled for whether the merchant reached the monthly limit in the previous month.

Second, the analysis tested whether these characteristics predicted changes in activity by analyzing initially active and inactive merchants separately. Specifically, a regression was done to determine whether the probability that a merchant used the platform after being active (registering at least one transaction) or inactive (registering zero transactions) for a few months was explained by the same characteristics used in the first set of regressions. In order to obtain more robust results—and given that merchant activity varies highly from one month to the next—the same regressions were repeated for multiple definitions of initial activity, using the total number of transactions from January through February, January through March, January through April, January through May, and January through June. That is, the regressions looked at the probability that an initially inactive merchant (for example, from January through February) used the platform in the following months (for example, from March through October).
Endnotes

4. The 2017 Global Findex database defines account ownership as having an individual or jointly owned account either at a financial institution or through a mobile money provider.
6. Ibid.
7. bKash e-wallets operate on a FUNDAMO VISA technology platform and are fully encrypted to ensure secure transactions.
10. All merchants were registered to accept bKash payments.
11. Activity was measured based on transaction data from January through October 2017.
12. This interface used a global data channel called Unstructured Supplementary Service Data (USSD), which was the popular choice for mobile financial services since it was compatible with any type of mobile phone. USSD is a data channel on the Global Systems for Mobiles network, with a menu form of SMS through which customers receive a text menu on their phones instead of a string of words. USSD transports short messages between mobile phones and the network. It provides interactive dialogue between the user and a certain set of applications. Source: FinMark Trust, Mobile Banking Technology Options (2007). http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/finmark_mbt_aug_07.pdf
Credits

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