

# API PRICING FOR DIGITAL FINANCIAL SERVICES PROVIDERS

Getting Started

## Consultative Group to Assist the Poor

1818 H Street NW, MSN F3K-306

Washington DC 20433 USA

Internet: [www.cgap.org](http://www.cgap.org)

Email: [cgap@worldbank.org](mailto:cgap@worldbank.org)

Telephone: +1 202 473 9594

© CGAP/World Bank, 2019

## RIGHTS AND PERMISSIONS

This work is available under the Creative Commons Attribution 4.0 International Public License (<https://creativecommons.org/licenses/by/4.0/>). Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

**Attribution**—Cite the work as follows: Boyd, Mark, Michel Hanouch, and Claudia McKay. 2019. “API Pricing for Digital Financial Services Providers: Getting Started.” Technical Note. Washington, D.C.: CGAP.

**Translations**—If you create a translation of this work, add the following disclaimer along with the attribution: This translation was not created by CGAP/World Bank and should not be considered an official translation. CGAP/World Bank shall not be liable for any content or error in this translation.

**Adaptations**—If you create an adaptation of this work, please add the following disclaimer along with the attribution: This is an adaptation of an original work by CGAP/World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by CGAP/World Bank.

All queries on rights and licenses should be addressed to CGAP Publications, 1818 H Street, NW, MSN F3K-306, Washington, DC 20433 USA; e-mail: [cgap@worldbank.org](mailto:cgap@worldbank.org)

# EXECUTIVE SUMMARY

Digital financial services (DFS) providers face several challenges when developing pricing strategies for open application programming interfaces (APIs). They must balance their own business objectives, including the need to achieve a return on investment, with the needs of API consumers to experiment and learn as they build and grow their businesses. This guide aims to help DFS providers navigate these challenges and devise pricing strategies that do the following:

- **Support the DFS provider to achieve specific business objectives.** Providers should start with clear business objectives and understand which APIs will help them achieve these objectives—and how. The pricing strategy for each API needs to support these objectives. In Zambia and Malawi, for example, DFS provider Zoono's strategy focuses on growing its customer base rather than revenue, hence, its APIs are designed to attract third-party developers who can create products that will attract new customers.
- **Generate business value for each target API consumer segment.** Providers should segment their API consumers and help them to understand the value each segment expects to get from APIs and their willingness to pay. For

example, a corporate or nonprofit organization like Save the Children Fund that is using APIs to reduce inefficiencies might expect to immediately reduce costs and, therefore, be willing to pay right away. In contrast, a fintech or start-up that is using APIs to create new products is taking more risk and may want time to experiment before paying fees.

- **Align with (or modify) prevalent market expectations and norms for pricing.** Providers should try to understand how others are pricing open APIs in their markets and globally. Pricing models vary based on the type of API. MTN Uganda, for example, chose to keep its pricing simple, offering its payment APIs for free, while earning revenue based on the value of the underlying transaction—in line with existing market practices. Where API providers plan to take a different approach to pricing, the new approach should be tested with third-party API consumers before being introduced.

Ultimately, providers will need to make some assumptions and set a price, knowing that pricing will be dynamic and evolve as they learn and as markets develop.

## Introduction

**O**PEN APIs CAN TURN A DIGITAL financial services (DFS) provider’s platform into “digital rails” that facilitate the onboarding of third parties (i.e., the businesses that are the consumers of the APIs) quickly and efficiently (Morawczynski et al. 2016).<sup>1</sup> They enable these third-party businesses to innovate and build new products and services for their customers.

Pricing APIs is different than pricing other DFS products because end customers are one step removed from the provider. DFS providers that offer open APIs need to ensure their API pricing strategies encourage experimentation and leave room for third-party API consumers to build and grow businesses. A good pricing strategy must offer value to third parties while enabling the DFS provider to achieve a return on its investment. Pricing open APIs is new for many DFS providers. They will need to take a dynamic approach to their business models and allow them to evolve over time.

This guide helps DFS providers define a pricing strategy for their API products. It draws from desktop research, industry discussions, and work with CGAP partners to arrive at three goals a successful open API pricing strategy needs to achieve.<sup>2</sup> The strategy needs to do the following:

- Goal 1: Support the DFS provider to achieve specific business objectives.
- Goal 2: Generate business value for each target segment of third-party API consumers.
- Goal 3: Align with (or successfully modify) prevalent market expectations and norms for pricing.

## Goal 1: Support the DFS Provider to Achieve Specific Business Objectives

DFS providers first need to decide which APIs to open and how each of these APIs is intended to help the business achieve its overall objectives.<sup>3</sup>

In the case of merchant payments, the objective is to make the DFS provider’s payment acceptance network as widely available as possible. This would make it easy for customers to use the provider’s mobile wallet wherever they make a purchase and for them to choose the provider’s payments system rather than a competitor’s (or cash). The primary business objective for this API is to increase transactions and market share, not raise direct API revenue. The API product itself is not priced to bring in new income, although the increased use of the expanded merchant acceptance network via APIs increases payment transaction revenue. Zoono’s API strategy, discussed in Box 1, similarly has an initial focus on scale over revenue.

In contrast, the objective for a data API might be to monetize an unused digital asset (such as customer transaction data). In that case, the idea is to generate new revenue streams immediately and, therefore, may involve a per API fee.

In some cases, an API product may create digital access to a service or enable third parties to deliver products that compete with the DFS provider’s traditional core offering. Sometimes, the internal team releasing the API and the team working on a more traditional product are in different business units. As customers may move from the traditional product to the solution enabled by the new API, revenues may shift across the lines of the business or there may even be a net loss to the business. Management will need to address the internal conflicts that result. Senior management will need to determine the impact this shift will have on the business—irrespective of individual key

1 APIs can fall along a spectrum from internal APIs that are reserved for use by developers working within, or on behalf of, the organization only to partner APIs that are made available to selected partners only, to open APIs that are more broadly available. CGAP’s focus is on open APIs. See “Open API Strategies: How to Plan for Success,” CGAP, <https://www.cgap.org/topics/collections/open-apis>.

2 For this project, CGAP is working with five DFS providers and supports them technically and strategically as they go through a process of opening their APIs. The providers are Absa Bank in South Africa, BTPN in Indonesia, MTN Uganda, Wave Money in Myanmar, and Zoono in Zambia and Malawi.

3 For a description of the main types of APIs DFS providers are opening, see Boyd and Hanouch (2018).

### **Box 1. How Zoono Expects APIs to Help Its Core Business<sup>a</sup>**

DFS provider Zoono, based in Zambia and Malawi, offers money transfers, savings wallets, bill payments, and bulk payments for businesses through a network of over 2,500 agents. Most of these transactions are done over the counter. The Zoono team has strong on-the-ground knowledge of local community needs and has built trust with underserved customers. It is acutely aware of pressures from new and established competitors and increasing demands from customers who also have borrowing and spending needs, for example.

“We are committed to keeping agent and customer needs at the center of our innovation and new product design. But we can’t build all of the innovative new products straight away. By opening APIs, we can work with selected third parties to expand the services we offer and make more products available to current and new customers,” says Brett Magrath, co-founder and chief product officer at Zoono. Zoono’s open API strategy focuses on scaling the Zoono customer base. Currently, monetizing APIs is less of a business driver than is strengthening relationships by giving customers more reasons to use Zoono agents and accounts.

a. This information is accurate as of 21 November 2018.

performance indicators and bonuses—and distinguish between short- and long-term revenue implications.

The level of investment and operating costs to open APIs should be proportional to the value of the business objectives being pursued and to the risks involved (e.g., the level of uncertainty in the ultimate uptake and the impact on the business of opening APIs). Estimating the operating costs of providing APIs is a challenge because APIs are a fairly new product for DFS providers in emerging markets. APIs may require providers to invest in new staff expertise, processes, and technology. However, investment costs are controlled by the DFS provider, and given the experimental nature of opening APIs, they generally should keep upfront investment costs low. Zoono kept its costs low by making

minimal fixed investment upfront in its API management platform. It chose a well-established API management infrastructure service that offers a SaaS subscription model. And it selected a basic service package to keep API infrastructure costs low until demand picks up and the basic package no longer serves its needs.

## **ACHIEVING GOAL 1**

1. **Align each API product to a specific business objective.**  
How does the API align with the overarching business objectives? What business objective will the API help achieve? Is the overall goal to generate new revenue directly from the API or is it to primarily drive indirect revenue such as through increased transaction volumes? Is it more important to strengthen the existing customer base or to maximize growth of new customers? Is there a risk of revenue cannibalization, and if so, how can that risk be monitored and managed? And how, if at all, do the answers to these questions differ when considering the short- versus the long-term horizon?
2. **Articulate and agree on financial goals and level of investment that reflect business objectives.**  
Management needs to determine how much it is willing to invest upfront in creating an open API business, and how long it will take to see a return on this investment in line with achieving business objectives. Avoid making big infrastructure investments upfront. Short-term time frames may also be set to define expectations on return on operating costs.

## **Goal 2: To Generate Business Value for Each Target Segment of Third-Party API Consumers**

When DFS providers open up APIs, they are enabling new business partnerships with third parties. Each third-party segment that uses open APIs will have different needs and will perceive the value it receives from the APIs differently. To set the right pricing strategies for the market, providers should have a strong understanding of third-party API consumer segments, the value each segment thinks it will

get from the APIs, and their willingness and capacity to pay. Several pricing experts say that value-based pricing is the most appropriate model for API products.<sup>4</sup>

There are four common third-party segments that might use open APIs:

- **Creators** (e.g., fintechs, start-ups, and independent developers). This third-party segment will want to use DFS provider APIs to create their own products. They need business functionality or data to develop these new solutions. For example, the Nigerian small loans app Paylater uses Paystack's APIs to disburse loans and to allow customers to repay loans.<sup>5</sup>
- **Enhancers** (e.g., small-scale traders and large retailers, utilities, and international businesses). These businesses use APIs to improve, or enhance access to, their products and services.<sup>6</sup> For example, Kenya Power uses Safaricom's APIs to let its customers pay their bills through M-PESA. In Brazil, international accommodation platform Airbnb integrates Elo APIs to enable a local payment option.<sup>7</sup>
- **Efficiency drivers** (e.g., corporations and nonprofits). This segment may want to speed up internal processes and reduce inefficiencies by using APIs. For example, Save the Children Fund uses Beyonic's payments API to reduce costs and risks associated with paying a disperse, remote workforce, while MTN Uganda offers an API for payers to validate whether recipients are active account holders and able to receive funds thus reducing potential time-consuming reconciliation challenges (Beyonic 2016).
- **Aggregators.** Payments aggregators may be considered a specific third-party segment because they can help to widen the reach of APIs to businesses that have limited technology skills and that prefer to pay extra to have the integration

managed for them.<sup>8</sup> Aggregators may also enhance the APIs by adding specific features or other value-added services that are appealing to third parties. For example, Kopo Kopo in Kenya offers loans to its merchants in addition to processing merchant payments.

Each DFS provider will have different target third-party API consumer segments, including some not mentioned here. Each segment has its own expectations of the value it will get from an API, how much it is worth, and how much it would be willing to pay to use the API. As discussed in Box 2, engaging third parties can reveal important insights for DFS providers that can shape their API pricing strategy. Creators, for example, may be building and refining products before revenue is generated and may be taking on high risk. Therefore, they need room to test different options without additional, burdensome cost pressures. Enhancers who use a DFS provider's payments API often focus on the APIs' value in increasing their sales by making payment easier. As a result, they are often able to pass on the transaction costs of using the API to their customers.

For example, PayTM, a payments and e-commerce platform in India, set two pricing levels for its payments APIs.<sup>9</sup> The packages illustrate important differences between its target segments, including different needs and willingness to pay. It has a starter pack that caters to creators—in this case, start-ups and small businesses that accept only in store, face-to-face, payments and only up to the value of 50,000 Indian rupees (about US\$705). PayTM does not charge for these merchant payments, which encourages millions of smaller businesses to accept PayTM in face-to-face situations where cash still dominates, thus exponentially growing the network where PayTM customers can use their accounts. PayTM also builds relationships with these

4 Including, e.g., Simon Kucher & Partners and Software Pricing Partners. Value-based pricing requires prices that are set “based on the value of a product as perceived from the customer’s perspective” (“ft.com/lexicon,” Financial Times, accessed 12 February 2019, <http://lexicon.ft.com/>).

5 See, “Unlocking the Power of Money for All People,” Pay Later, <https://www.paylater.ng/> and “The Pay-stack Developer Documentation,” Paystack, <https://developers.paystack.co/>.

6 This refers to businesses using payment APIs to help their customers pay (or be paid) more easily but it could also involve using a credit-scoring API, e.g., to improve the user experience for borrowers.

7 “What Methods of Payment Does Airbnb Accept?” Airbnb, <https://www.airbnb.com/help/article/126/what-methods-of-payment-does-airbnb-accept>.

8 Payments aggregators allow payment instrument providers (like DFS providers offering mobile money services or banks offering mobile banking) to easily integrate with entities that want to send money to or receive money from end customers (see McKay and Pillai 2016). Aggregators offer two things: Integration services, where they connect the systems of payment instrument providers to third-party systems, and value-added services like notification of successful payments, reconciliation, and receipts.

9 See PayTM pricing, <https://business.paytm.com/pricing/>.

## Box 2. Understanding Target Segments

Pricing consultant Simon-Kucher & Partners worked with a large African bank to explore pricing and value propositions with various target segments. The project was complicated by the fact that the bank was developing an API marketplace whereby it would open its own APIs, while also exposing APIs from third-party API providers (fintechs and others).<sup>a</sup>

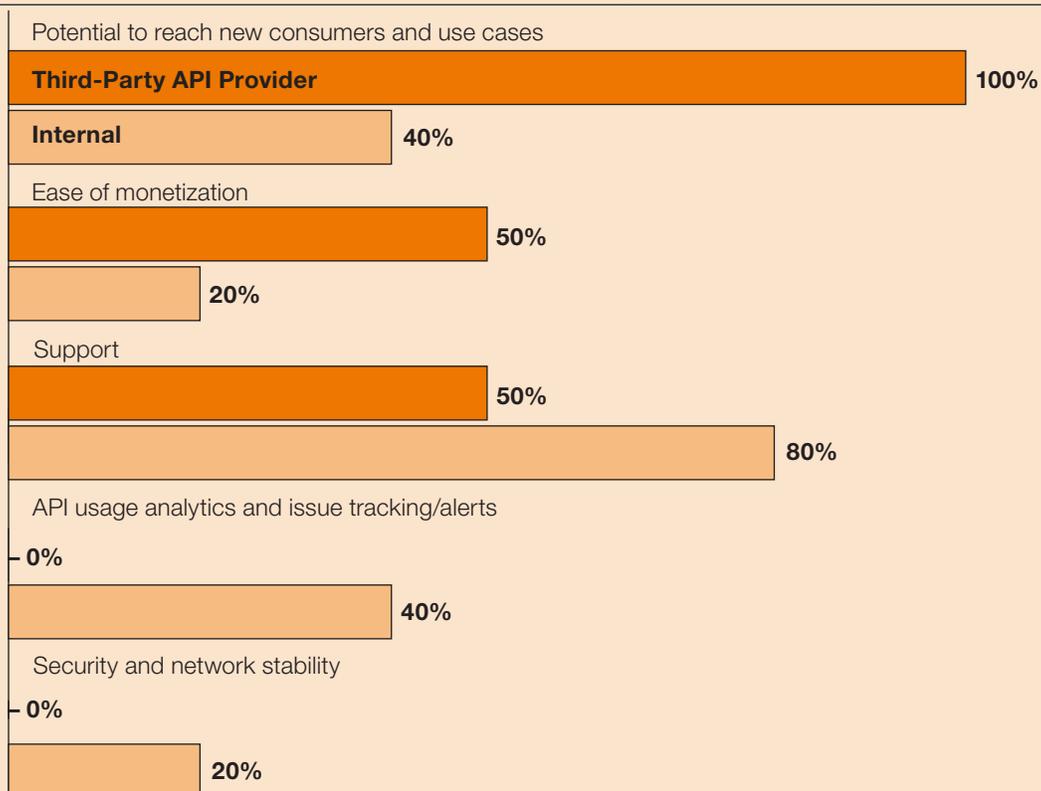
“We received a list of early adopters and current third-party users from the bank. We met with some of these, and sent all of them a short survey,” said Martin Janzen, managing director, Simon-Kucher & Partners, Egypt. “In this instance the bank was developing a marketplace, so we needed to understand demand for consuming APIs from the marketplace, as well as the value from listing their own APIs on the marketplace. We asked them about their need for API products, what value they expected to get from the API to help them in their business goals, and their willingness and capacity to pay for APIs. We also asked

internally at the bank what value the API team thinks it is providing the marketplace.”

The bank was surprised to learn that external partners often perceived value from the marketplace in ways that were different from what the bank was expecting. For example, as shown in Figure B2-1, third-party API providers saw the potential to reach new customers and use cases as being the fundamental factor in helping them decide whether to list their APIs on the bank’s API marketplace. The bank initially thought this was only moderately important and that support and API analytics were most valued. It is important to understand these details when designing a pricing framework that might bundle various features within different pricing options. In this case, API providers might be willing to pay an onboarding fee to be included in the marketplace, or they may be open to revenue-sharing models, whereas they would probably not be interested in paying for additional services like support or analytics at the start.

a. A marketplace approach can help to deliver a more holistic banking-as-a-service offering by including third-party APIs that complement the functionality provided by the bank’s own APIs

FIGURE B2-1. **Third-party API providers who chose the following reasons for joining the marketplace (%)**



Source: Simon-Kucher & Partners

start-ups so that they continue to use PayTM's payments services as they grow. It offers enhancers a separate package, mostly for larger businesses, that provides access to the full suite of payment types, including debit and credit cards and online payments. The package has a consistent pricing structure of 1.99 percent of the customer's transaction value, plus any applicable taxes that are charged by the Indian government.<sup>10</sup>

Efficiency drivers, such as Save the Children Fund, might be able to use a DFS provider's APIs to immediately reduce costs and, therefore, get more value from the APIs straight away. This can translate into a greater willingness to pay for the API.

Lastly, payments aggregators might form part of the API or product distribution strategy. They can help businesses sign on more merchants, billers, and bulk payments partners. Kopo Kopo, which is responsible for signing up and managing more than 10 percent of the total Lipa na M-PESA merchants in Kenya, is one example.<sup>11</sup> A revenue-sharing model might therefore be more appropriate for this segment. For example, the revenue-sharing package might entail a one-off integration fee for aggregators, and after that, they may collect a portion of the transaction fee for payments made through the API. This revenue-sharing model recognizes that payments aggregators can widen the reach of a DFS provider's payments capabilities beyond what a self-service API might achieve. Further, some businesses will be more comfortable working with a payments aggregator to connect to a range of payments services than connecting through each DFS provider directly. For example, Flutterwave's Moneywave enables its API consumers to send money to bank accounts and mobile money wallets in five countries, including 27 banks and three mobile money providers in Ghana.<sup>12</sup>

Understanding the different value drivers for each segment allows providers to set pricing levels for each third-party segment separately and to know whether to create API packages that bundle value-added services. Such services

may include a dedicated relationship manager or higher service levels, additional (premium) APIs, access to the USSD menu as a form of increased visibility, or unlimited API calls.

## ACHIEVING GOAL 2

1. **Identify target third-party API segments.** Review the list of four common third-party segments or create a short list that categorizes the different types of third parties that will potentially use each API product.<sup>13</sup> Generating third-party personas that profile common characteristics of each segment may be helpful and can be used for future third-party engagement strategies.
2. **Engage with representatives from each third-party segment.** Survey or interview third-party API consumers (or potential consumers) from each of the short-listed segments to understand:
  - What their key characteristics and needs are. What value they expect from the API product.
  - What they view as the most important features, and value-added services, of the API solution.
  - Their willingness to pay at various price points.
3. **Compare responses with the internal team's assumptions about pricing and the value third-party API consumers will receive.** The API team should reflect on the responses from the survey or interviews and compare those to internal assumptions about the value third parties are looking for from the API products. Often, early iterations of a pricing strategy will need to be recalibrated as the API team deepens its understanding of third-party needs.

10 See PayTM pricing, <https://business.paytm.com/pricing/> and "Payment Gateway for Your Online Business," PayTM, accessed 15 November 2018, <https://business.paytm.com/payment-gateway>.

11 Ben Lyon, cofounder of Kopo Kopo, Tweet, 2 November 2018, [pic.twitter.com/b4MzyxGD11](https://twitter.com/b4MzyxGD11).

12 See "Moneywave Send Money to People," accessed 8 March 2019, <https://moneywave.gitbook.io/doc/send-money-to-people/banks-and-destinations>.

13 Creators, enhancers, efficiency drivers, and aggregators.

### Goal 3. Align with (or Successfully Modify) Prevalent Market Expectations and Norms for Pricing

Financial API offerings are still new, especially in developing countries, which creates challenges for DFS providers looking for industry pricing norms. There are few proven strategies that providers can use to create their own pricing strategy. While payments APIs are the most common, several other API products are being tested globally by banks and other financial services providers (Boyd and Hanouch 2018). Table 1 provides examples of pricing models for different types of APIs.

Although payments APIs are often provided free of charge, there is a transaction fee based on a percentage of the total payment amount. There is typically no API sign-up or use fee; however, there is a biller commission or merchant service charge (or some variant thereof). This makes it

possible for traders and retailers, for example, to connect to a wide range of APIs to offer additional payment options. The only setup cost for third parties is the internal time and resources required to integrate the API into their systems, which they believe will be offset by the increase in number of transactions from customers making payments using their preferred payment instrument. These third-party businesses can factor in payments fees when setting their own product and service pricing.

In comparison, open credit scoring APIs are in their infancy. Some DFS providers like Safaricom offer credit scoring APIs to selected partners, but at the time of writing, these have not yet been opened and do not have transparent pricing. Equity Bank subsidiary Finserve Africa's Jenga API charges a fixed fee per API call for its aggregated scoring API. Internationally, Experian's Credit Check API in the United States also has a transactional pricing structure

TABLE 1. Examples of pricing models for different types of APIs

Type of API	Pricing model	Example pricing structure	Example DFS providers
<b>Money movement APIs (help me get paid)</b>	Free API but percentage of transactional value charged (sometimes also small nominal fee)	PayTM, India: Free for start-ups and small businesses accepting face-to-face payments up to the value of 50,000 Indian rupees (about US\$705); 1.99% of transaction value for larger businesses and all other payment types	Africa's Talking Moneywave Beyonic Safaricom Stripe Paypal
<b>Data APIs (credit score)</b>	Fee per API call when offered as standalone API	JengaAPI, Kenya: Fixed fee of KES50 (US\$0.48) per API call	Safaricom AadhaarAPI
<b>Data APIs (account balance and transaction history)</b>	Opaque pricing that often requires individual application	Bank Central Asia: 200 Indonesian Rupiah (US\$0.01) per API call JengaAPI; Kenya: free for mini-statement and balance enquire but KES100 (US\$0.96) for full statement	BCA Safaricom Citi Thailand BBVA Mexico Flutterwave Apache Fineract JangaAPI
<b>Ecosystem expansion APIs (account creation or loan origination)</b>	Revenue shared between developer and DFS provider	Lulalend, South Africa: Commission paid to services provider who refers eligible lender	Lulalend BBVA Mexico
<b>Consent/Identify APIs (know your customer [KYC])</b>	Some KYC and authentication APIs are provided for free to partners who use other product APIs from the DFS provider, but when offered as a standalone, API partners are charged on a fee per API call basis	Twilio Authy: Free for fewer than 100 authentications per month; US\$0.09 for any successful authentication above that	AadhaarAPI (Quagga Tech) Inclusive Flutterwave Compliance IndiaStack eKYC

(charge per API call), but again, the pricing levels are not transparent.

Credit application APIs are only beginning to emerge in many markets and are seen as a way to open APIs to third parties that can bring in new customers to a credit provider. When these new customers are approved for credit, the third party that originated the loan receives an affiliate commission payment. Others seek to provide greater value to their partners as a trade-off for sending new referrals. BBVA Mexico, for example, offers a car loan API that aims to help third parties increase their vehicle sales by offering faster loan assessments.

Several other types of DFS-relevant APIs like KYC/identity and account information APIs do not yet have a standard approach to pricing. In Europe, where regulations require banks to make payments and account information APIs available to licensed third parties, there is a stipulation that third parties connect to the API free of charge. It may be the case that banks introduce pricing whereby integrating and onboarding the basic API is free, but pricing may be introduced for advanced features or service levels.

After assessing current pricing norms for specific API products, it is worth considering a provider's position in the wider market landscape. Taking a unique market position with pricing can work against the API product if there are already standard pricing norms. Different approaches to pricing in established markets can be confusing and can reduce the ability of potential third-party consumers to compare API pricing with competitors, thus reducing adoption. Market positioning, market share, and market power will inform the extent to which this is a risk.

## ACHIEVING GOAL 3

1. **Compare current pricing models for API products.** Identify the pricing models of competing products in the relevant market and globally. The CGAP API Dashboard and direct competitor research would be useful.<sup>14</sup>
2. **Consider how to differentiate an API offering from direct competitors.** If a DFS provider intends to price

its APIs in a different way from that of competitors', it must be sure the approach makes sense for the business and for the target third-party consumers. What is the unique value third-party consumers will receive that they cannot get from a competitor's API? DFS providers must consider their market position and power and must validate emerging thinking around pricing strategies with target consumers in each third-party segment.

## Pulling It All Together

A pricing strategy must be tested and iterated on until the market fit is confirmed through market adoption. In many cases, DFS providers are releasing new API products that do not have established business models. Providers will make assumptions about the value to third-party segments and their willingness to pay. As discussed in Box 3, the pricing policy will need to be revisited regularly.

As DFS providers open APIs, their success increasingly will be tied with the success of third-party API consumers. Pricing strategies must aim to generate value for each segment of consumers while ensuring costs of delivering APIs are met over the longer term. Appropriate pricing will encourage these third parties to innovate and grow their businesses, while not putting a heavy burden on start-ups.

<sup>14</sup> CGAP Open APIs Dashboard, <https://cgap.apidashboard.io/>.

### Box 3. An Iterative Pricing Strategy: An Example from MTN Uganda

MTN Uganda, an MNO, released a package of payments APIs. Based on the mapping of its API consumer segments and review of market norms, MTN decided to provide a bundled offering. “We want to offer a basic, free forever, package of APIs for our partners that have low transaction volumes or who are only just starting to integrate our technology into their infrastructure,” said Elsa Muzzolini, general manager of Mobile Financial Services for MTN Uganda. “For now, we will also provide a premium package for free as a way to encourage adoption and to start collecting data on the value and API needs of more diverse partner segments.”

MTN is dividing its basic and premium package by levels of support so that while customers of both packages will have access to the same set of APIs, those on the premium plan will have a dedicated account manager, faster personalized support responses, and preferential commercial rates to access network services like data, USSD, and SMS. Premium API consumers will also get their business listed on MTN’s menus as a form of ecosystem co-marketing. “We will be regularly reviewing how to price, at what level and for what value-add services,” said Muzzolini. “Initially, we will offer both packages for free and after a few months, we will review uptake of the premium package and set pricing accordingly. Following that, we will have a deeper review in six months or so when we can analyze data points on adoption and usage at both the basic and premium levels and look at how our pricing can drive further usage and provide the best value to all of API consumers.”

## References

- Beyonic. 2016. “Saving Money to Save More Children.” Blog post, 18 May. <https://blog.beyonic.com/beyonic-saving-money-to-save-more-children-2732ea48dea4>
- Boyd, Mark, and Michel Hanouch. 2018. “What APIs Are Digital Financial Services Providers Opening?” CGAP blog post, 27 November. <https://www.cgap.org/blog/what-apis-are-digital-financial-services-providers-opening>
- McKay, Claudia, and Rashmi Pillai. 2016. “Aggregators: The Secret Sauce to Digital Financial Expansion.” CGAP blog post, 27 January. <https://www.cgap.org/blog/aggregators-secret-sauce-digital-financial-expansion>
- Morawczynski, Olga, Lesley-Ann Vaughan, Michel Hanouch, and Xavier Faz. 2016. “Digital Rails.” Washington, D.C.: CGAP. <https://www.cgap.org/research/publication/digital-rails>

