EVALUATING BII'S FINANCIAL SERVICES PORTFOLIO

Evaluating the impact of investments in digital financial services: A case study of DPO

Prepared by Genesis Analytics and IPE Global
November 2023

CONTACT INFORMATION

IPE Global Limited

IPE Global House, B-84, Defence Colony, New Delhi, 110024, **India**

www.ipeglobal.com

Genesis Analytics (Pty) Ltd

Office 3, 50 Sixth Road, Hyde Park, **Johannesburg**
WeWork, Fox Court, 14 Grays Inn Road, **London**
3rd Floor, Maryland Mall, 350 Ikorodu Road, Maryland, **Lagos**
4th Floor, West Park Suites, Ojijo Road, Parklands, **Nairobi**

www.genesis-analytics.com

AUTHORS

Aditya Khurana, Adriaan Slabbert, Alyna Wyatt, Anastasia Smith, Genevieve, Shahim, Michael Fuchs, Shezaad Sunderji, Souleima Abdennebi, Sophia Sifuma, Zsofia Kovacs

Contents

Acronyms

AML/CFT .... Anti-Money Laundering/combating The Financing Of Terrorism
BII .... British International Investment
DCC .... Direct currency conversion
DFI .... Development Finance Institution
DI .... Development Impact
DPO .... Direct Pay Online
ESG .... Environmental, Social and Governance
FCDO .... Foreign, Commonwealth and Development Office
FI-DI .... Financial Institution-Development Impact
KYC .... Know-your-customer
LP .... Limited partner
mPOS .... Mobile point of sale
MSME .... Micro, small, and medium enterprises
POS .... Point of sale
PSP .... Payment services provider
QR .... Quick response
SME .... Small and medium enterprise

Executive summary

Rationale and background of the study

In 2019, the Foreign, Commonwealth & Development Office (FCDO) commissioned Genesis and IPE Global to independently evaluate British International Investment's (BII) Financial Institutions portfolio (renamed Financial Services).

The purpose of this evaluation is to better understand the development outcomes and impacts associated with BII's investments in the financial services sector. It consists of two phases, namely an evidence and portfolio-level review completed in 2020 (phase one), and a subsequent series of in-depth case studies (phase two).

The phase one review revealed that digital financial services (DFS) providers made up less than three per cent of BII's portfolio in 2019, but by nature of their business succeeded in reaching a large number of customers.[1] The review also showed that BII was actively investing in DFS businesses. BII made this shift in focus to investments in digital businesses concrete in their 2022-2026 strategy. It states that one priority for investing in financial services is "the transformative power of secure, resilient and suitable digital financial services."[2]

Therefore, the evaluation team identified DFS as an area of interest for an in-depth study.

This report presents the findings of the in-depth case study, exploring BII's investment in Apis Growth Fund I (Apis). The investment was underpinned by the following development impact (DI) thesis:

Box 1: Development Impact (DI) thesis (2015)

> "BII's investment in Apis Fund I will improve access to financial services for underserved individuals and businesses in Africa and South Asia. The investment will specifically support the digital financial service ecosystem, enabling access to mass-market banking in target geographies."

In 2022, BII updated its approach to impact management and introduced the Productive, Sustainable and Inclusive (PSI) framework to inform investments covering its 2022 – 2026 strategy[3] period. Though this framework was not in place at the time of the investment, the aims of the investment in Apis remain well-aligned to the new strategy.

The objective of this report is to understand the potential for DFS to improve access to financial services for underserved individuals, using BII's experience of investing in Apis and their follow-on investment into Direct Pay Online (DPO), a payment service provider offering digital solutions to small businesses, as a case study.

1 Sunderji, S., Nixon Williams, D., Fuchs, M., Wyatt, A., Verrinder, N. (2021). Evaluating CDC's Financial Institutions Portfolio. Genesis Analytics and IPE Global.
2 British International Investment. (2022). 2022-2026 Technical Strategy.
3 British International Investment. (2022). Productive, Sustainable and Inclusive Investment 2022 – 26 Technical Strategy.

DPO products and digital payments generally, are central to facilitating transactions in modern economies and offer multiple benefits which are explored in detail in this report. The key benefits for micro, small and medium enterprises (MSMEs) and other businesses are that digital payments can enable them to:

- Access financial services, specifically those who are excluded from traditional channels;
- Offer their customers more diverse payment options, which could attract new business;
- Serve a wider set of customers, and potentially boosting revenues;
- Pay suppliers and utility bills with greater ease and reliability;
- Reduce the risk of physical theft;
- Reduce the cost of managing their liquidity;
- Ensure better guard against fraud.[4]

For governments, digital payments make it easier to collect, distribute and monitor transaction flows which can lead to greater formalisation of the economy and improvements in tax collection. Besides plugging tax leaks, governments have started pushing for cashless payments to facilitate interoperability and to ensure the effective distribution of aid.[5]

The benefits of digital payments are likely to be sustainable, given that they do not require natural resources to be made, produce less waste, and do not produce air pollution through manufacturing. The impact of electronic waste and increased energy consumption is still likely to be lower than that of cash payment options.[6]

Evaluating the impact of DFS investments: Apis and DPO as a case study

This study aimed to evaluate the impact of BII's investment at the fund level (Apis), the portfolio company level (DPO), and the firm level (DPO's merchants). A number of sources were used to investigate these questions. These include desktop research, interviews with several stakeholders, including members of BII's investment team, senior management at Apis and senior management at DPO. In addition to the above, a survey was conducted on 113 DPO merchants. Note that data only covers the DPO Africa entity, not the whole DPO Group and that the South African entity is part of the DPO group, not the DPO Africa entity.

Specifically, the study was guided by four overarching evaluation questions, presented below, along with key findings and lessons.

QUESTION 1: How has BII's investment in Apis enhanced the private equity fund's investment capacity and processes?

Finding 1.1: BII acted as an anchor investor, which attracted other DFI investors and allowed Apis to attract commercial capital.

BII acted as an anchor investor[7] for Apis, which was a first-time fund manager at the time of the investment. This means that it was easier for Apis to attract other development finance institutions (DFIs) to invest in the fund, as well as to raise funding from private investors.[8] Ultimately, Apis Fund I raised total capital of $287.5 million - BII's investment therefore accounted for just over 10 per cent of the total value raised.[9]

4 Klapper, L. (2017). How digital payments can benefit entrepreneurs. IZA World of Labor, 390.
5 Chaudhuri, R., Cathinji, C., Tayar, G., Williams, E. (2022). Sustaining digital payments growth: Winning models in emerging markets.
6 Global Payments. (2023). Deliver the Sustainable Payment Options Customers Seek.
7 An anchor investor is an experienced investor whose judgment and investment signals venture quality to other investors.
8 Apis management interviews, 2021.
9 Apis Partners. (2023). About Us – Our Story.

Lesson 1.1: BII has the ability to positively shape the development of fund managers. This can mobilise more investment in the funds BII invests in and achieve greater levels of impact.

BII's influence in attracting other DFIs to Apis highlights its ability to effectively mobilise investment, helping funds grow and invest in a wider array of innovative companies. This effect may be particularly powerful in providing financing to companies and private equity funds that do not have a prior track record and are hence marginalised from commercial financing arrangements.

Finding 1.2: BII helped to design Apis' ESG due diligence process, acting as a 'DFI seal of approval' for the fund, which in turn had benefits for DPO.

BII played an important role in helping Apis design and build out its environmental, social and governance (ESG) systems and processes. Apis management stated that this highlighted the fund's commitment to ESG and acted as an important signal to the rest of the market that Apis' ESG processes are aligned with industry best practice.

Lesson 1.2: DFIs providing technical assistance can positively affect the performance of both funds and investees.

BII helped Apis ensure that its ESG due diligence processes were fit and proper, which in turn improved the fund's investment decisions about ESG safeguards.

Recent research shows that embracing ESG safeguards can create value for businesses. Embracing ESG has been linked to better staff retention and improved productivity, the ability to attract talent due to greater social credibility, and a lower cost of capital (although the research on cost of capital was conducted on publicly held companies).[10,11] For this study, whether DPO has experienced these benefits, or how they might have helped DPO drive impact at the merchant level was not investigated. However, a focus on ESG would have supported DPO's expansion due to the factors outlined above.

QUESTION 2: Has Apis' investment in DPO enabled an increase in access to digital financial services for micro, small and medium enterprises (MSMEs)?

Finding 2.1: Apis' investment allowed DPO to enter new markets driven by the development of an inorganic growth strategy and strong AML/CFT and KYC policies.

Apis supported DPO to develop clearly defined policies for anti-money laundering/combating the financing of terrorism (AML/CFT) and know-your-customer (KYC), which made it easier for the company to acquire payment services provider (PSP) licences across Africa.

Apis gave DPO access to a greater level of knowledge about the payments industry and connections to other market players. Through its funding, Apis aided in the development of DPO's inorganic growth strategy, allowing it to move beyond a purely organic growth approach. This included introducing DPO to prospective merger and acquisitions targets. The majority of DPO's acquisitions were ultimately initiated through an introduction by Apis.[12,13] While these acquisitions were not investigated in detail and conclusions cannot be drawn about how the acquisition affected these firms or their customers, Apis' contribution to DPO's inorganic growth strategy led to a dramatic expansion in DPO operations, including expansions into Nigeria and francophone Africa. Overall, since BII's investment, the number of markets with active DPO merchants has grown from 35 countries to 89. This included expansion within as well as outside of Africa.

10 Henisz, W., Koller, T., Nuttal, R. (2019). Five ways that ESG creates value. McKinsey & Company.
11 Lodh, A. (2020). ESG and the cost of capital. MSCI.
12 DPO's acquisitions have included PayGate, PayFast, SiD Instant EFT, Virtual Card Services and PayThru.
13 Crunchbase. (2023). DPO Group – funding, financials, valuation and investors.

DPO also used part of their funding for organic growth. An example of this is that DPO had more development capacity to create solutions which resulted in increased transaction values and the launch of new products.

Lesson 2.1: Backing funds with the required networks and industry knowledge within the market can help drive inorganic growth and access to new markets.

Apis' payments, industry knowledge, ability to facilitate introductions and development of DPO's inorganic growth strategy has helped the company expand its geographical reach and serve more merchants. This was important for DPO's growth – DPO might otherwise have remained a regional player instead of expanding its footprint across Africa and outside of Africa. This highlights the value of investing in funds that have the expertise and connections to drive rapid expansion in their investees. Similarly, backing funds with strong industry knowledge (like Apis' knowledge of AML/CFT and KYC requirements) is crucial to enabling DFS investments to expand quickly across borders.

Finding 2.2: DPO's market expansion has led to an increase in the merchants and transaction value they process, but most merchants remain concentrated in East Africa.

Since BII's investment, the number of active merchants grew from 776 to 2,848, with total transactional values growing from $61 million in 2016 to $184 million in the year to October 2021.[14] It was not possible to determine whether this growth was driven by new merchants or onboarding existing merchants through acquisition.

Fifty-six per cent of DPO's merchants are still located in East Africa as of 2021, mostly in Tanzania (including Zanzibar) and Kenya. Markets in Southern Africa (Botswana, Zimbabwe, Mauritius) and West Africa (Ghana) have also grown but remain small. None of these growing, new markets represented more than 5 per cent of DPO's merchants in 2021.[15] Note that because the data does not cover the whole DPO Group, the South African entity is not included in these findings.

Lesson 2.2: Expansion of digital payments offerings into new markets takes time to scale across a large number of merchants.

DPO has entered a number of new markets (mainly through acquisitions) since BII's original investment in Apis. However, despite expansion across markets it may take time for sizable merchant uptake to take hold in these new markets. While DPO has reached a wide spread of merchants across a diverse set of African countries, active merchant numbers remain low relative to the large number of merchants on the continent and compared to the number of merchants acquired by its major competitors. This may be partly because DPO is a niche player in the hospitality space, it will take time to attract a growing number of merchants in the e-commerce space and to attract clients from the potentially large number of merchants in other industries.

QUESTION 3: How are BII's investments reaching MSMEs and what types of MSMEs are being reached, e.g., by size, sector, income, and gender?

Finding 3.1: DPO's merchants are generally small and MSMEs make up an increasing proportion of the merchant base – they are largely in hospitality and e-commerce, with revenues of less than $70,000 per year and are generally owned by a man or a man together with a woman.

Around two thirds of DPO's merchants are in hospitality-related industries or ecommerce and this share has remained constant. E-commerce was already showing steady growth pre-pandemic and hospitality was showing

14 The data provided by DPO covers only the DPO Africa entity and not the entire DPO Group. The entity does serve some merchants in non-African countries – these made up 8 per cent of active merchants in 2021.

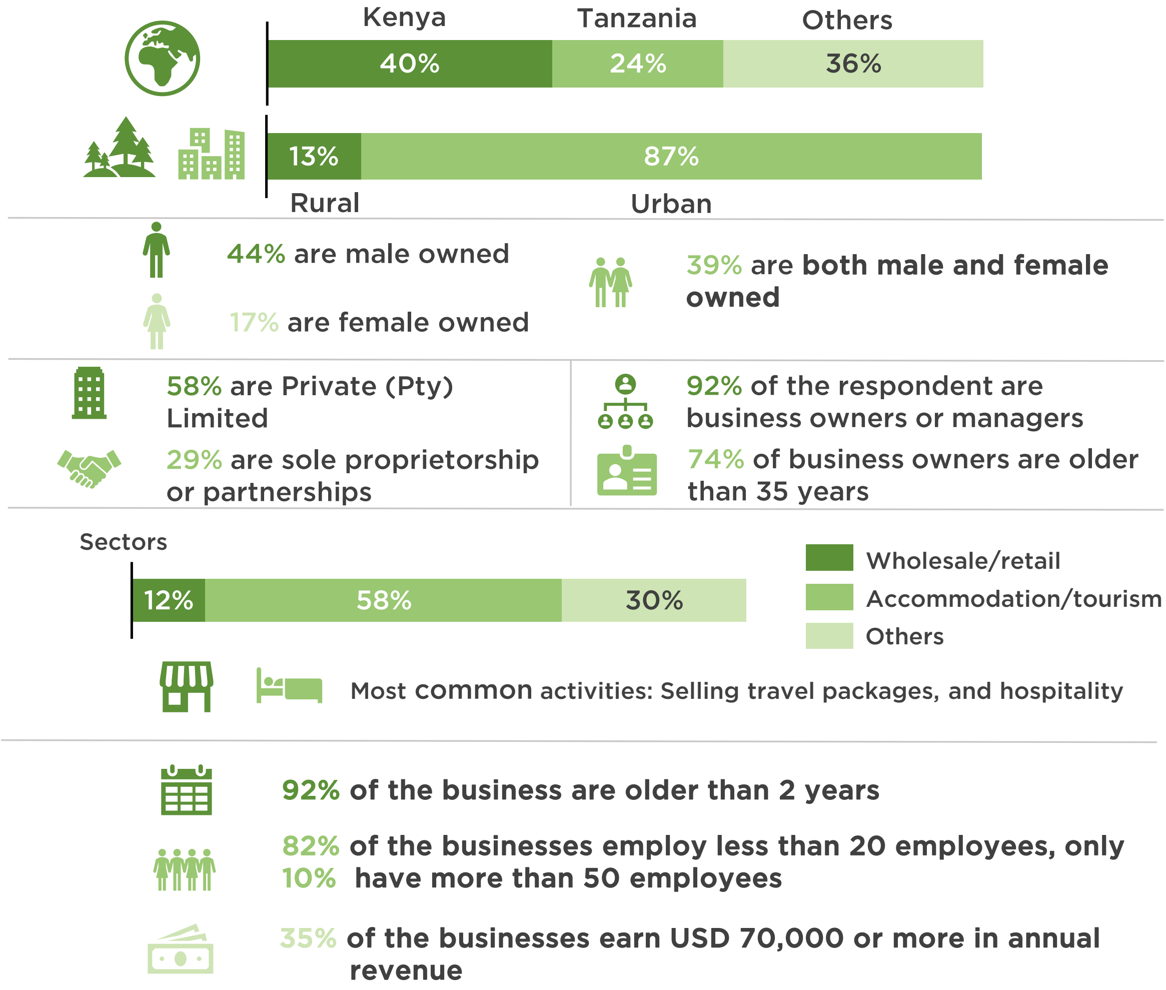
15 DPO internal data, 2021.

a decline, however, the Covid-19 pandemic has accelerated both trends. E-commerce reached 22 per cent of the total in 2021. At the same time, hospitality-related sectors shrunk from 68 per cent in 2016 to 45 per cent in 2021.

DPO's merchant base has grown by 267 per cent and the relative share of SMEs in the merchant base has grown ever larger from 86 per cent in 2016 to 91 per cent in 2021.[16] This is broadly positive from an inclusion perspective, as it indicates a larger number of small businesses being able to access digital payments. This is also an indication that there has been some mainstreaming of digital payments which shows promise in terms of improving access for underserved individuals and achieving this at scale.

The survey of DPO merchants enabled an analysis of their size, the sectors in which they operate, and their ownership structures as highlighted in the figure below.

Figure 1: A profile of DPO merchants from survey responses



Source: DPO merchant survey, 2022

The survey results are broadly aligned with DPO's data – 65 per cent of merchants have annual revenues of less than $70,000. Similarly, the survey results (58 per cent in accommodation/ tourism) are aligned to DPO's data that found that between 45 and 67 per cent of merchants operate in a hospitality-related field (dependent on year).

16 DPO classifies merchants that process less than $100,000 per year through its service as SMEs

Seventeen per cent of merchants were female-owned, with 39 per cent reporting being both male and female owned, and the remaining 44 per cent being male-owned. The female-ownership share is lower than the national female-ownership share for SMEs in both Kenya (about 33 per cent for formal SMEs) and Tanzania (about 48 per cent of non-farm enterprises), although the survey's small sample size of 113 out of 2,848 merchants may make a direct comparison unrepresentative.[17,18]

Lesson 3.1: There is room to continue investing in African FinTech, particularly with an aim to diversify the sectors served.

Investments in fintech in Africa remain small. KPMG estimated that global investment in fintech in 2021 amounted to $210 billion or about 0.22 per cent of global GDP.[19] In Africa, this figure was just over $2 billion, or about 0.07 per cent of the continent's GDP.[20] Hence, despite growth in recent years investment in fintech in Africa remains relatively small. This implies that there is opportunity for further investment in African fintech.[21] To date most investment in African fintech has been in the payments area, and there would seem to be an opportunity for expanding investment in areas such as lending, KYC, SME management software, and decentralised finance.[22]

QUESTION 4: What is the impact of the payment services provided by DPO on MSMEs?

Finding 4.1: Merchants have shifted to digital payments, but cash usage remains high.

Since becoming DPO merchants, use of card payments has grown from 34 per cent to 75 per cent for retail customers and 60 per cent for business customers,[23] while bank transfers have grown from 65 per cent pre-DPO to 73 per cent for retail customers and 82 per cent for business customers. However, mobile money usage for accepting payments from retail customers has only grown from 52 to 57 per cent.

The 41 per cent increase in card acceptance is striking. While merchants mentioned substantial use of bank transfers before using DPO, suggesting a reasonably high level of formal, bank account inclusion, it appears that merchants were largely using bank accounts to receive money, rather than to avail themselves of digital payment services, such as point-of-sale devices. DPO, therefore, has enabled them to unlock new ways of accepting payments.

The use of bank transfers to make payments has increased from 65 per cent to 84 and 88 per cent for paying suppliers and salaries respectively. There has also been an increase in the use of mobile money to pay utilities.

Although DPO has helped merchants to make and receive more digital payments, it is clear that cash payments still play an important role with digital payment methods complimenting rather than replacing cash.

Lesson 4.1: Additional interventions by a diverse set of stakeholders would be needed to shift behaviour away from cash.

Survey findings highlight that more can be done to drive the acceptance and usage of digital payments in DPO's markets. Interventions could take place on the supply and the demand sides of the market, as well as through changes in the regulatory environment. Examples of interventions include making digital payments more accessible and affordable for both consumers and merchants, encouraging higher levels of account ownership, and addressing certain foundational factors like robust information

17 International Finance Corporation. (2021). Sourcing2Equal Kenya: Barriers and Approaches to Increase Access to Markets for Women-Owned Businesses.
18 World Bank. (2022). Tanzania Economic Update 17 Final Report: Empowering Women - Expanding Access to Assets and Economic Opportunities. Tanzania economic update; issue no. 17 Washington, D.C, World Bank Group.
19 Ruddenklau, A. (2022). The Pulse of FinTech H2'21. The Pulse of Fintech; KPMG.
20 Fintech Global. (2022). FinTech investment in Africa nearly quadrupled in 2021, driven by PayTech and Lending deals.
21 It should be noted that BII does have other online payment investments across Africa and Asia.
22 Njanja, A. (2022). Fintechs in Africa continue to overshadow all startups in funding gained. Tech Crunch.
23 Note that the question on usage before DPO was not split up by business/retail customers and so this is the average usage before DPO.

and communications technology infrastructure.

A recent survey of fintech and financial services players across Africa highlighted the importance of enabling factors for digital payment growth (and the challenges arising from their absence).[24] In particular, low digital literacy, low levels of internet penetration and unsupportive regulatory policies are key challenges facing fintech growth. Against this backdrop, it is understandable that small merchants across Africa default to immediate settlement in cash, despite the underlying, hidden costs (such as guarding against theft, fraud, and broader cash management costs like having to deposit cash into a bank account).

Addressing these factors will depend on intervention by a diverse set of stakeholders, including regulators, policymakers, and providers of funding such as DFIs.

Finding 4.2: Merchants reported higher profitability, expectations of faster sales growth in future and improved security and convenience while transacting.

While only 24 per cent of merchants reported annual sales growth of more than 15 per cent before joining DPO, 40 per cent reported that sales growth currently exceeds 15 per cent each year, with 63 per cent expecting growth above 15 per cent next year. Given that respondents may also use other digital platforms, the impact due directly to DPO is difficult to disentangle. Sales growth can also be affected by various factors, however, a sizable share of respondents (42 per cent) felt that their sales would not have grown at the same rate without DPO, in contrast to the 28 per cent who felt that sales would have grown at the same rate.

Merchants generally agreed that DPO has had a positive effect on their overall business profitability with 72 per cent indicating that their profitability increased after using DPO, although this may be a result of other factors. Despite the reported increase in profitability, there was no equivalent reported change in taxes paid for most respondents, with only 29 per cent of respondents reporting an increase. An increase in tax payments can indicate increased formalisation where a business starts paying tax where they were not before. Thus, the fact that only 29 per cent of merchants reported an increase in tax payments may indicate that either the reported increases in profitability were marginal or that using DPO products had not necessarily resulted in increased formalisation of these businesses.

Sixty-one per cent of respondents felt that using DPO's products had improved cashflow. Furthermore, 84 per cent of respondents highlighted added security and 87 per cent referred to the added convenience they associate with using DPO's products.

Fourteen per cent of businesses indicated that they were able to create new jobs due to using DPO products and 24 per cent indicated that they were able to hire more skilled labour. This indicates that, for these businesses, using DPO products created an increase in profitability that resulted in business growth. However, these businesses were in the minority which suggests that the increases in profitability arising due to more efficient payment processing were generally not large enough to expand operations. Further, only 28 per cent of merchants indicated that DPO had helped reduce costs.

Lesson 4.2: While digital payment services clearly benefit merchants – there is room for additional support in driving small business development.

In the most cases, merchants did not react to the introduction of digital payments by adding to the number of their employees. For small merchants, any change in employment was more unlikely. This is consistent with similar findings of limited impact on costs and taxes. While merchants did report that digital payments brought well-documented benefits in terms of transaction security and convenience as well as prevention of fraud, it is unlikely that on their own digital payments could drive the substantial business expansion needed to justify recruiting more employees.

24 Arttha. (2021). Fintech in Africa: a 2021 outlook.

1 | Introduction

1.1 Study rationale

In 2019, the Foreign, Commonwealth & Development Office (FCDO) commissioned Genesis and IPE Global to independently evaluate British International Investment's (BII) Financial Institutions portfolio (renamed Financial Services).

The purpose of this evaluation is to better understand the development outcomes and impacts associated with BII's investments in the financial services sector. It consists of two phases, namely an evidence and portfolio-level review completed in 2020 (phase one), and a subsequent series of in-depth case studies (phase two).

The phase one review revealed that digital financial services (DFS) providers made up less than three per cent of BII's portfolio in 2019, but by nature of their business succeeded in reaching a large number of customers.[25] At the time of the review BII was actively increasing its investment in DFS businesses. BII announced this shift in focus to investments in digital businesses in their 2022-2026 strategy. The strategy states that one priority for investing in financial services is "the transformative power of secure, resilient and suitable digital financial services".[26]

On this basis, the evaluation team identified digital financial services as an area of interest for an in-depth study. The objectives of this report are to understand the potential for digital financial services to improve access to financial services for underserved individuals, using BII's experience of investing in Apis and Apis' follow-on investment into Direct Pay Online (DPO) as a case study. This report presents the findings of the in-depth case study, exploring BII's investment in Apis Growth Fund I (Apis).

At the time of the investment, BII (formerly Commonwealth Development Corporation) used the financial institution-development impact (FI-DI) framework (see more on this in Section 2.3). In 2022, BII updated its approach to impact management and introduced the Productive, Sustainable, and Inclusive (PSI) framework to inform investments covering its 2022 – 2026 strategy period.

Box 2: BII's current approach to investment[27]

Through its investments BII aims to support development that is:

Productive - helping the productivity of an economy to ensure a decent standard of living for all.

Sustainable - helping to transform the economy, reducing emissions, and protecting the environment while allowing for adaptation to climate change.

Inclusive - allowing the gains from productivity and sustainability to be shared with poor, marginalised sections of society.

This framework allows BII and FCDO to ensure that investments remain aligned to strategic priorities. Each of the above strands contributes to an overarching Impact Score for each investment. Within each strand, BII focuses on a number of underlying sub-criteria. These are detailed in its latest Investment Policy, which spans 2022 to 2026.

25 Sunderji, S., Nixon Williams, D., Fuchs, M., Wyatt, A., Verrinder, N. (2021). Evaluating CDC's Financial Institutions Portfolio. Genesis Analytics and IPE Global.
26 British International Investment. (2022). Productive, Sustainable and Inclusive Investment 2022 – 26 Technical Strategy.
27 British International Investment. (2021). Investment Policy for the period from 1 January 2022 to 31 December 2026.

1.2 Context

Across both developed and developing markets, the share of total transactions paid for in cash has declined over the past decade, with developed markets generally leading their developing counterparts in this regard. The Covid-19 pandemic accelerated this trend, with both advanced and emerging economies displaying a noticeably faster shift away from cash than before the pandemic – although it is unclear whether this pandemic-induced shift will be permanent.[28]

Digital payment methods are central to facilitating transactions in modern economies and offer multiple benefits. They provide the ability to make and receive payments safely, securely, conveniently, cost effectively and efficiently which is a crucial facet in ensuring timely payment for delivery of goods and services in a modern, globalised economy.[29] Digital payments also reduce the costs of distributing, replacing, and storing cash, which can be substantial.[30] For governments, digital payments make it easier to collect, distribute and monitor transaction flows which can lead to greater formalisation of the economy and improvements in tax collection. Besides plugging tax leaks, governments have started pushing for cashless payments to facilitate interoperability and to ensure the effective distribution of aid.[31] The increased usage of digital financial services typically lowers the cost of digital transactional platforms for both the provider/financial institution and the customer and helps to increase outreach and usage.[32]

Digital paper trails and record keeping can generate data that is useful for multiple audiences. For example, payments data offers insights into customer behaviour and needs which can enable businesses and financial institutions to deliver personalised products using digital services.[33] Using their digital identity, individuals and businesses can build a financial history that enables them to be credit scored.[34] This is particularly crucial for micro, small and medium enterprises (MSMEs) in Africa as they can be credit scored for the first time and thus receive finance where they may not have been able to before.[35]

Digital payments can also enable MSMEs and other businesses to:

- offer their customers more diverse payment options (which could attract new business);
- pay suppliers and utility bills with greater ease;
- reduce the risk of physical theft;
- reduce the cost of managing their liquidity; and
- better guard against fraud.[36]

Digitalisation is particularly crucial for African MSMEs since adopting digital financial services can improve efficiency, reduce costs, and increase competitiveness. For example, technologies can be used to automate repetitive tasks, such as accounting and inventory management, which can save time and money, and improve transparency.

It is hoped that the shift to digital payments can help spur economic growth through increased income for households and enabling more households to start a new business. Such outcomes would arise were digitalisation to result in the reduction of transaction costs and lower borrowing constraints.[37]

28 Bank for International Settlements, Committee on Payments and Market Infrastructures. (2021). Covid-19 accelerated the digitalisation of payments. BIS.

29 Though digital payments are well-established between international institutions, this study is particularly concerned with digital payments between small businesses and individuals.

30 Assoko, J., T-L. (2020). Mastercard "In Africa our biggest competitor is cash". The Africa Report.

31 Chaudhuri, R., Cathinji, C., Tayar, G., Williams, E. (2022). Sustaining digital payments growth: Winning models in emerging markets.

32 Lauer, K., Lyman, T. (2014). Digital financial inclusion. World Bank.

33 Habersetzer, A. (2021). Why payments data is the key to unlocking customer value. Ernst & Young.

34 Puri, M., Burg, V., Gombovic, A., Berg, T. (2018). Digital footprints and credit scoring. Vox EU.

35 Powercred. (2023). SME digitisation and improving access to credit for small businesses.

36 Klapper, L. (2017). How digital payments can benefit entrepreneurs. IZA World of Labour.

37 Dubey, T.S., Purnanandam, A. (2023). Can cashless payments spur economic growth?

Although digital payments are growing globally, they represent only a fraction of total payments on the African continent, where cash accounts for more than 90 per cent of all payment volumes.[38] This is in contrast to developed markets – a survey by the European Central Bank shows that cash was used for 59 per cent of point-of-sale transactions in 2022.[39] Similarly, while 50 per cent of adults in sub-Saharan Africa had made or received at least one digital payment in 2021, this figure was 95 per cent for high income countries.[40] Given this disparity, large swathes of small businesses and households across Africa are unlikely to enjoy the benefits of digital payments, which limits their access to the potential benefits outlined above.

Although the benefits of digital payments are clear, a potential downside is platform downtime which can affect sales if customers are unable to make purchases. Another downside is the security risk that comes with digitisation such as hacking and cyber-attacks, phishing scams, data breaches, tracking of consumer behaviour, and unauthorized access to financial information.[41]

The slow shift to digitalisation in many African countries can be partly attributed to governments and banks failing to effectively bring individuals and businesses into the digital system. Traditional banks have been slow to digitise their operations and offerings because they usually run multiple legacy systems that have been patched together over the years, and because they have separate divisions that work in silos.[42] Such factors block progress to digital transformation and prevent banks from rolling out tech-savvy services.

Governments have been slow to support digitalisation. They have failed to fully develop digital infrastructure (especially in remote areas), and often have not set up regulatory frameworks or supported the development of digital innovations and digitalisation policies.[43] Financial innovation and fintech solutions are generally seen as a growth engine in Africa, but delayed and confusing regulation has sometimes hindered progress. Many startups get around these problems by forming strategic relationships with existing players who have the required licenses.[44] The importance of progressive regulations is coming to light and some African governments are already implementing policies that enable greater use of digital services.[45] Examples of this are the introduction of regulatory sandboxes in Kenya, Nigeria and Ghana.[46] Under a supportive regulatory and business environment, fintech solutions present an opportunity to reach the digitally and financially underserved population.

Against this backdrop, British International Investment (BII) has sought to enhance access to financial services for underserved businesses and individuals across Africa and South Asia. In pursuing this aim, in 2015, BII invested $30 million in Apis Growth Fund I, a United Kingdom-based private equity fund manager with a focus on financial services.[47]

38 Botta, A., Fjer, A., Gold, E., Amaah Ofosu-Amaah, N. Seshie, E. (2022). The future of payments in Africa. McKinsey & Company.
39 European Central Bank. (2022). Cash remains the most frequently used means of payment in stores, but electronic payments grow further.
40 World Bank Global Findex, 2021.
41 Gundaniya, N. (2023). Security and privacy concerns in digital payments. Customer Think.
42 De Gray Birch, A. (2021). Why big banks are threatened and how they can fight back. Tech Central.
43 Thottoli, V. (2023). SME digitalisation.
44 Oladunmade, M. (2022). How African fintechs can achieve regulatory compliance. Tech Cabal.
45 Guermazi, B., Pickel, B., Kone, L. (2022). Equipping Leaders with the Tools for Digital Transformation. World Bank.
46 Descazeaud, A. (2023). Regulatory sandboxes in Africa. Open Banking Project.
47 This investment represented a 10.5 per cent share of the fund's USD 287 million size.

This investment was underpinned by the following development impact (DI) thesis:

Box 3: Development Impact (DI) thesis (2015)

"BII's investment in Apis Fund I will improve access to financial services for underserved individuals and businesses in Africa and South Asia. The investment will specifically support the digital financial service ecosystem, enabling access to mass-market banking in target geographies."

Following BII's investment in Apis, Apis received further investment from other commercial capital providers and ultimately raised total capital of $287.5 million – BII's investment therefore accounted for just over 10 per cent of the total value raised.[48] The fund made multiple investments which included an investment of $25 million to buy a majority equity-stake in DPO, a payment services provider with headquarters spanning Kenya, South Africa and Ireland.[49] DPO offers digital solutions to small merchants and thus has a role in reaching the underserved population on the continent. The financial institution-development impact (FI-DI) framework articulating this investment is provided in the Annex.

Given that BII's investment in Apis (and Apis' subsequent investment in DPO) occurred in 2015, the latest Investment Policy (see Box 2) was not in effect at the time of the investment. However, the aims of the investment remain well-aligned to the overarching impact focus areas. Digital payments have the potential to enable growth for small businesses by allowing them to serve a wider set of customers, potentially boosting revenues. The benefits of digital payments are likely to be sustainable, given that they do not require natural resources to be made, produce less waste and do not produce air pollution through manufacturing. The impact of electronic waste and increased energy consumption is still likely to be lower than that of cash payment options.[50] The benefits of digital payments and DPO's solutions are inclusive as they offer access to financial services for businesses that are excluded from traditional options. Box 4 introduces DPO and its offerings.

Box 4: An introduction to DPO

DPO's aim is to offer small and medium enterprises (SMEs) and larger companies the ability to make and receive payments, both locally and across borders, through different methods, including card, mobile money, and e-wallets.[51] DPO offers a variety of products and services to achieve this. Its most used product is its online gateway, an online payments' service that acts as a channel to make and receive online payments.[52] The company also offers a mobile point of sale (mPOS). In addition, DPO's online fund transfer service allows consumers and merchants to make online payments directly from their bank accounts. Furthermore, its DumaPay app allows merchants to accept card, mobile money or QR payments on a mobile device. DPO also offers virtual and prepaid cards, as well as a real-time settlement option for its merchants (which allows newly acquired funds, i.e., those that the merchant has just received from a transaction, to reflect in the merchant's bank account immediately, rather than taking 24 hours or more to reflect), along with cash advances through its EasyAdvance credit offering. The company's direct currency conversion (DCC) offering allows foreign customers to pay in their own currency rather than the currency of the local market, with conversion between the two currencies done automatically. Finally, DPO offers an e-commerce solution, which allows small businesses to create a basic online store with the ability to accept online payments.

48 Apis Partners (2023). About Us: Our Story.
49 Apis exited its position in DPO in late 2021.
50 Global Payments (2023). Deliver the Sustainable Payment Options Customers Seek.
51 DPO Group (2023). About Us.
52 An explanation of how payment gateways functions can be found here.

1.3 Purpose and method

The purpose of this study is to evaluate the impact of BII's investment at the fund level (Apis), the portfolio company level (DPO) and the firm level (DPO's merchants). Specifically, the study was guided by four overarching evaluation questions, which are shown in the table below.

Table 1: Key evaluation questions

#	Question
1	How has BII's investment in Apis enhanced the private equity fund's investment capacity and processes?
2	Has Apis' investment in DPO enabled an increase in access to digital financial services for MSMEs?
3	How are BII's investments reaching MSMEs and what types of MSMEs are being reached e.g., by size, sector, income, and gender?
4	What is the impact of the payment services provided by DPO on MSMEs?

Various sources were used to investigate these questions. Desktop research was used to understand DPO and its context. A number of stakeholders were interviewed, including members of BII's investment team, senior management at Apis and senior management at DPO. These interviews provided important insight into the underlying impact of the investment. Data shared by DPO spanning 2016 to October 2021 was analysed to understand DPO's performance and draw out initial findings around DPO's possible impact on its merchants.

In addition to the above, a survey of merchants was conducted. The survey explored the merchants' usage of digital payments, perceptions of DPO's products, the challenges the merchants face, and the impact of DPO's products on their businesses. The survey was administered both online and through telephone interviews. Initially, DPO shared a link to the online survey platform with 2,751 active merchants and sent two-weekly follow-up emails to remind merchants to complete the survey. The survey received 72 responses, a response rate of 2.6 per cent. To increase the number of responses, the evaluation team enlisted enumerators from Tanzania and Kenya (DPO's two largest markets by customer numbers) to administer the same survey telephonically, using contact details for 433 merchants. The enumerators' efforts added a further 41 responses to the survey (a response rate of 9.5 per cent), bringing the total to 113.

As noted below, there were a few limitations to the study:

- It was not possible to independently verify the accuracy of DPO's data - the data was assumed to be accurate as provided. There may be inaccuracies in the data due to data collection, documents and calculation errors.
- The data DPO provided only covered the DPO Africa entity, not the DPO Group, which includes DPO Africa, DPO Paygate, and Payfast[53]. (BII's investment through Apis covers the whole DPO group.) These additional entities operate in Africa, so the data provided an incomplete picture of the DPO Group's presence across Africa.
- The number of responses received on the merchant survey (113) does not represent a statistically significant sample compared to the number of active DPO merchants in 2021 (2,848 identified in DPO's data).[54]
- It was not possible to verify the accuracy of the survey data as the responses were self-reported. There may be some acquiescence bias which is where respondents tend to respond in agreement. This can lead to overestimating the positive outcomes and can make it difficult to attribute outcomes solely to the use of DPO's products.
- It was not possible to identify a baseline or undertake counterfactual analysis which makes it difficult to attribute effects solely to BII's investment or to the use of DPO's products.
- In addition, the telephone portion of the survey focused on Kenya and Tanzania (including Zanzibar), while the online portion could reach a wider array of markets.55 The responses gathered may therefore be skewed towards Kenya and Tanzania. On the other hand, these two countries do represent two of DPO's largest markets by customer numbers.
- During the data collection phase of the study, DPO was in the process of being acquired by Network International, which limited the company's responsiveness and ability to support the evaluation team in contacting merchants.

These limitations do not negate the validity of the study, but do add caveats, particularly around the survey given the low response rate.

53 These are payment processors in Africa.

54 A statistically representative sample would have included 339 completed survey responses. The 113 responses received represents a 9 per cent margin of error at a 95 per cent confidence interval.

55 The survey results include responses from 15 different markets.

2 | The outcomes of BII's investment

2.1 Changes for Apis and DPO

Discussions with BII's investment team and the management teams from Apis and DPO provided important insights for this study, particularly on the impact of BII's investment at the fund and company levels. This section presents findings from those discussions.

Although Apis' reputation as a financial services investor has since grown, when BII made its investment into Fund I, it was an investment into a first-time fund manager. As one of Apis' first limited partners (LPs), BII acted as an anchor investor, meaning that BII's presence helped encourage other LPs to participate. Specifically, BII's role as an anchor investor helped attract other development finance institutions (DFIs) to the fund, and therefore constituted an important step in building Apis' reputation.[56,57] This in turn made it easier for Apis to reach out to providers of commercial capital for both Fund I and subsequent funds, which was part of Apis' long-term strategy.

In addition to capital, BII played a key role in the design of Apis' environmental, social and governance (ESG) due diligence process and the parameters that Apis focuses on, even though it did not aim to influence Apis' investment strategy directly. BII's input in this regard acted as a signal to the market that Apis' ESG-related processes are fit and proper, thus highlighting the fund's commitment to ESG.[58] Apis now monitors ESG risks across all of its portfolio companies, including DPO.

DPO also sought to comply with a number of ESG requirements, particularly around governance.[59] This bolstered DPO's HR policy by incorporating provisions for equal opportunities and reporting of misconduct. In addition, governance achievements have included DPO creating a policy requiring their subcontractors to adhere to the company's social and environmental requirements and ensuring that the company remains payment card industry compliant, guaranteeing the protection of client data.

56 Apis management interviews, 2021.

57 Other investors in Apis Growth Fund I include, but are not limited to, the African Development Bank (AfDB), the Netherlands' FMO, Switzerland's SIFEM and Sweden's Swedfund, as well as private investors.

58 This quote comes from interviews with Apis.

59 Apis Growth Fund I, DPO ESG & Impact report, 2019.

Table 2: Lessons: BII's influence on Apis

QUESTION 1: How has BII's investment in Apis enhanced the private equity fund's investment capacity and processes?
Lesson 1.1: BII has the ability to positively shape the development of fund managers. This can mobilise more investment in the funds BII invests in and achieve greater levels of impact. BII's investment into Apis attracted other LPs, including other DFIs. Apis emphasised the importance of BII's investment in allowing it to reach out to commercial capital providers, both for Fund I and subsequent funds. BII effectively mobilised investment, allowing Apis to reach larger size and execute a wider array of investments in innovative companies. This effect was particularly powerful in providing financing to an equity fund that had no prior track record and would not otherwise have been able to access commercial financing arrangements.
Lesson 1.2: DFIs providing technical assistance can positively affect the performance of both funds and investees. BII's role in shaping Apis' ESG due diligence processes supported the fund in ensuring that its processes became ESG compliant so that the fund's investment decisions take proper cognisance of ESG concerns. Apis' ESG interventions may have improved DPO's performance. Research suggests that ESG compliance can create business value. Embracing ESG has been linked to better staff retention and improved productivity, the ability to attract talent due to greater social credibility, and a lower cost of capital (although the research on cost of capital was conducted on publicly-held companies).[60,61] This study did not investigate whether DPO experienced these benefits, or how they might have helped DPO drive impact at the merchant level. However, a focus on ESG would have supported DPO's expansion due to the factors outlined above.

Apis also made a strong contribution to DPO by providing technical assistance. Apis supported DPO in developing clearly defined policies for anti-money laundering/combatting the financing of terrorism (AML/CFT) and know-your-customer (KYC). This further boosted DPO's growth since it made it easier for DPO to acquire payment services provider (PSP) licences across Africa. Similarly, Apis' position as a UK-based private equity firm gave DPO added credibility when DPO approached regulators, where Apis also provided a good deal of support.

Apis gave DPO access to a greater level of knowledge about the payments industry and connected DPO with other market players. Through these connections and its funding, Apis aided in the development of DPO's inorganic growth strategy, allowing it to move beyond a purely organic growth approach. Without this inorganic growth, DPO's rate of expansion would have likely been a lot slower. The support provided by Apis included introducing DPO to prospective merger and acquisitions targets with the majority of DPO's acquisitions ultimately being initiated through an introduction by Apis.[62,63] While these acquisitions were not investigated in detail and conclusions cannot be drawn about how the acquisition affected these firms or their customers, it is clear that Apis' contribution to DPO's inorganic growth strategy led to a significant expansion in DPO operations, including expansion into Nigeria and francophone Africa.

60 Henisz, W., Koller, T., Nuttal, R. (2019). Five ways that ESG creates value. McKinsey & Company.
61 Lodh, A. (2020). ESG and the cost of capital.
62 DPO's acquisitions have included PayGate, PayFast, SiD Instant EFT, Virtual Card Services and PayThru.
63 Crunchbase. (2023). DPO Group – funding, financials, valuation and investors.

While inorganic growth can be risky, bring additional management challenges and come with the large upfront cost required to acquire,[64] having an inorganic growth strategy is particularly important for a digital financial services company. This is because the business model of fintech relies on rapid growth, as earnings depend on fee income on transactions, and having a large base of users is key to profitability. Thus, companies aim to reach customers before their competitors amid an ever changing and expanding competitor landscape. The market leaders in the industry have scaled up and reached a large base of users quickly and this is why acquisition of firms with an existing customer base is beneficial.[65]

DPO also used part of its funding for organic growth. An example of this is that DPO had the capacity to create solutions for smaller merchants as well as for bigger companies resulting in the launch of new products and increased transaction values.

Table 3: Lesson: Apis' influence on DPO

QUESTION 2: Has Apis' investment in DPO enabled an increase in access to digital financial services for micro, small and medium enterprises?
Lesson 2.1: Backing funds with the required networks and industry knowledge within the market can help drive inorganic growth and access to new markets. Apis' payments industry knowledge, ability to facilitate introductions and development of DPO's inorganic growth strategy has helped the company expand its geographical reach and serve more merchants. This was important for DPO's growth – DPO might otherwise have remained a regional player instead of expanding its footprint across Africa and outside of Africa. This highlights the value of investing in funds that have the expertise and connections to drive rapid expansion in their investees. Similarly, backing funds with strong industry knowledge (like Apis' knowledge of AML/CFT and KYC requirements) is crucial to enabling DFS investments to expand quickly across borders.

64 Asokan, N. (2023). The pros and cons of inorganic growth explained. Agicap.
65 McKinsey & Company. (2022). Fintech in Africa: The end of the beginning. McKinsey & Company.

2.2 Changes for DPO and its merchants

2.2.1 A closer view of DPO

As explored above, Apis' investment in DPO allowed the company to expand its reach. The table below shows that, since the investment, DPO has entered new markets and grown its merchant numbers, overall transaction values processed, and number of employees.

Table 4: DPO overall metrics

Metric	2016 (whole year)	2021 (to October)
Countries of operation	35	89
Number of active merchants	776	2,848
Total transaction value processed	$60.6 million	$184.1 million
Number of employees	34	450

Source: DPO internal data and management discussions, 2021

DPO originated in Kenya and has grown a particularly strong presence in the East African region. DPO's main offering is an online gateway which has a feature that allows payments to be made with mobile money. This is a key feature that has supported DPO's growth since mobile money is a dominant payment method in the region. DPO operates mainly in the tourism sector which relies heavily on online payment options. In East Africa, Pesapal is their direct competitor in the hospitality space. There are other larger players that offer a similar stack of services to DPO, such as Flutterwave, but these players are prominent in other regions. Generally, the players in this payments space tend to be strong in their region of origination, such as Flutterwave in Nigeria, but are expanding rapidly and over time they will become strong pan-African competitors. Thus, DPO will face increasing competition as market entry and expansion begin to overlap.

The nascent nature of the market makes it difficult to accurately gauge metrics such as market share. In addition, these institutions largely do not publish annual reports, making information on them (beyond what is available on their websites or in the reported media) difficult to obtain.

Box 5 briefly discusses some competitors identified during discussions with DPO management. Most of these competitors are headquartered in Nigeria. This makes sense as Nigeria has a thriving fintech sector with a strong presence in payments businesses. This is driven by a youthful population, increasing smartphone penetration, and a focused regulatory drive to increase financial inclusion and cashless payments.[66]

66 Kola-Oyeneyin, T., Kuyoro, M., Olanrewaju, T. (2020). Harnessing Nigeria's fintech potential. McKinsey & Company.

Box 5: Selected DPO competitors

Flutterwave is a Nigerian payment services provider operating in over 34 African countries (including in East Africa). It offers a variety of products, with a similar suite to DPO. These include an online store, an online gateway, Flutterwave Capital (a merchant loan service), fund transfers and the issuing of virtual and physical cards. It allows merchants to generate a payment link that can be shared with clients for payment. Furthermore, Flutterwave offers point-of-sale (POS) machines, as well as an invoicing offering, allowing merchants to generate and send invoices to customers, for payment in various currencies. Flutterwave accepts payments in more than 30 currencies and serves a total of more than one million businesses.

Interswitch, also headquartered in Nigeria, has a presence across Nigeria, as well as Kenya, Uganda, Germany, and the Gambia and serves 190,000 businesses. It offers a variety of services to both consumers and merchants. On the merchant side, it offers a payment gateway, an e-commerce plug-in, support for a variety of payment options, multi-currency support and the ability to receive payments directly on the merchant's website or via a created payment link. It has a bulk payments solution, allowing for one-off or recurring fund transfers across bank accounts and mobile wallets. Interswitch also offers a POS solution, as well as business loans and advisory services, although the latter two appear to be limited to its Nigerian operations.

Paystack has over 70,000 merchants and spans Nigeria, Ghana and South Africa and processes more than 50 per cent of online transactions in Nigeria. Its offerings are tailored towards global corporates as well as smaller businesses. It offers online payments via a variety of channels (including card, fund transfer, QR, mobile money), while also offering e-commerce plugins and the ability to share a payment page with customers (for merchants that don't have a website). Paystack allows businesses to send invoices to customers and offers business advisory services to smaller businesses.

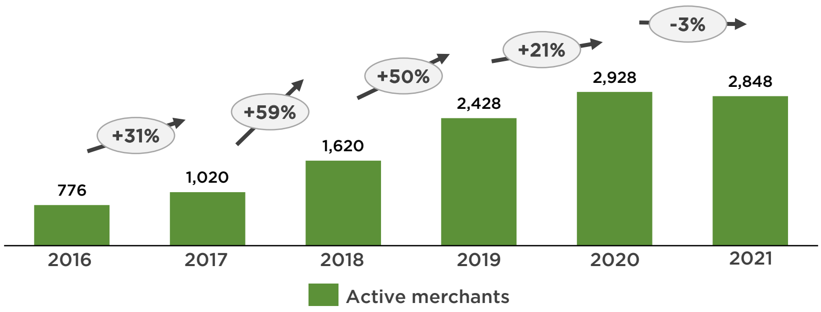
Pesapal has a presence across a number of markets, with a focus on East Africa (Kenya, Tanzania/ Zanzibar, Uganda, Rwanda) as well as Zambia and Malawi. Pesapal offers an online gateway, the ability to send invoices either email or online and a POS device. It also offers integration of booking and payment systems for hospitality-related businesses.

Source: Information retrieved from competitor websites, 2022

The data provided by DPO (spanning 2016 to October 2021) provided insight into how DPO has changed, particularly about its overall transaction values and volumes, the markets and sectors it operates in, and the uptake of its products by merchants.

As shown in **Figure 2**, the number of active merchants has grown since 2016, with a slight dip in 2021, likely as a part of the aftermath of the Covid-19 pandemic. Most of the growth in active merchants comes from the rapid expansion into new countries, rather than growth in the merchant base within existing countries. This reflects DPO's focus on servicing the tourism sector instead of multiple business lines (discussed further below). It was not possible to determine whether this growth was driven by new merchants or onboarding existing merchants through acquisition.

Figure 2: Number of active merchants
(2016 - Oct. 2021)



Source: DPO internal data, 2021

The growth in active merchants was mapped against BII's target geographies for investment, as outlined in its 2017-21 Investment Policy. Countries targeted for investment by BII accounted for more than 95 per cent of total merchants between 2016 and 2019. This figure declined slightly to 91 per cent by 2021, a development that was to be expected as DPO onboarded merchants across a broader variety of markets.[67]

As shown in **Figure 3** and **Figure 4** below, both total transaction values and transaction volumes have grown, with volume generally outpacing value.

Figure 3: Total transaction values in USD m
(USD m, 2016 - Oct. 2021)

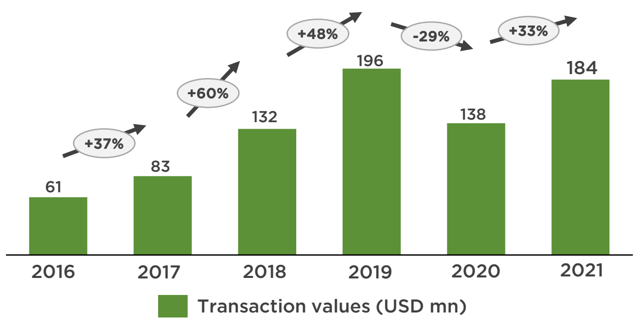
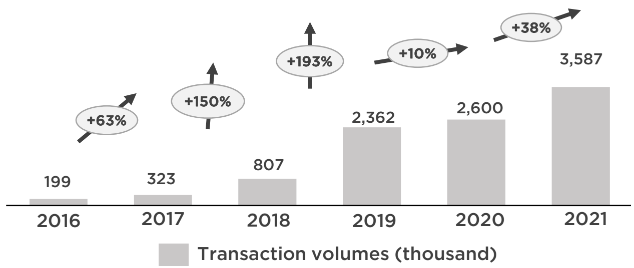


Figure 4: Total transaction volume (unique transactions processed)
(USD thousands, 2016 - Oct. 2021)



Source: DPO internal data, 2021

There are a few things to note concerning the relationship between the number of active merchants and transaction values and volumes. The rate of merchant growth is reasonably similar to the growth in total transaction values, suggesting that the growth in total values processed appears to be more a function of onboarding more merchants than of those merchants processing a larger value of transactions over time. This may highlight the continued challenge of shifting merchants to digital payments at scale. Given the nascent state of digital payments in Africa, this may be more due to the historic dominance of cash, rather than the efforts of competitors. However, the growth of the total number of transactions has generally outpaced both the growth in total value and the growth in total merchants. This implies that the average value per individual transaction is falling, and that the average merchant is processing a larger volume of transactions, which suggests that digital payments are being used more frequently, and for smaller purchases (by value), rather than being reserved for big purchases.

67 BII has subsequently altered its list of eligible countries as part of its 2022-2026 strategy. Regardless, a number of DPO's key countries (from a merchant number perspective) remain on the list, particularly countries such as Kenya and Tanzania. DPO's expansion therefore remains well-aligned with BII's target geographies.

Finally, the fees charged of merchants have generally declined over time, with the total fees paid as a share of total transaction values falling from 4.5 per cent in 2016 to 3.3 per cent in 2021.[68] The reasons for the reduction in fees were not explored in detail, although interviews with DPO management suggest that pricing is to some extent based on risk, with merchants being viewed as less risky as DPO processes more transactions for them over time. This could explain the reduction in average fees paid by merchants. **Table 5** provides data on fees charged by some of DPO's competitors.

Table 5: DPO selected competitor fees

Payment processor	Local transaction fees	International transaction fees
Flutterwave	1.4 per cent - 3.5 per cent	3.8 per cent
PayStack	1.5 per cent - 2.9 per cent[69]	3.9 per cent
Pesapal	3.5 per cent	3.5 per cent
Interswitch (Nigeria only)	1.5 per cent (capped at NGN 2,000)	Unavailable

Source: Competitor websites, 2022

Pricing across DPO's competitors varies substantially depending on whether the transaction is for a local or international client and on the market in question (Pesapal's 3.5 per cent flat rate being an exception). DPO's data are reflective of different fees in different markets – its online gateway fee for the Netherlands in 2021 came in with the lowest of 1.5 per cent, while fees in Angola were highest at 4.4 per cent. It was not, however, clear whether differences among these markets can be attributed to the split between local and international transactions. In practice, overall competitor fees are highly dependent on the relative share of transactions in specific market and the split of local versus international clients, making it challenging to compare average fees among competitors. However, DPO's average fee of 3.3 per cent in 2021 appears to position it in the middle of its competitor group, falling below the highest fee level for local transactions, as well as for international transactions.

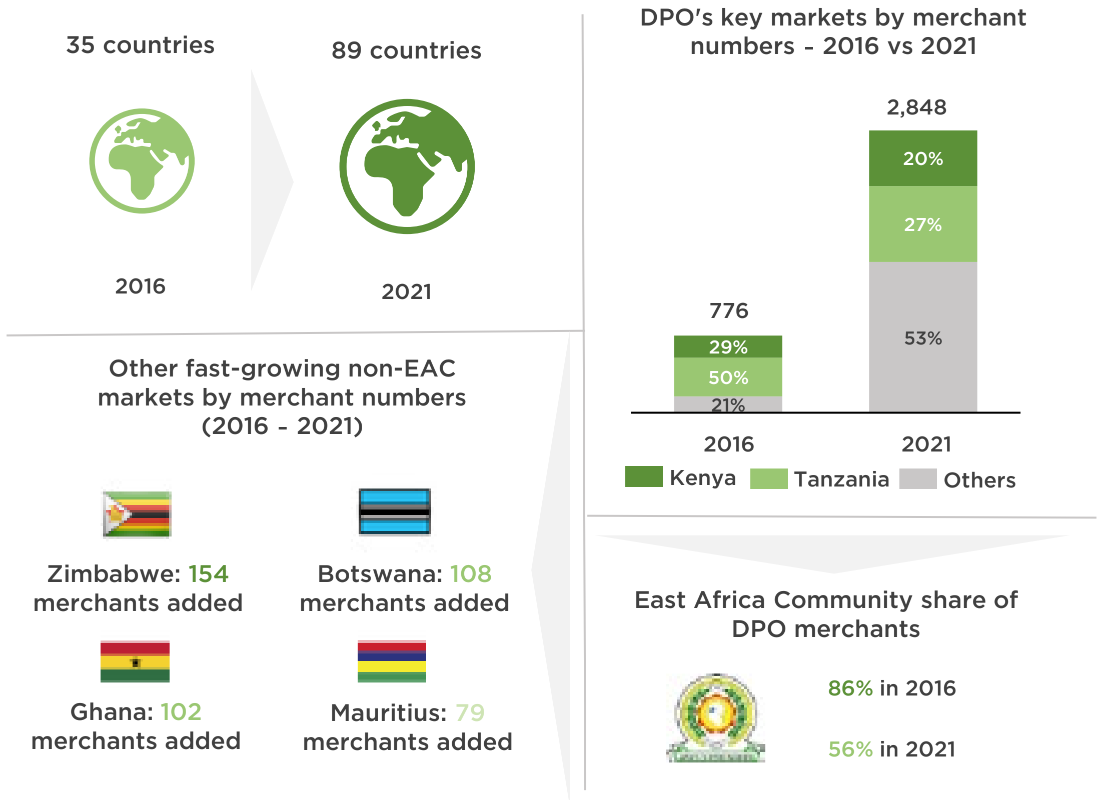
Data provided by DPO was also used to explore the development of the company's growth by country, sector, the size of the businesses it serves, and the uptake of its different products and services by merchants.

As mentioned above, from a country perspective, DPO has added many new markets to its overall footprint since 2016, and according to the data shared by DPO. DPO serviced 89 countries in 2021 compared with 35 in 2016, as shown in the **Figure 5** below. DPO's expansion stretched beyond Africa into countries in Europe and South America.

68 DPO internal data, 2021.

69 Paystack also adds a fee of NGN 100 for Nigeria or ZAR 1 for South Africa to local transaction fees.

Figure 5: DPO's country expansion (2016 – Oct. 2021)



Source: DPO internal data, 2021

However, in many of these markets DPO still services few merchants suggesting that there is potential for further growth.[70] When comparing 2021 with 2016, Tanzania (including Zanzibar) remains DPO's largest market by merchant numbers followed by Kenya. There has been encouraging growth in numbers in other, non-East African markets, with DPO developing a more sizable presence across Southern Africa and West Africa. However, although the dominance of East Africa has fallen, the most merchants are still in countries of the East African Community. Note that because the data does not cover the whole DPO Group, the South African entity is not included in these findings.

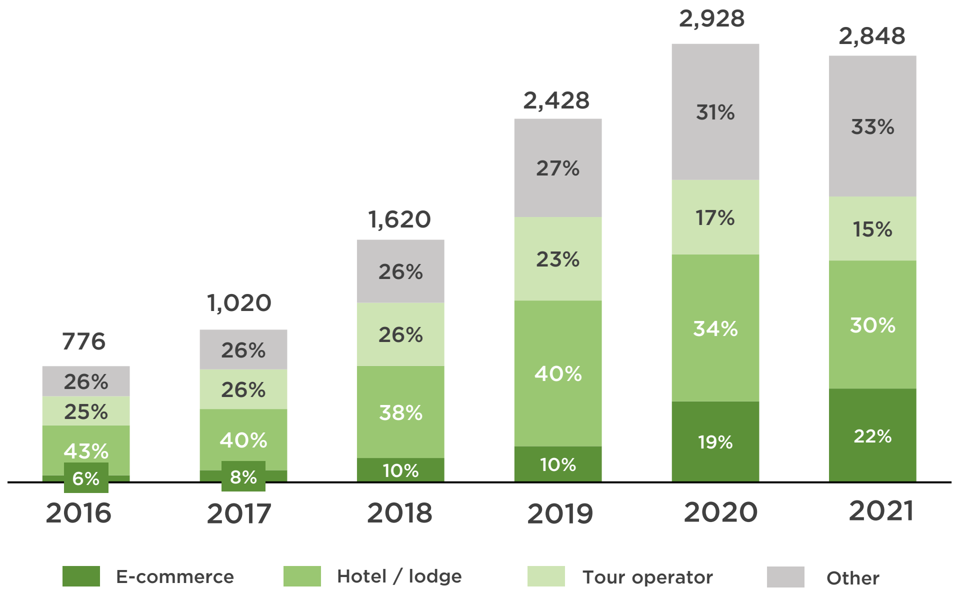
Table 6: Lesson – uptake of digital payments by merchants

QUESTION 2: Has Apis' investment in DPO enabled an increase in access to digital financial services for MSMEs?
Lesson 2.2: Expansion of digital payments offerings into new markets takes time to scale across many merchants.
DPO has entered a number of new markets (mainly through acquisitions) since BII's original investment in Apis. However, despite expansion across markets it may take time for sizable merchant uptake to take hold in these new markets. While DPO has reached a wide spread of merchants across a diverse set of African countries, active merchant numbers remain low relative to the large number of merchants on the continent and compared to the number of merchants acquired by its major competitors. This may be partly because DPO is a niche player in the hospitality space, and it will take time to attract a growing number of merchants in the e-commerce space and to attract clients from the potentially large number of merchants in other industries.

70 Comparing the number of active merchants acquired per year to the total number of countries entered indicates that the average number of active merchants per country has grown from 22 (2016) to 32 (2021).

Three key sectors represent the most DPO's merchants, namely the e-commerce, hotel/lodge, and tour operator sectors.[71] The emphasis on the latter two sectors likely goes some way to explaining the dip in active merchants observed in 2021. As shown in **Figure 6**, DPO's reliance on these sectors held steady between 2016 and 2019, with a slight diversification in 2020 and 2021 towards the group of other sectors, with Covid-19 likely to have been a key driver in this regard.

Figure 6: DPO active merchant numbers by sector (per cent of total, 2016 - 2021)



Source: DPO internal data, 2021

As the above figure shows, DPO's expansion between 2016 and 2019 relied largely on growing merchant numbers in the hotel/lodge and tour operator sector, designated as 'hospitality'. While DPO's product offering is not geared towards hospitality specifically, this was the sector that DPO initially serviced. The sector also relies heavily on digital payment methods, DPO's main offering. The share of the hospitality sector had begun to moderate pre-pandemic and fell substantially in 2020 and 2021 under the full impact of Covid-19. By contrast, DPO's e-commerce sector, which had shown steady growth in earlier years, enjoyed rapid expansion through 2020 and 2021. This outcome was somewhat predictable as the pandemic forced traditional commerce to pivot to an online presence.[72] While DPO's two big hospitality-based sectors, still represent a substantial combined market share of 38 per cent are likely to recover in time, it is encouraging that DPO is diversifying its merchant base.

Information on sector splits across key competitors was not readily available. However, competitor websites make it clear that acquiring services are available for merchants across a diverse set of sectors. For example, Flutterwave highlights the ability to provide services for food retailers, online bakeries and clothing retailers, among others.[73] Similarly, Paystack mentions that its offerings are used by financial institutions and media organisations.[74] In general between DPO and its competitors a wide range of sectors is being serviced, albeit to differing degrees.

Altogether, DPO's geographical reach has expanded quite rapidly, though merchants remain concentrated in a few key sectors. This suggests that DPO's expansion to new markets has generally been driven by those hospitality-related sectors where DPO was already active. Where DPO is more established it would appear to be achieving greater diversification in terms of sectors.

71 The e-commerce sector includes businesses that sell their goods exclusively online – businesses listed under this sector may therefore be involved in a range of activities, including, for example, ride-hailing and food delivery.

72 Annor, I. (2021). Ecommerce: Can covid growth be sustained? Africa News.

73 Flutterwave. (2020). 5 Businesses You Can Start with Flutterwave Store Right Now.

74 Omobomi, D. (2021). What kinds of companies use Paystack? Paystack.

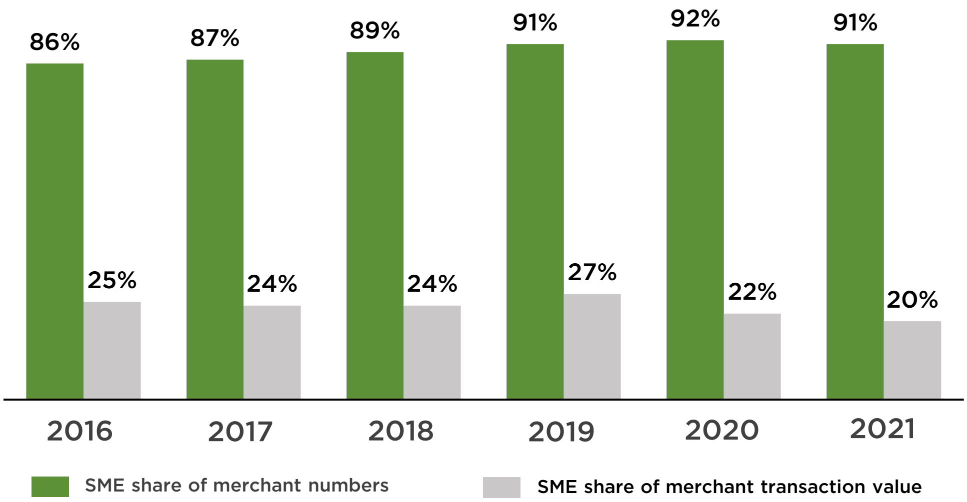
Findings about changes in merchants' sectoral and geographical composition indicate that compared to its relatively narrower focus areas (hospitality and East Africa, respectively) DPO is gradually expanding its reach to serve a broader group of clients suggesting that the benefits associated with digital payments is expanding to reach a more diverse group of merchants.

From a business size perspective, DPO distinguishes between large merchants, who process more than $100,000 through DPO in a given year, and SMEs, which do not meet this threshold.[75]

As shown in **Figure 7**, as DPO's merchant base has grown over time, the relative share of SMEs in the merchant base has grown ever larger from 86 per cent in 2016 to 91 per cent in 2021. This is broadly positive from an inclusion perspective, as it indicates a larger number of small businesses being able to access digital payments.

Despite this growth in SME merchant numbers, SMEs represent only a minority of the total transaction value processed in a given year. Though this share increased marginally between 2016 and 2019, the share of transaction values processed by bigger merchants has increased more in relative terms in recent years.

Figure 7: DPO - SME share of total active merchant numbers and transaction volumes (per cent of total, 2016 - 2021)

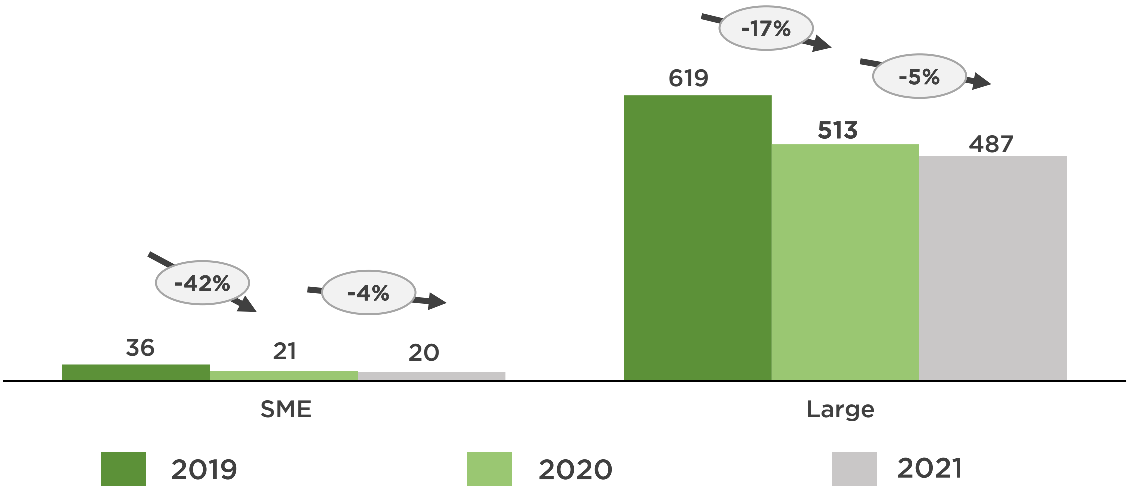


Source: DPO internal data, 2021

To gauge the impact of the Covid-19 pandemic, transaction values for merchants active in all the years from 2019 to 2021 were analysed. Merchants were deemed to be active in a given year if they registered transactions in each year. The analysis was further split by business size: large merchants versus SMEs. The average annual transaction sizes per merchant (split by size) is shown in **Figure 8**.

75 Definitions of SMEs differ widely. For example, the International Finance Corporation defines an SME as a business meeting two of the following three criteria: 1) less than 300 employees, 2) total assets of less than $15 million, 3) annual sales of less than $15 million. By contrast, the European Union defines an SME as having less than 250 employees and either annual turnover of €50 million or less or total assets of €43 million or less.

Figure 8: DPO merchant revenue by size for merchants active between 2019 and Oct. 2021



Source: DPO internal data, 2021

In relative terms, Covid-19 impacted SME merchants more than larger enterprises and the annual transaction value processed for SMEs fell by more than 40 per cent. For both small and large merchants, the decline continued into 2021, although, as noted earlier, data available for 2021 only covers transactions until October.

In summary, despite having access to digital payments, most businesses experienced a fall in transaction values in 2020 and 2021, with SMEs affected worse than large businesses. Though not explicitly investigated, it is to be expected that due to the restrictions placed on the physical movement of customers cash-based businesses were more badly affected during the Covid-19 pandemic than those using digital payments. Management interviews suggested that a number of merchants that took up DPO products to cope with lockdown restrictions reverted to using cash after restrictions eased reflecting the continued dominance of cash-denominated transactions.

The study also looked into merchants' uptake of DPO's various products, including payment products and the EasyAdvance loan product.[76]

While there has also been strong growth in mobile money transactions, in terms of merchant usage, the online gateway remains DPOs most dominant product by far. Other products offered by DPO have either shown only slow growth or have seen their shares decline. The preference for these two products becomes even clearer when their share of transaction values is considered, as per **Figure 9**.

76 DPOs payment products are: Online Gateway, mPOS, DumaPay, Mobile Money, Direct Currency Conversion, Virtual Card, Prepaid Card, Real Time Settlements, Managed Payments, and E-commerce.

Figure 9: **Share of total transaction value processed per product (per cent, 2016 and 2021)**

Share of total DPO transaction value processed

	Online gateway	Mobile money	Other DPO products
2016	95%	Not launched	5%
2021	85%	9%	6%

Source: DPO internal data, 2021

DPO's online gateway accounted for 95 per cent of transaction values in 2016, declining to 79 per cent in 2019 and growing to 85 per cent in 2021. Mobile money was launched in 2017 and has grown steadily, from 1 per cent in 2017 to 9 per cent in 2021. The remaining products are either relatively new (2020 onwards) or have seen their value fluctuate without a clear trend.

In line with the gradual expansion of, DPO's product suite, the decline in terms of market share of the online gateway product was predictable, although at 85 per cent of total transaction values, it remains by far the most dominant product. The growth of mobile money was also to be expected, given DPO's continued reliance on East Africa and the strength of mobile money in the region. Overall, however, it appears that, although DPO has expanded its product suite, the key need of DPO's specific merchants is to be able to accept digital payments online.[77] This focus on making digital payments is likely a result of DPO's historical emphasis on hospitality-related business. Globally, the travel industry has grown its online presence, and 66 per cent of revenue comes from online sales, suggesting there are a high number of payments being made and accepted online.[78] The high usage of the online gateway product may also be explained by the increase in the number of businesses shifting online in conjunction with Covid-19.

DPO's EasyAdvance product has seen little usage, so conclusions drawn can only be tentative. In addition, DPO discontinued this product in 2020 and it remains unavailable to merchants today. This may be because the most DPO's merchants operate in hospitality-related sectors and were heavily affected by the Covid-19 pandemic. Box 6 highlights the findings about the EasyAdvance product.

77 It is unclear whether this is a general trend across the industry; other players, such as Flutterwave and Interswitch, also offer merchants an array of products, but data is not available on how their transactions are split across these products.

78 Statista. (2022). Online travel market – statistics & facts.

Box 6: DPO's EasyAdvance product

Merchants could apply for an EasyAdvance loan by logging into DPO's online payment system. Loan sizes ranged from $500 to $8,000, and the amount that a merchant qualifies for was dependent on their transaction volume. Loan tenors and total amount to be repaid was merchant-dependent – the merchants were able to select the share of their processed transactions that they would like to go towards repaying the loan. Selecting a higher repayment percentage led to a shorter tenor and lower total amount repaid, i.e., a lower interest rate. However, information on interest rates and maximum/minimum tenors was not publicly available. There was an increase in the number of merchants making use of the EasyAdvance product, with five merchants making use of the product in 2017, growing to 94 merchants in 2019 before declining to 39 merchants in 2020. Overall, however, uptake of the product remained small with the total loan value reaching $966,200 in 2019. The fees earned as a share of total loan value declined from 27.6 per cent in 2017 to 6.5 per cent in 2020, though this trend might have been more marked were the product more widely adopted.

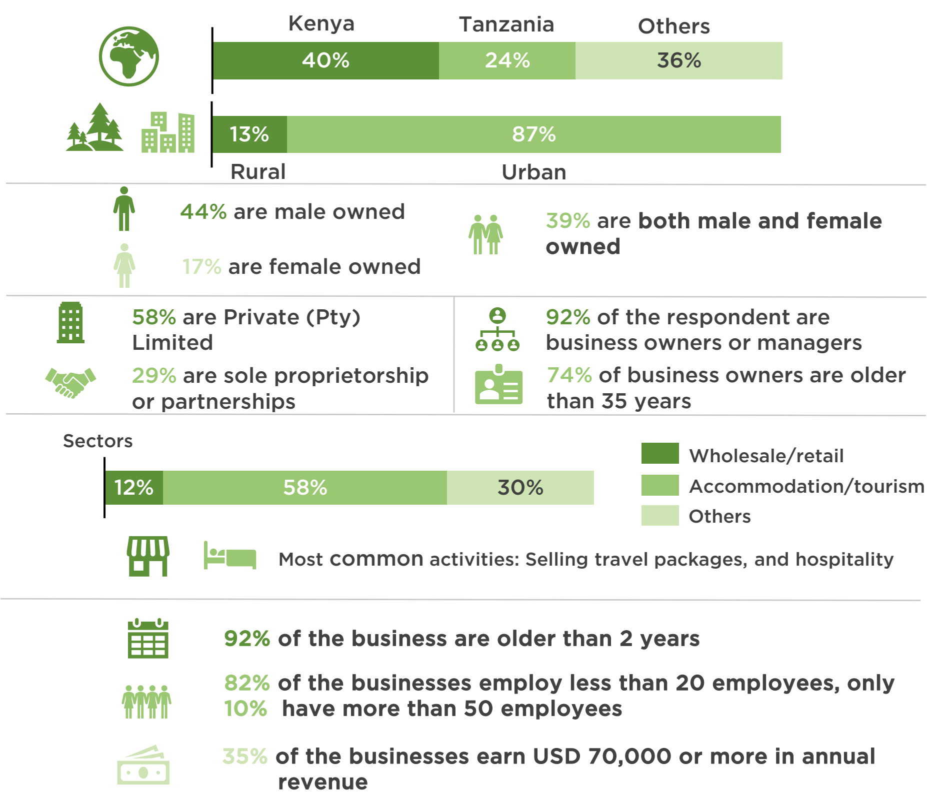
Source: DPO internal data and discussions, 2021-2022

2.2.2 A closer view of DPO's merchants

A survey was used to gain deeper understanding of DPO's merchants and the impact of DPO on their activities. Given the limited number of respondents, the results that follow should be interpreted in context: they cover only 113 of the 2,848 merchants active in 2021, and 64 per cent of respondents were merchants operating in Kenya and Tanzania. With respect to business size the sample is representative as it has a similar composition as the actual merchant base. However, Kenya and Tanzania make up 47 per cent of the actual merchant base so findings may be skewed towards these two countries.

The survey of DPO merchants enabled an analysis of their size, the sectors in which they operate, and their ownership structures.

Figure 10: A profile of DPO merchants from survey responses



Source: DPO merchant survey, 2022

As shown in Figure 10, merchants are largely based in urban areas and have a focus on hospitality-related activities such as accommodation and tourism. This is broadly in line with DPO's data on overall merchant distribution. However, Kenya and Tanzania (the countries where most of the survey sample was drawn from) have a higher concentration of hotels, lodges, and tour operators than the rest of the sample. Specifically, these classifications represented 55 per cent of Kenyan and Tanzanian merchants, and 43 per cent for the rest of the merchant base.

Businesses are largely male-owned, with only a minority (17 per cent) of businesses being fully female owned. This is noticeably lower than the national figure for Kenya (about 33 per cent for SMEs) and Tanzania (about 48 per cent for non-farm enterprises).[79,80] However, it is unclear whether the sample is representative of the actual merchant base with respect to the proportion of women-owned businesses since DPO does not have disaggregated data by gender. The businesses serviced by DPO are relatively small – they generally have less than 20 employees ('6 to 20 employees' was the most selected option). Similarly, the most selected option in terms of revenue generation was 'less than $30,000 per year', followed by '$30,000 to $70,000', a result which is consistent with DPO's data. Interestingly, most merchants have been in operation for more than two years – almost 65 per cent of respondent businesses being more than five years old, with business owners also generally being older than 35 years.

The types of demographic data collected for the survey sample were not the same as those available in the DPO data, which made it difficult to directly compare whether survey respondents shared a similar profile. Regardless, survey respondents are mostly small businesses involved in hospitality-related activities, which is similar to the findings from the DPO data.

Table 7: Lesson – focusing on reaching MSMEs by increasing African fintech investment

QUESTION 3: How are BII's investments reaching MSMEs and what types of MSMEs are being reached by e.g., size, income, and gender?
Lesson 3.1: There is room to continue investing in African fintech, particularly with an aim to diversify the sectors served. Investments in fintech in Africa remain small. KPMG estimated that global investment in fintech in 2021 amounted to $210 billion or about 0.22 per cent of global GDP.[81] In Africa, this figure was just over $2 billion, or about 0.07 per cent of the continent's GDP. Hence, despite growth in recent years, investment in fintech in Africa remains relatively small. This implies that there is opportunity for further investment in African fintech.[82] To date most investment in African fintech has been in the payments area, and there would seem to be an opportunity for expanding investment in areas such as lending, KYC, SME management software, and decentralised finance.[83]

79 International Finance Corporation. (2021). Sourcing2Equal Kenya: Barriers and Approaches to Increase Access to Markets for Women-Owned Businesses.

80 World Bank. (2022). Tanzania Economic Update 17 Final Report : Empowering Women - Expanding Access to Assets and Economic Opportunities. Tanzania economic update; issue no. 17 Washington, D.C, World Bank

81 Ruddenklau, A. (2022). The Pulse of FinTech H2'21. The Pulse of Fintech; KPMG.

82 It should be noted that BII does have other online payment investments across Africa and Asia.

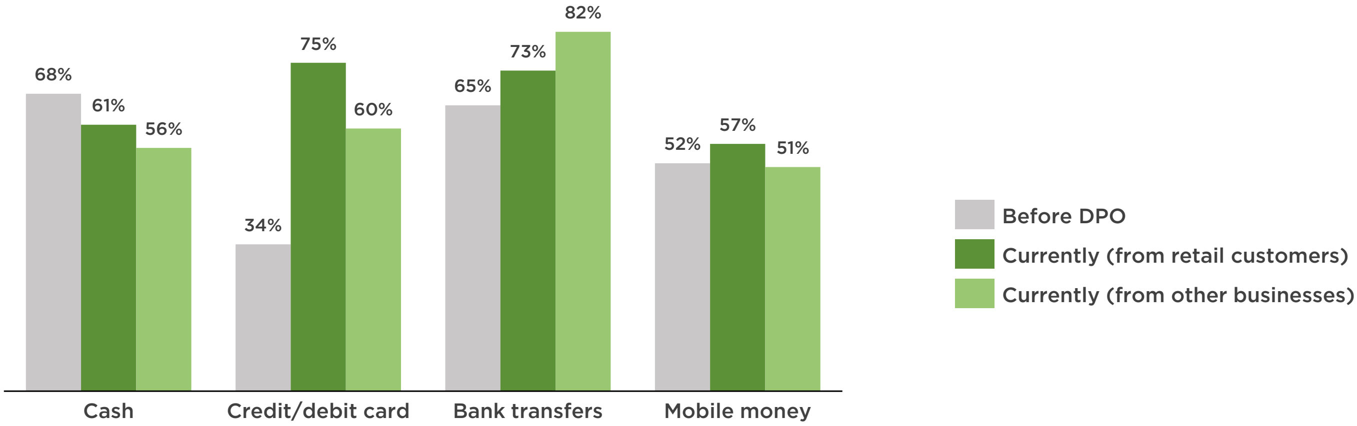
83 Njanja, A. (2022). Fintechs in Africa continue to overshadow all other startups in funding gained. Tech Crunch.

Merchant behaviours and perceptions

Merchant behaviour before and after using DPO

The survey made it possible to explore the behaviour of merchants in more depth, particularly about how they receive payments from retail and business customers, as well as how they pay salaries, suppliers, and utility bills.

Figure 11: How merchants receive payments from customers[84] (multiple responses possible, share mentioning[85])



Source: DPO merchant survey, 2022

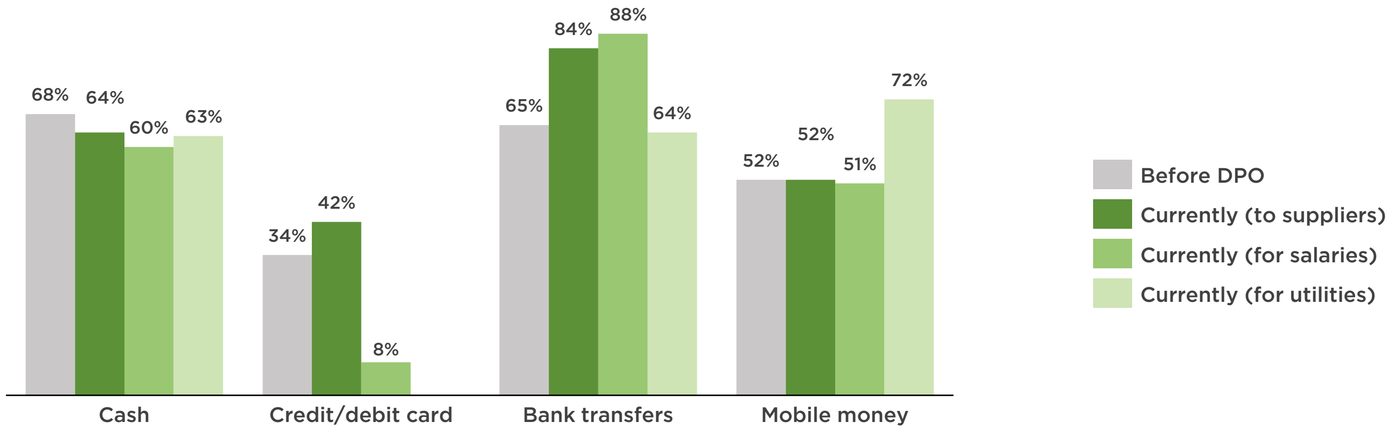
Before DPO, merchants used mainly a mixture of cash, bank transfers and mobile money. This was to be expected – cash remains a widely-used means of payment in sub-Saharan Africa, while mobile money is particularly widely used in East Africa. Bank transfers were also widely-used – this could be because a large share of survey respondents was involved in hospitality and travel, a sector where transaction sizes are likely larger than for merchants selling items like food, for example.

Since they became DPO merchants, survey respondents generally reported increased usage of credit and debit cards, bank transfers and mobile money acceptances. In particular, use of card payments has grown from 34 per cent to 75 per cent of transaction volumes for retail customers and 60 per cent for business customers, while bank transfers have grown from 65 per cent pre-DPO to 73 per cent for retail customers and 82 per cent for business customers. Mobile money usage has remained largely unchanged, growing as a proportion of retail customer acceptances from 52 to 57 per cent.

The 41 per cent increase in card acceptance is striking. While merchants mentioned substantial use of bank transfers before using DPO, suggesting a reasonably high level of formal, bank account usage, it appears that merchants were largely using bank accounts to receive money, rather than to avail themselves of digital payment services, such as POS devices. DPO, therefore, has enabled them to unlock new ways of accepting payments.

84 Note that the question on usage before DPO was not split up by business/retail customers and so this is the average usage before DPO.
85 Respondents were allowed to select multiple responses and the per centage of individuals who selected each response is reported.

Figure 12: How DPO merchants make payments[86,87]
(multiple responses possible, share mentioning)



Source: DPO merchant survey, 2022

Survey respondents generally make use of a mixture of bank transfers, cash, card payments, and mobile money to pay their suppliers, salaries, and utility bills. The use of bank transfers to make payments has increased from 65 per cent to 84 and 88 per cent for paying suppliers and salaries respectively. Although suppliers have to accept receiving payments digitally for merchants to be able to pay them digitally, there has been an increase in the use of mobile money to pay utilities. The increased use of bank transfers may reflect the fact that larger suppliers are more accustomed to accepting payments in the form of bank transfers.

Although DPO has helped merchants to make and receive more digital payments, it is clear that cash payments still play an important role with digital payment methods complimenting rather than replacing cash.

Table 8: Lesson – shifting behaviour away from cash

QUESTION 4: What is the impact of payment services provided by DPO on MSMEs?
Lesson 4.1: Additional interventions by a diverse set of stakeholders would be needed to shift behaviour away from cash
Survey findings highlight that more can be done to drive the acceptance and usage of digital payments in DPO's markets. Interventions could take place on the supply and demand sides of the market, as well as through changes in the regulatory environment. Examples of interventions include making digital payments more accessible and affordable for both consumers and merchants, encouraging higher levels of account ownership and addressing certain foundational factors like robust information and communications technology infrastructure. A recent survey of fintech and financial services players across Africa highlighted the importance of enabling factors for digital payment growth and the challenges arising from their absence.[88] In particular, low digital literacy, low levels of internet penetration and unsupportive regulatory policies are key challenges facing fintech growth. Against this backdrop, it is understandable that small merchants across Africa default to immediate settlement in cash, despite the underlying, hidden costs (such as guarding against theft, fraud and broader cash management costs like having to deposit cash into a bank account). Addressing these factors will depend on intervention by a diverse set of stakeholders, including regulators, policymakers, and providers of funding such as DFIs.

86 Merchants were asked how they made or received payments before DPO as one question, so the per centages for made and received before DPO are the same.

87 Merchants were not asked if they used a credit/debit card to make utility payments.

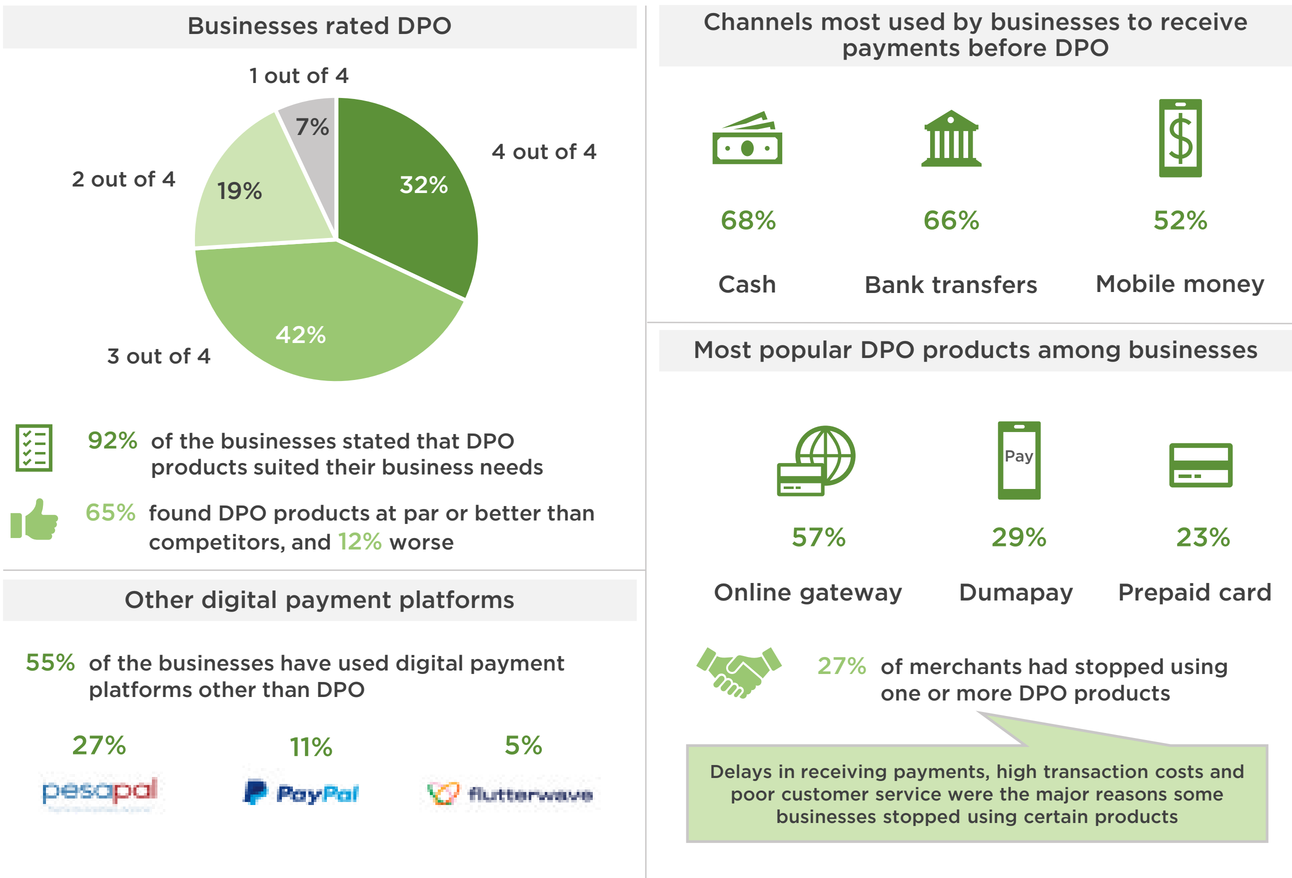
88 Arttha. (2021). Fintech in Africa: a 2021 outlook. Arttha.

When survey respondents were asked why they made use of the various payment methods, the majority said it was because of convenience and ease of use. The two main reasons merchants use DPO products (digital payment methods) are that they are convenient (71 per cent of respondents) and secure (61 per cent of respondents). The most common challenges cited (not necessarily limited to payments) related to cashflow and working capital difficulties – commonly experienced by small businesses, regardless of their use of digital payments.

Merchant perceptions of DPO and usage of DPO products

In addition to their payment behaviour, merchants were asked how they accepted payments before they used DPO's services, and about their perceptions of DPO and the overall suitability of its products, their experiences with other digital payment platforms, and any suggestions around how DPO can help accelerate growth in the merchants' businesses.

Figure 13: Merchant perceptions of DPO and usage of DPO products



Source: DPO merchant survey, 2022

As shown in the Figure 13, just over half of DPO's merchants have some experience with other payment service providers, with Pesapal, Paypal (which spans over 200 countries) and Flutterwave proving the most popular options. This means that 45 per cent of merchants were first time digital payment users. Most merchants regard DPO well, with 42 per cent of businesses awarding it three out of four stars and 32 per cent awarding it four out of four starts. Furthermore, 65 per cent of respondents believe DPO's products to be at least as good or better as those of competitors, and largely believe that the available products and services meet their needs. Despite this, a sizable minority (27 per cent) of respondents had stopped using one or more of DPO's products, citing delays in receiving their payments, high transaction costs and poor customer service.

Merchants were asked whether there are any other products or services that they would like DPO to add. Given the open-ended nature of the question, results were varied and had to be grouped together into various buckets for interpretation, such as 'payments' or 'customer service'. 49 per cent of merchants responded to this question with common responses referring to the need for faster settlement times, standalone POS machines, and increases in the number of platforms that accept payments through DPO. The latter could reflect the need for greater interoperability between payment providers, particularly given the nascent state of the African payments market.

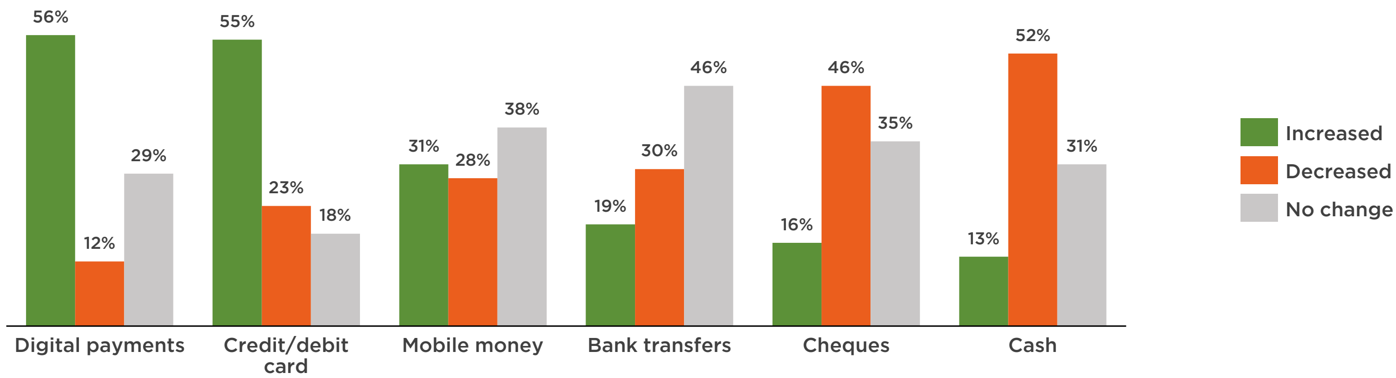
There were also requests for improved customer service in the form of a more intuitive user interface and better reports and statements. In addition, there were requests for a loan offering. As discussed earlier, DPO did offer merchant loans through its EasyAdvance offering, though it paused this service in 2020.

The responses to the survey differed somewhat from DPO's data as far as product usage was concerned. While most respondents confirmed their usage of the online gateway, the proportion (57 per cent) of usage was far lower than recorded in DPO's database. Conversely, the survey showed higher levels of usage of DumaPay[89] and the prepaid card offering than reported in the DPO's data. The reason behind this may be that the survey sample was not fully representative of the overall DPO customer base, given the relatively low number of respondents and the emphasis on Kenya and Tanzania. The survey result may be slightly skewed because DumaPay gives merchants and their customers easier access to making payments using mobile phones and usage of phones for this purpose is much more prevalent in East Africa than elsewhere. However, this discrepancy does not materially call into question these findings.

2.2.3 Outcomes experienced by merchants

The final overarching area that was explored in the survey was the impact that DPO's products and services have had on the respondents' businesses. In particular, this included changes in sales figures, profitability, changes in the channels customers use for payment, changes in employment, and cost savings.

Figure 14: Survey respondents – changes in number of transactions processed by channel[90]



Source: DPO merchant survey, 2022

As shown in Figure 14, merchants reported changes in the number of transactions processed across different channels. Merchants generally indicated a decline in non-digital channels, such as cash and cheques. All digital channels had more merchants indicating increases than decreases, except for bank transfers, for which the most popular selections were either "no change" or "decreased". Though the decline in non-digital transactions is positive from the viewpoint of overall digitalisation, channels such as cash and bank transfers remain popular options, as discussed earlier. Digital payments in general have increased for most merchants, while the numbers around mobile money are more mixed, with a similar level of increases and decreases reported, and the most popular options being "no change".

89 DumaPay allows merchants to accept card, mobile money or QR payments on a mobile device.

90 Up arrows indicate share reporting an increase, down arrows indicate share reporting a decrease, horizontal, double-pointed arrows indicate share reporting no change. Totals do not sum to 100 per cent as some respondents selected "not applicable".

Figure 15: Survey respondents – changes in sales, profitability and taxes paid as reported by merchants

Share of respondents with more than 40% of sales paid for digitally before DPO	Share of respondents with more than 40% of sales currently processed through DPO
47%	39%

Share of merchants reporting annual sales growth of more than 15%

Before DPO	At present	Next year (expected)
24%	40%	63%

42% of merchants responded that sales would not have grown at the same rate without DPO products

Change in business profitability after DPO	Impact of DPO on taxes paid	Has DPO helped to reduce costs?
72% - Increased	29% - Increased	28% - Yes
5% - Decreased	9% - Decreased	43% - No
23% - Unchanged	62% - Unchanged/ unsure	29% - Unchanged

Source: DPO merchant survey, 2022

Figure 15 further explores some of the self-reported changes experienced by DPO's merchants. Interestingly, the results seem to suggest that a smaller share of transactions are being processed through DPO than was being processed digitally before the merchants used DPO. This appears contradictory, given that in answering earlier questions, merchants reported a growing number of digital transactions relative to non-digital. The reasons for this apparent contradiction are unclear. It may be that merchants make use of multiple payment service providers (other survey responses suggest that a sizable share have used other providers) and that DPO forms only a portion of their digital transaction profile. Merchants may be using DPO for their hospitality-related business and other digital-service providers for general payment services. In addition, it should be noted that a sizable share of the merchants in question are in hospitality-related sectors, like tourism or accommodation, and are relatively small. The total number of transactions processed by the business are therefore likely to be lower (due to the nature of their respective industries) than in a retail business – indeed, 81 per cent of respondents suggested that they process fewer than five transactions using DPO in a given day.

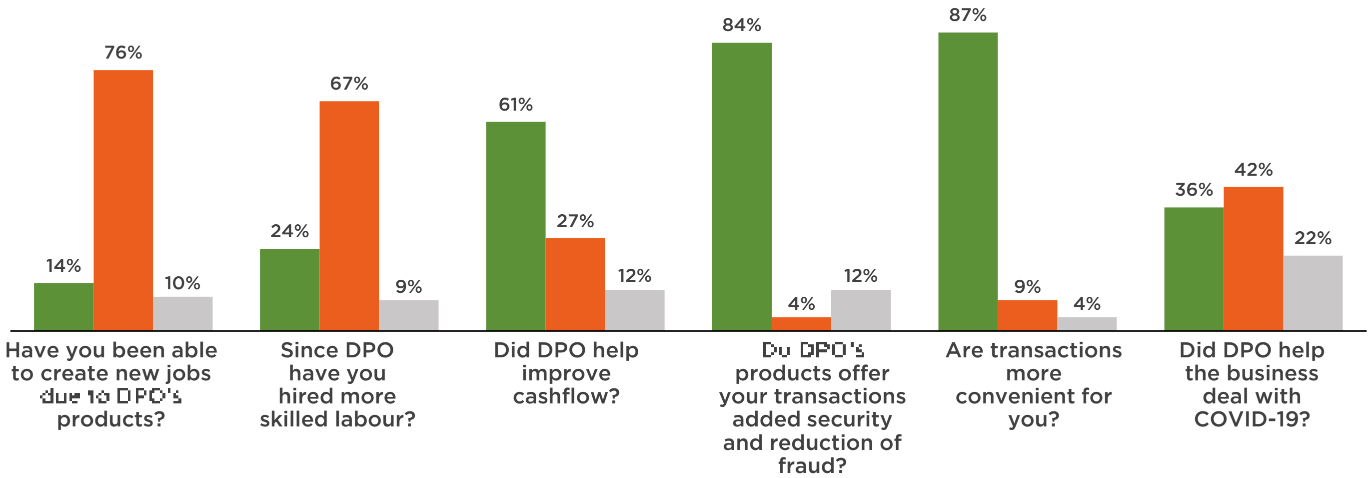
There is some evidence that merchants have seen their revenue growth accelerate since joining DPO. In part this could be due to businesses attracting a wider pool of customers by offering more payment choices. While only 24 per cent of merchants reported annual sales growth of more than 15 per cent before joining DPO, 40 per cent reported that sales growth currently exceeds 15 per cent, with 63 per cent expecting growth above 15 per cent next year. Of course, given that respondents may also use other digital platforms, the impact attributable directly to DPO is difficult to disentangle. Sales growth can also be affected by various factors; however, a sizable share of respondents (42 per cent) expressed the view that their sales would not have grown at the same rate without DPO, compared to the 28 per cent who felt that sales would have grown at the same rate.

Finally, merchants generally agreed that DPO has had a positive impact on their overall business profitability with 72 per cent indicating that their profitability increased after using DPO likely because merchants were able to offer customers more diverse payments options and attract new business, although this may also be a result of various factors besides just using DPO. Forty-three per cent of respondents indicated that DPO has not helped reduce costs. This suggests that the shift to digital is not about costs but rather other factors such as convenience and access to a larger client base. For those 28 per cent who did indicate a reduction in costs, the most selected margin for the reduction was between three and five per cent (selected by 56 per cent of relevant respondents). There may be a link between this finding and the lower cash management costs or lower risk of fraud associated with digital payments.

Despite the reported increase in profitability, there was no equivalent reported change in taxes paid for most respondents, with only 29 per cent of respondents reporting an increase. Increased tax payments could arise because of increased use of cashless payments. This is because digital payments leave a paper trail that can be audited and thus taxes are more likely to be paid on digital transactions.[91] Such an increase in tax payments could be indicative of increased formalisation where businesses start paying taxes where they had not done so before. Thus, the fact that only 29 per cent of merchants reported an increase in tax payments may indicate that either the reported increases in profitability were marginal or that using DPO products had not necessarily resulted in increased formalisation. On the other hand, this result of only a 29 per cent increase in taxes paid was perhaps to be expected, as digital payments are unlikely (in isolation) to produce outcomes that will have a sizeable impact on metrics such as overall business costs or taxes paid. It should be noted that taxes and cashflow are two of the main impact areas mentioned in the FI-DI framework.

The survey allowed for some additional impacts to be explored, as shown in **Figure 16**.

Figure 16: DPO merchants - responses around additional changes after DPO[92]



Source: DPO merchant survey, 2022

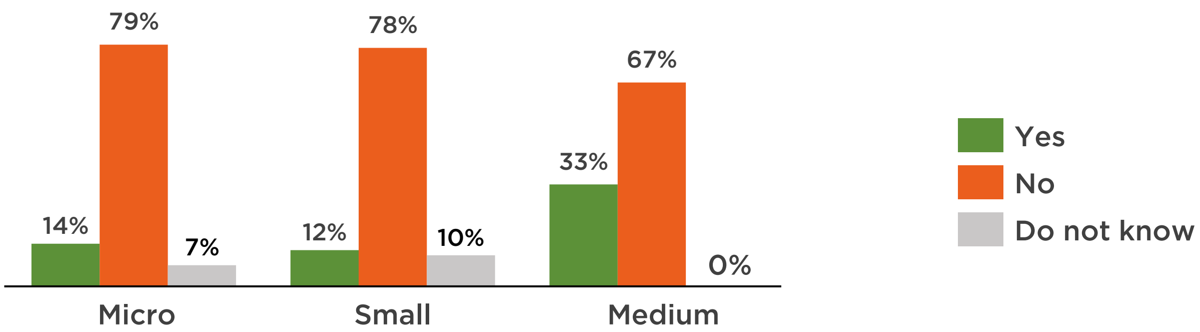
Sixty-one per cent of respondents reported that using DPO's products had improved cashflow, flagged by businesses as a challenge elsewhere in the survey. Furthermore, 84 per cent of respondents highlighted added security and 87 per cent referred to the added convenience they associate with using DPO's products. This indicates that digital payments have indeed enabled ease of payment and reduced the risk of physical theft and fraud.

Only 14 per cent of businesses indicated that they were able to create new jobs due to using DPO products, although the scale of this was not interrogated. Twenty-four per cent indicated that they were able to hire more skilled labour.

91 Estevao, M. (2021). Why tax administrations are embracing digital transformation. World Bank.

92 Some respondents did not answer yes or no and hence why some of the per centages do not add up to 100 per cent.

Figure 17: DPO merchants – responses to "Have you been able to create new jobs due to DPO's products?" split by business size[93]



Source: DPO merchant survey, 2022

When split up by business size, fewer micro, and small businesses (14 and 12 per cent respectively) reported being able to create new jobs than medium sized businesses (33 per cent). Survey results suggest that for smaller business in particular, it is less likely that digital payments could drive the substantial business expansion needed to justify hiring more employees.

The survey explored whether DPO's products had been helpful to merchants in dealing with the Covid-19 pandemic. 36 per cent agreed that DPO's products had supported them in dealing with Covid-19, with a sizable proportion of these businesses suggesting that they had been able to keep their businesses running more or less as usual during the pandemic due to contactless payments. While this might be expected to be the most common answer, it was somewhat surprising that only a minority of respondents felt that DPO's products had been helpful in this regard. However, given that a sizable share of DPO's merchants is in the hospitality industry, their ability to function during Covid-induced lockdowns was more limited than in the case of businesses that deliver products directly to consumers. For DPO's merchants, digital payments may therefore have made a relatively small contribution towards mitigating the disruption caused by the pandemic.

The final area investigated was how DPO could help merchants grow faster. Similar to an earlier question, the responses to this question were open-ended, leading to a variety of responses, which had to be collated across different themes.

Improving customer service was the most favoured theme emerging around how DPO can help merchants grow faster. This includes making the interface more user friendly, providing advisory services such as tutorials on how to use different DPO products, and providing easier marketing tools to merchants. Lower fees and improved connectivity took second place, while the need for faster settlement times was also highlighted. Interestingly, respondents also reported the need for an instant payments option and loans. These are products that DPO already provides, though their uptake remains low, and the provision of loans has been paused (as mentioned earlier).

Table 9: Lesson - the impact of digital payments on merchants

QUESTION 4: What is the impact of the payment services provided by DPO on MSMEs?
Lesson 4.2: While digital payment services clearly benefit merchants, there is room for additional support in driving small business development
In most cases merchants did not react to the introduction of digital payments by adding to the number of their employees. For small merchants any change in employment was more unlikely. This is consistent with similar findings of limited impact on costs and taxes. While merchants did report that digital payments brought well-documented benefits in terms of transaction security and convenience as well as prevention of fraud, it is unlikely that on their own digital payments could drive the substantial business expansion needed to justify recruiting more employees.

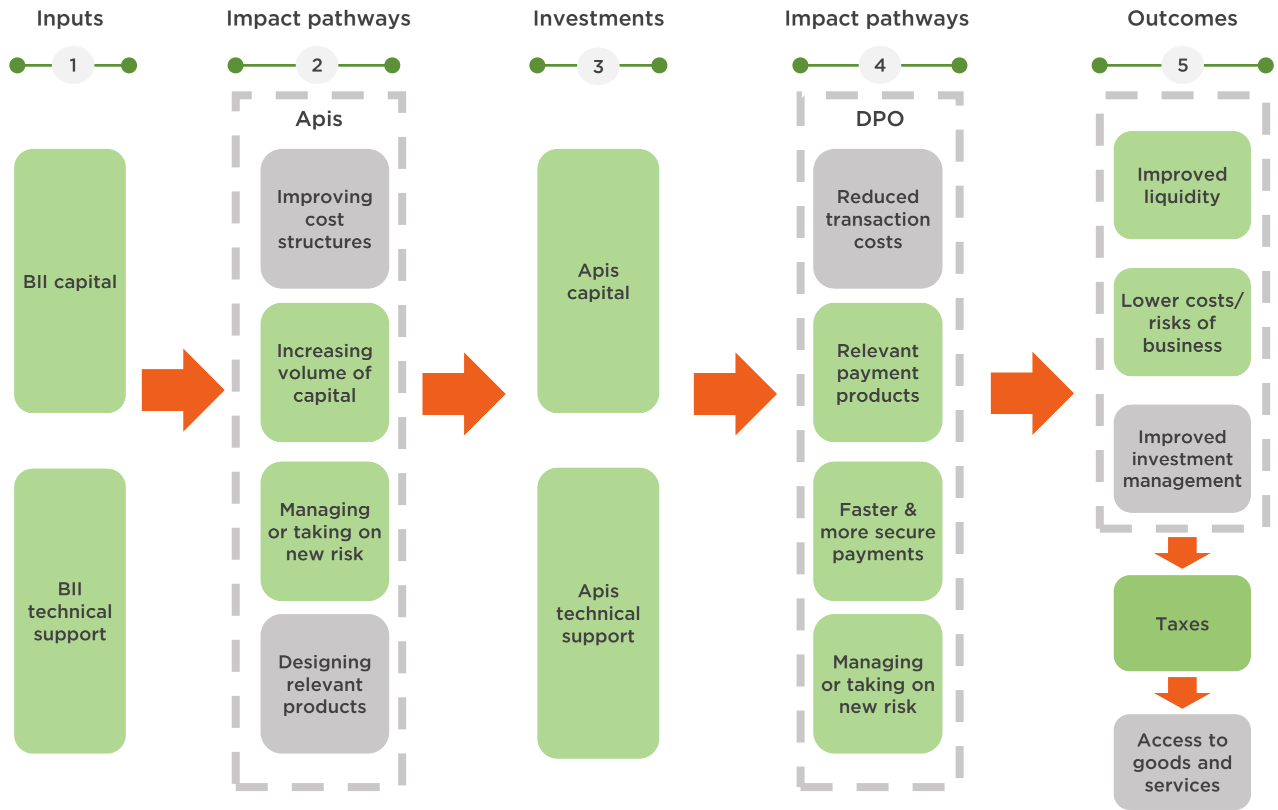
93 Classified as micro (1-5 employees), small (6-50 employees), medium (51-200 employees). Note that this definition is different to that of DPO which uses the value of annual transactions processed to categorise businesses.

2.3 Impact mapped to FI-DI framework

Under its 2017-2021 strategy, BII produced development impact frameworks for each of its key investment sectors, including financial services. BII developed these frameworks as a consistent way to articulate impact, and to provide a lens to assess expected impact, and monitor it over time.[94]

We used BII's FI-DI impact framework, and retrospectively mapped findings from the study onto this framework. This is shown in Figure 18. Areas where we identified strong evidence of impact are highlighted in green, while areas highlighted in grey are areas where we found no or inconclusive evidence.

Figure 18: Findings of evaluation mapped to FI-DI framework



Source: BII, 2021

In addition to the outcomes identified through the Apis/DPO deep dive, there are secondary outcomes not captured by this single impact chain. For example, using digital payment methods creates digital identity for these individuals and businesses. Digital identity (ID) can unlock access to a safe and secure digital world in the economic, social, and political realms. For financial institutions, digital ID can improve customer experience and boost productivity, while improving risk management. Employers can use digital ID to extend and improve talent matching and streamline employee authentication, thereby filling open positions more rapidly with better qualified candidates. McKinsey & Company predicts that countries extending full digital identity coverage could unlock value equivalent to 3 to 13 per cent of GDP by 2030.[95]

The table that follows summarises the findings of the evaluation against the FI-DI framework, with findings provided per impact level.

94 British International Investment. (2023). What impact means to us.
95 Mahajan, D., Sperling, O., White. O. (2019). Digital ID: The opportunities and the risks. McKinsey & Company.

Table 10: Summary of evaluation findings

Impact level	Summary of evaluation findings
1	• BII provided capital and technical support to Apis which included providing input into the fund's ESG due diligence process
2	• BII contributed $30 million to Apis Growth Fund I, or about 10 per cent of the total. • Apis credits BII for attracting other DFIs to the fund. • Apis has been able to attract commercial capital providers (both for Fund I and subsequent funds) because of BII's contribution.
3	• Apis invested $25 million in DPO. • Apis provided technical support to DPO, particularly in bolstering the company's ESG processes, AML/CFT and KYC policies and developing an inorganic growth strategy.
4	• DPO's transaction fees are roughly in line with competitors. • DPO provides its merchants with an array of digital payments solutions – 92 per cent of merchants agreed that DPO's products were suitable for their businesses. Desktop research suggested that products are similar to those offered by competitors. • Merchants agreed that payments were more secure (84 per cent), and transactions were more convenient (87 per cent). • Apis contributed to DPO expanding into new markets by: • Shaping DPO's inorganic growth strategy and facilitating introductions to the relevant parties, allowing DPO to execute acquisitions. • Influencing DPO's AML/CFT and KYC policies which made it easier for the company to obtain required PSP licenses.
5	• 61 per cent of merchants reported improved cashflow as a result of using DPO's products. • 84 per cent of merchants highlighted increased security and lower fraud since using DPO's products. • 29 per cent of merchants reported an increase in payment of taxes after using DPO. • 14 per cent of merchants were able to create new jobs and 24 per cent were able to hire more skilled labour as a result of using DPO's products.

Annex 1: BII's FI-DI impact framework