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Can Fintech help close the Financing gap for Small and Medium Size Enterprises in Africa

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Can Fintech help close the Financing gap for Small and Medium Size Enterprises in Africa?

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Abstract

The total financing gap for Africa's 50 million SMEs, which form the backbone Africa's economies, is estimated to be USD 330 billion. Lending to them has not been expanding as expensive customer registration and KYC processes as well as antiquated, often manual, risk-scoring methodologies make lending to SMEs unprofitable. The fixed costs are too high in relation to the small amounts SMEs tend to borrow. In the last few years, fintech, i.e. financial technology in the form of digitalization, mobile phone apps and background-algorithms, has led to dramatic innovation in dealing with processes and credit-scoring approaches, leading to potential disruption in banking and financial services, including in Africa. By analyzing four banks, two 'bolt-on' credit-assessment providers and seven fintech lenders, this paper focuses on the question how fintech has the potential to change processes and risk-assessment to reduce costs and make lending to SMEs more profitable. The financing gap can be closed, but more likely by banks embracing fintech in their own processes than by stand-alone fintech lenders which are frequently too expensive to be sustainable partners for SMEs.

Keywords: *fintech, Africa, SME, development, economics, finance, loans*

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Practitioner Points

1. There is a huge market potential of over USD 300 billion to finance SMEs in Africa
2. Getting the digital processes of customer onboarding and above all credit scoring right is key for successful, sustainable and profitable lending
3. Profitable lending is the pre-condition for lenders, both banks and fintechs, to obtain funding for expansion.

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Introduction

50 million SMEs are the backbone of African economies. They provide over 60% of employment and generate 40% of the Gross Domestic Product (GDP) of African countries (Proparco, 2019). In Ghana, SMEs represent 92% of all local businesses, contributing about 70% to the country's GDP and in Nigeria, 17 million SMEs produce 48% of the GDP (Kuwono, 2017). SMEs are merchants, traders, producers, innovators, smallholder farmers, hairdressers, restaurants. Some 50 million are registered businesses. Probably the same number exist as unregistered, often micro-scale, ventures. They need finance for working capital or investments. But making loans to them is cumbersome and expensive. Lenders need to do due diligence in the form of KYC (know your client), credit assessment, people assessment. Such assessments take a long time and then most SMEs only need smallish amounts of money, so the potential profits from making loans are small. Making loans to SMEs consequently made little sense for banks as the processes were simply too expensive and the number of non-performing loans were too unpredictable - and generally high. As a result, banks concentrated on consumers and bigger corporates whilst microfinance institutions lent to micro enterprises. SMEs fell between the chairs. The problem of this "Missing Middle" was recognized years ago, alas not much was done or could have been done to help these SMEs. To close the African SME financing gap would require some USD 300 to 400 billion, which are impossible to raise as long as returns are too low and too unpredictable. Some 10 years ago, financial ventures using fintech started disrupting traditional banking by providing faster and cheaper loans and services to consumers and companies around the world. Digitalisation seemed the answer to solve the problem of expensive processes. In this study, the question is asked whether fintech can help close the USD 300 billion financing gap – and, maybe more importantly, whether and how fintech is closing this gap. Are banks digitalizing their analogue processes? Are fintech lenders a serious danger to banks as disrupters in the SME lending space? Who will profit most from fintech? To answer these questions, both banks active in the SME space and fintech companies lending to SMEs are analysed. The conclusions are not straightforward but fintech seems able to contribute to the closing of the gap, even if not in the disruptive way one would expect. This paper aims, on the one hand, to provide a better understanding of the financing problems related to African SMEs and of the targeted solutions provided by the digitalization of processes and on the other hand to discuss the potential pitfalls linked to these new and disruptive approaches. It concludes by showing a cycle of success, how SME lenders can successfully grow their businesses and thus help close the SME financing gap.

Definition of Fintech

Investopedia (2021) describes fintech as "new tech that seeks to improve and automate the delivery and use of financial services …. by utilizing specialized software and algorithms that are used on computers and, increasingly, smartphones." Fintech came to the forefront of the start-up world with the development of the smartphone that allowed users to access financial services via their devices and that allowed financial service providers to utilize digital means and data to devise new ways of assessing credit, make loans, invest money, move money - all at speeds multitudes faster than normal bricks and mortar banking services.

Definition of SME

The definition of what constitutes a SME varies from country to country. Most definitions refer to the number of employees and turnover. Generally, Medium size enterprises have up to 200 employees, small size up to 50, very small 20 and micro enterprises between zero and five employees. A differentiation between formal and informal businesses (i.e. businesses that are not registered and generally have no financials or formal banking connections) has to be acknowledged as most statistics quoted in this paper refer to formal businesses. Data about informal businesses – frequently one or two-person businesses where private and business accounts are often mixed - are generally difficult to obtain.

The Financing Gap

SMEs in developing countries, experience a serious financing gap. The World Bank estimates there is a gap of USD 57 and USD 86 billion in North Africa and Sub Saharan Africa respectively for micro enterprises and USD 138 billion and USD 245 billion for SMEs.[2] The IFC sees the gap in Africa at USD 331 billion (IFC, 2018). The World Bank estimates that 40% of African SMEs face difficulty accessing finance. In some areas, the numbers are a staggering 50% to 75%.

Big corporates are potentially lucrative customers and are therefore serviced by domestic and international banks as well as development finance institutions like the IFC or AfDB. On the bottom end, individual or micro borrowers, including one or two-person enterprises frequently receive money from local money lenders and microfinance institutions. Whilst many local money lenders charge usury interest rates to

[2] Adding the informal sector, i.e. SMEs that are not registered as companies, would add another USD 17 billion at least. (Bruhn, et al, 2017)

MSMEs and MFIs frequently managed to replace them as a funding source, many MFIs charge interest rates of 50% to over 200%.[3] Such rates are clearly not sustainable for micro-enterprises or for consumers.

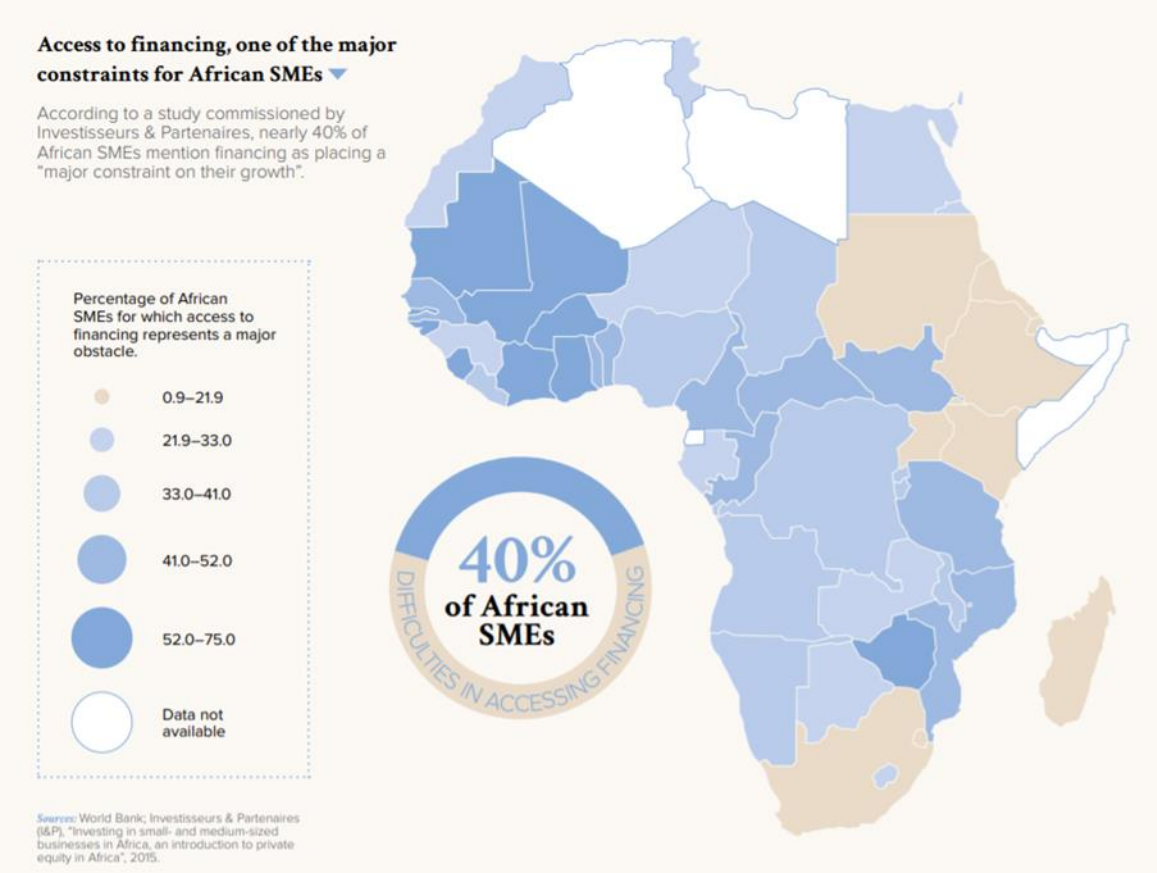

Figure 1: Percentage of African SMEs confronted with Obstacles to Access to Finance (World Bank, 2015)

Methodology

To analyse the question how fintech can help close the financing gap for SMEs in Africa, the focus was put to the greatest extent on fintech developed or applied in Africa. In addition to literature review and digital data collection,[4] in depth stakeholder interviews were conducted with fintech professionals, bankers, development finance professionals, SME advisors, accountants, auditors, as well as owners of SMEs in South Africa. Drawing parallels to and learning lessons from other fintech markets like the US, China, India or Europe would have exceeded the scope of this paper. The author does not deny the fact

[3] www.mixmarket.org used to provide detailed reports about the cost of loans provided by commercial and NGO-led microfinance institutions, as reported in Fedder (2013)

[4] All websites and web-articles quoted in this paper were accessed in the months of March to June 2022

that these markets offer interesting experiences and perspectives. The author's long term participant-observations are also reflected in this paper.

Reasons for SMEs Financing Gap

SMEs frequently fall between these chairs as they lack the Nobel Peace Prize "halo" of microfinance and the profit potential of larger corporates. The reasons for not receiving sufficient finance are many-fold (African Business, 2019): the most pressing issue is the lack of proper financial data, but also limited corporate governance, weak management, weak business plans and "low capacity and the need for upskilling and training" (London Stock Exchange, 2018). Key determinants for access to finance, were found to be firm size, ownership, strength of legal rights, and depth of credit information but also a firm's export orientation and the experience of management (Quarterly et al, 2017).

Risk - Return

If the assumption is that in principle there is enough money available to close the gap, then the simple conclusion must be that money does not reach its targets because of red tape and wrong risk-return characteristics. To remove red tape is a larger issue. But if the returns were high enough to compensate for risks, investments should flow. Returns can be increased by building better processes that reduce the costs of making loans. Equally, if the risks were perceived to be better quantifiable and manageable, then the returns required would also drop and interest rates could be cut, thus increasing loan-demand.

Looking at the Financing Gap from a SME Perspective

Thorsten Beck and Robert Cull (2014) analysed the problem from a different perspective and looked at the main obstacles to SME development: the lack of finance was clearly the biggest obstacle quoted by SMEs. The authors subsequently tried to figure out why SMEs do not take up loans – only 16.52% of the respondents to their survey said that they have a loan, 28% stated that they had applied for a loan. Of the 72% who did not apply for one, 43% claimed that they do not need a loan.

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Do you have a loan?		
	Yes	No
Developing countries Africa	16.52	83.48
Developing countries ROW	28.64	71.36

Did you apply for a loan?		
Region	Yes	No
Africa	27.76	72.24
Rest of the world	30.56	69.44

Why did you not apply?		
	Africa	Rest of the world
No need for a loan	43.24	62.22
Application procedures are complex	15.91	7.05
Interest rates are not favorable	14.03	10.27
Collateral requirements are too high	9.01	4.28
Size of loan or maturity are insufficient	2.05	1.15
Necessary to make informal payments to get bank loans	3.77	2.02
Did not think it would be approved	7.76	7.10

Figure 2. SME Loans – Reasons for not applying

The answer "No need for a loan" needs to be taken with caution as it may not reflect demand elasticity. This point was emphasized by several SMEs interviewed in Stellenbosch, South Africa.

The Perspective of Banks

Making loans is expensive for banks. Onboarding a new client requires a detailed know your client ("KYC") process when issues like company registration, fraud registers, directors, major shareholders, ESG standards (cf. Investopedia 2022) are checked. Credit assessments are even more detailed. Such analysis takes between four to six weeks and, according to one former banker, used to take up to six months in the past. Even a four week's process is very expensive as basically the same amount of data-points need to be analysed for a loan of USD 100k as for a loan of USD 1 million. Spreading such fixed costs over a small SME loan amount would require a high margin – i.e. the interest rate charged - to an extent that the loan is no longer affordable for an SME, or legal in a country like South Africa, which sets legal limits to the interest rates a bank can charge. However, if the overheads and costs of KYC and credit assessment can be reduced and if the risk scoring methodology can be improved, loans that are profitable for lenders can be made at sustainable interest rates. This can be done with the help of fintech.

Key Risks

The rating agency Moody's stated seven key risk factors when performing a SME credit assessment, the most import ones being the reliability and detail of financial information, the predictability of cash-flows, the sustainability of the SME's business model (Page, 2016). Nicolas Picchiottino (2019) concluded that the main reasons why MSMEs default were external factors, i.e. problems with suppliers, contractors and clients who default on payments to the SME. With this knowledge, a credit analysis should focus in addition to the financial health of the SME also on the financial health of its suppliers, contractors and other clients in order to evaluate the sustainability of the business (i.e. the chances of getting paid) and thus the credit-worthiness of the SME.

Non-performing loans (NPL) are a problem for lenders. Because of historically high NPL of SME lending portfolios and consequently a high presumed probability of NPL in case of new lending, lenders have to charge higher loan margins in order to have a portfolio of loans that generates enough revenues to cover the risk of some of the loans non-performing. Higher interest rates are, in turn, stifling businesses and may be leading to a self-fulfilling prophecy.

The IMF (2022) stated that SME NPLs in South Africa have been rising lately. These numbers are confirmed by the OECD (2020), which showed in the graph below that non-performing SME loans were almost double the percentage of total non-performing corporate loans.

The problem of high NPLs is prevalent in most African economies (Statista 2021). The numbers underline the riskiness of lending to SMEs in Africa and the need for correct credit assessment. If 10% of SME loans made by a lender become defaulting loans, then the lender would need to charge a high base margin just to cover for such loss – i.e. before adding a margin to cover overheads and shareholder profits, etc. The problem is that lenders usually do not know in advance whether 10% of the loan portfolio defaults or 15% - or, for that matter, the rate of recovery. As a result, in order to be conservative, lenders tend to assume a higher potential loss – and charge a higher margin. If this loss probability can be predicted on a portfolio with a higher degree of accuracy, then the lender would be in a position to charge a margin that more correctly reflects the risk.

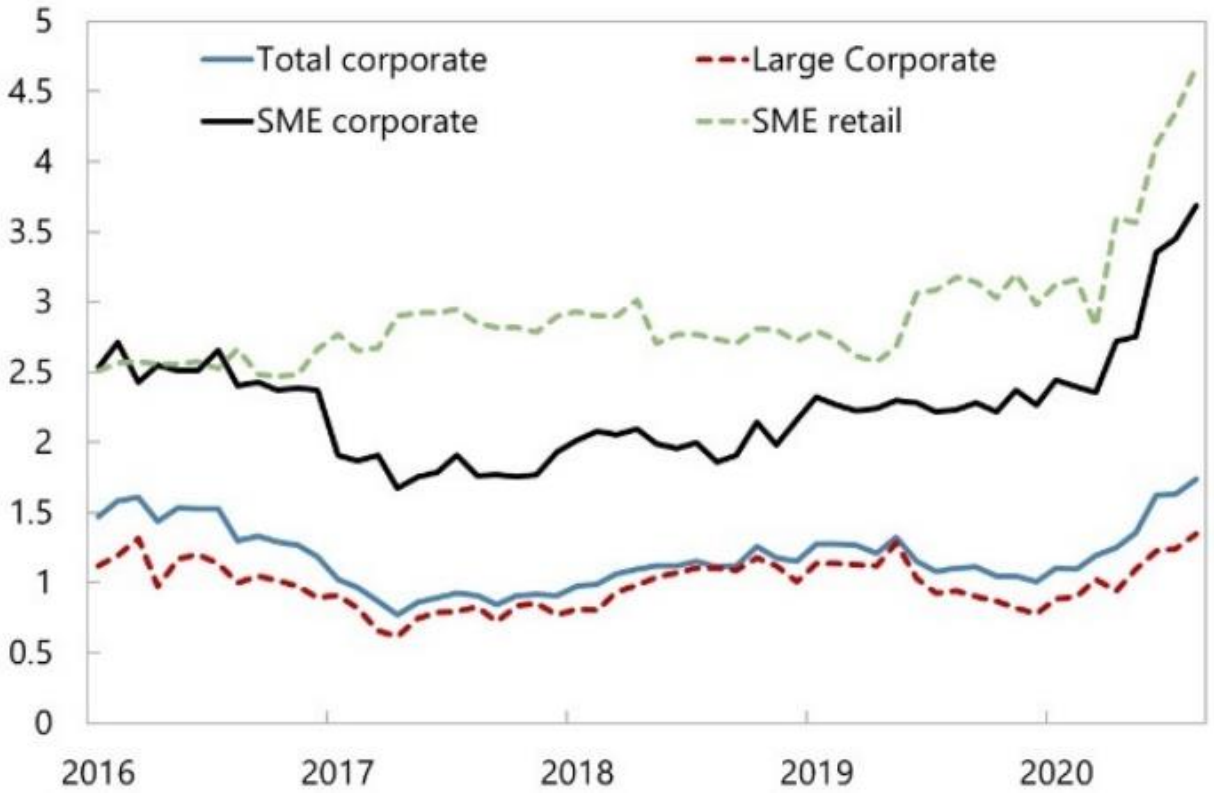

Figure 3. SA Corporate NPLs per cent of total loans

Banks as SME lenders

Banks remain the classical SME lenders. Loan-volumes from banks for SMEs by far exceed volumes lent by fintech companies. The lending processes of banks are in most cases very traditional, from on-boarding, KYC, to credit analysis and disbursement processing. Banks however have realised the advantages digitalization entails and have started the process of converting manual processes and methodologies to digital processing. A number of banks, chosen to provide geographic representation and to reflect developments in certain key economies, were analysed for this study.

CIB in Egypt

Commercial International Bank is one of the key private sector banks in Egypt and active in SME lending. The Egyptian government obligates banks to lend 25% of their loans to the SME sector. CIB is in the process of automating key KYC and credit processes. The credit analysis requires 12 months financial statements but also looks at other data, including customer bank statements. Bank statement analysis is outsourced to a third party service provider and the derived credit score provides one input into the credit assessment. Due to fraud experienced in various documentation, the bank performs physical customer visits

and checks with the national credit bureau. Loan margins are on average 3 – 4% over the Egyptian interbank rate and the loan size is capped at USD 2 million equivalent. A large portion of SME loans is not collateralized.

Assessment: a bank moving from analogue to digital processes to improve KYC and credit scoring.

Access Bank in Nigeria

Access Bank plc is a Nigerian multinational commercial bank, active in a number of African countries which, after the 2019 merger with Diamond Bank, became a large institution with 42 million clients and 28,000 employees. With a total of about 17 million SMEs in Nigeria, Access Bank recognized the business potential and currently serves about 1 million of them, seeking to cover half of the total sector by 2027. Access Bank helps SMEs in the preparation of their loan applications, realising that many SMEs are not aware of data points necessary for a bank to approve a line of credit. Data inputting and providing 6 months of bank statements takes a SME on average an hour and KYC and credit assessments are to the greatest extent digitalized. Loan approval is fast and most loans do not require collateral. Loan pricing depends on the credit score, lending is on a floating rate basis with maturities, which are generally cash-flow dependent, of up to 24 months. NPL are below 5%. Whilst the focus of the SME banking activities is on loan sizes of Nigerian Naira 250k to 50 million (USD600 to 120,000), the bank also targets micro businesses.

Assessment: Highly digitalized and automated processes making SME lending a profitable and sustainable business.

Bank of Kigali in Rwanda

Bank of Kigali is Rwanda's largest bank with a balance sheet of over one billion USD equivalent and is active in business, SME and retail lending. Of the approximately 800k SMEs in Rwanda, the bank services 6,000, with USD 140 million equivalent outstanding, and intends to double this number. In 2018 Bank of Kigali installed Q-Lana (cf. below) as a credit work-flow, scoring and management platform. This digitalization of the credit processes helped speed up the credit decision making as everyone involved in the analytical and approval process, including the credit committee, can work off the same platform. The

credit department stated that Q-Lana helped to save about 72 work-hours per credit assessment. Loan maturities are up to 24 months for working capital and longer for equipment loans.

Assessment: The bank is profiting from a highly digitalized credit assessment that makes SME loans economical.

Standard Bank in South Africa

Standard Bank is Africa's largest bank in terms of assets and its equity is double the size of the second largest bank. The bank has operations in many African countries and also on other continents. SME financing is a key business area. Of the 2.25 million SMEs in the country, only 725k were classified as formal (OECD, 2020). Standard Bank has 450k SME clients and seeks to expand this business significantly to service 1 million SMEs in 3 years' time. Whilst a number of processes are digitalized and automated, Standard Bank stresses that it 'works with' SMEs in order to provide support and help them stay in business – which was crucial during Covid. The onboarding process is partially digitalized, requiring a 30 minute telephone call to finalise verification. For credit assessment, the bank is generally looking for 24 months of business data. The average SME loan amount is ZAR 450k (USD 30k) with variable maturities and pricing according to credit score. Standard Bank has an internal team developing alternative credit scoring of SMEs taking a whole range of alternative data directly and also indirectly linked to the SME into account. This methodology is currently being piloted and will be rolled out, starting later in 2022.

Assessment: the bank is in the process of finalizing the digitalization of key processes which will enable it to profitably increase its SME lending operations.

Bank Analysis Inferences

Initial inferences can be drawn from the analysis of banks and their approaches to integrate fintech into KYC and credit-assessment processes. Foremost, some banks stick to legacy processes and making SME loans would continue to be expensive for them so that lending may not be expanded. Secondly, other banks are waking up and are digitalizing KYC and credit assessment, thus sharply reducing processing times, whilst improving analytics and thus reducing unexpected loan losses. This should lead to expanded business as returns on equity improve. Thirdly, Bank of Kigali's reported time saving of over 70 hours per SME credit assessment is a conservative indication of the total time saving potential per client. As credit

approval processes take up to six weeks in other banks, time savings may be significantly higher. Fourthly, Banks have one big advantage: as deposit taking institutions they have a huge domestic funding base that can provide cheap funding for the expansion of SME lending. And lastly, the other advantage of banks is their bricks-and-mortar presence in many parts of the country, which will help keep the number of non-performing loans in check and generally support non-performing loan recovery processes.

Fintech addressing the Financing Gap

As the example of banks above showed, many banks are already incorporating digital solutions in their various processes: KYC, credit scoring and also payments. Some banks develop in-house solutions whilst others use external providers such as Q-Lana. It is clear that fintech can help improve the parameters necessary for an expansion of SME lending.

In the following chapters a number of fintech approaches will be discussed that have in principle the potential of disrupting bank lending to SMEs and helping to close the financing gap. The major improvements to business the digitalization of payments has made to SMEs has been highlighted inter-alia by PwC (2021). It has, however, not led to a significant increase in lending. The assumption is that if SME lenders can provide better products, lower their overheads by digitalizing processes, employ more precise credit assessments and consequently reduce NPLs, this would lead to more competitive pricing, a greater outreach and generally a portfolio of SME loans with improved risk-return characteristics (Kehide, 2021). Financially more attractive SME lenders should, as a result, receive more equity and debt financing from investors to grow their businesses.

Three Focus areas of Pure Fintech Play

For the purpose of this study, fintechs are divided into three specific categories. First, Fintech IT providers that provide software as a service – like credit scoring as a service - to existing banks or other lending institutions (‘bolt-on fintech’). Secondly, fintech companies that provide a platform, connecting SMEs with loan-investors – the peer to peer business model (P2P). And lastly, Fintechs that themselves lend to SMEs, albeit on a less thoroughly regulated basis and without deposit-taking licenses.

"Bolt-on" Fintech

There are a number of areas where fintech has been providing a bolt-on solution to help existing financial institutions manage certain problems, like digital C2B or B2B payments, money transfers or, indeed, KYC and credit assessments. In the latter field, there are a number of companies providing software for credit scoring to lenders seeking to digitalise their processes. In this context, Wiserfunding and Q-Lana are analysed in more detail as both have a presence in the African market, even if the former is based in London and the latter in NYC and Rwanda. Also Pezesha, the Kenyan P2P lender analysed further down, offers credit assessment as a service. Pezesha owns all the data it collects for the credit assessment which helps feeding its machine learning credit-scoring algorithms.[5]

Q-Lana

Q-Lana is a comprehensive cloud-based credit management platform providing software as a service (SAAS) based in Kigali and New York.[6] The core piece is the advanced risk assessment of corporate clients, using qualitative and quantitative data and criteria. In its analysis, Q-Lana focuses on basic company/contact Information including KYC/AML checking, company business information, including sector, product and market assessments, financial statement analysis, financial forecast models as well as qualitative information. Q-Lana seeks to utilise information from every interaction a financial institution has with its client, starting with first contacts, loan application, approval, monitoring, and collection. Information is collected through a variety of methods, including speech recognition (Ruehmer, 2020).

Wiserfunding

Wiserfunding is a London based company that has developed a strong analytical tool for the assessment of company credit risks. In view of the diversity of SMEs, their industry sectors and also their geographies, it has developed 41 distinct models that allow a more precise scoring, analysing classical data-points derived from a company's financial statements and bank account activities as well as unstructured information like corporate governance and a more general macro-economic outlook. Non-financial and 'event' data supplement accounting data (Altman et al, 2021).

[5] This poses the question of a potential conflict of interest as it acts not only as a provider of credit analysis but also a direct competitor.

[6] http://www.q-lana.com/

The assessment engine is AI-driven and is thus constantly 'learning" as it is fed more data from more SMEs in different geographies. The models achieve a prediction accuracy with regards to the assessment and scoring of an SME's credit risk of over 90%. Wiserfunding is used as a bolt-on main or secondary credit scoring methodology by a number of financial institutions and challenger banks.[7]

Assessment: Both Wiserfunding and Q-LANA enable financial institutions to leapfrog years of internal system development and digitalise costly manual key processes, saving time and overheads. Both companies have Africa experience.

The Fintech Situation in Africa

In 2021, there were 716 fintech companies operating across the continent. Of these, 85 were lenders and 313 provided infrastructure or payment services and 318 provided other services (African Fintech Radar, 2021). Half of all fintechs are in Nigeria, Kenya, South Africa, (London Business School, 2021), and Egypt had 65 companies in 2021 (Disrupt Africa, 2021). The fintech sector in other countries is growing. In the discussion paper by the German Institute for Development and Sustainability, the authors Disse and Sommer (2020) came to the conclusion that "… even though digital advances have led to impressive growth of certain digital finance instruments, it has not triggered a remake of the financial system. Digitalization of the financial system is less disruptive than many expected, but does gradually change the financing landscapes. Some markets have added innovative and dynamic niches shaped by digital financial services, but new digital players have in general not replaced the incumbents."

Mobile Money

In some way the oldest fintech in Africa is mobile money. With the spreading of mobile phones in Africa, many people and thus also microbusinesses got connected to each other and also to a potential new source of money: cashless money through the phone. M-Pesa, the pioneer in Kenya, brought financial inclusion to literally anybody in the country who was in possession of a simple mobile phone – not even a smartphone. M-Pesa in swahili means M=mobile Pesa=money. M-Pesa was launched in 2007 and quickly grew in Kenya and spread also to other markets like Tanzania, Mozambique, DRC, Lesotho, Ghana and Egypt. It is a service provided by Vodafone and Safaricom. M-Pesa allows mobile phone owners to receive and pay or transfer money and also to make deposits and obtain loans. The money is held in an account on the

[7] www.wiserfunding.com

smartphone and can be sent using the SMS text message service. M-Pesa's network of agents allow the customers to withdraw cash or deposit money (Chitavi et al, 2021).

Disse and Sommer calculated that in 2018 the total amount of lending to Kenyan SMEs (including private as well as business loans) through the various mobile service providers was a rather small amount of USD 151 million equivalent. This amount is dwarfed, according to the Central Bank of Kenya (2021) by the USD 5.3 billion which was lent by commercial banks to SMEs and USD 290 million by microfinance institutions. One key explanation for such low lending volumes can be found in the interest rates charged by mobile money lenders. As Mwangi Maina (2021) wrote in the Africa Report, Safaricom PLC's M-Shwari charges a 'convenience fee' of 7.5% on credit regardless of its duration. As a result, the annualised loan rate can be up to 395% APR. The Standard (2019) reported similar high rates for lending from various other mobile lenders.

Assessment: whilst mobile money was truly revolutionary, it failed to disrupt the SME lending market because of interest rates that are not sustainable for SMEs

P2P Lending

Peer to Peer lending became en vogue in the UK and in the USA in 2005 and 2006 with the founding of the first platforms Zopa and Lendingclub respectively. The advantage of the business model – connecting lenders to borrowers directly - was that by cutting out the bank, lenders would get a higher return than on a normal deposit account whilst borrowers would pay less interest than a bank would charge. The platform would generally provide credit scoring on the basis of financials provided by the borrower. In Africa there are a number of P2P platforms connecting both individuals and SME borrowers with lenders. FSD Africa and Intellecap (2020) published a report titled *Innovative Credit Models in Africa* and estimated inter-alia that the potential for P2P and crowd-funding models in Africa can reach a volume of USD2.5 billion by 2025, given that lending volumes on platforms have been growing at a rate of about 300% over the last five years. This estimate, however, includes all P2P lending and is not limited to SME lending.

Pezesha, Kenya

The P2P SME platform Pezesha is based in Kenya, started operations in 2016 and managed to build a customer base of 6,000 borrowers backed by 200 lenders. Pezesha uses a digital analytical tool, patascore[8] for KYC, fraud detection and credit risk assessment of SMEs. Key data-points for the credit assessment are extracted from borrowers M-Pesa mobile money transactions allowing Pezesha to get a detailed picture of the incoming and outgoing cashflows as an input to determine the capacity of the SME to repay a loan. The process is linked-up with the national credit bureau. On their website Pezesha states, "the unbanked can now have credit scores & reporting that eventually grows to a formal credit history that can be used to access loans from banks and larger financial institutions."[9] In order to obtain a credit score, the so called unbanked that wish to obtain funding must be a registered business and have been in operation for at least six months. SMEs would apply digitally via Pezesha's mobile web with KYC, fraud analysis and credit scoring completed within hours. Credit analysis subsequently evaluates financial statements and business plans and checks with strategic partners the transactions record of the SME. On this basis, a digital loan offer is made and the SME is added on to Pezesha's platform for investors to lend to. The whole process takes between 1 and 5 days. Mobile money can be used for loan repayments. The interest rates Pezesha charges vary according to the SME's credit score and are generally between 27% and 48% p.a.[10] Maturities are short, generally between 1 and 6 months. For investors Pezesha provides an investment algorithm rather than choice. Lenders cannot chose the businesses they wish to support as the platform determines the lending, taking the investor's risk criteria into account. Investors receive returns of 10% to 15% p.a. The minimum investment amount is stated to be USD 50,000 equivalent.[11] Investors are charged various fees.

Assessment: A digitalized platform that has the potential for disruption. The interest rates charged are reasonable to high, even though NPLs are reported to be low, which may make Pezesha less competitive and disruptive in the long run.

RainFin, South Africa

RainFin was started as a P2P platform in South Africa in 2012 and was the country's first lending marketplace. RainFin's onboarding process is entirely digitalized and borrowers need to complete an online

[8] www.patascore.com
[9] www.pezesha.com
[10] https://app.pezesha.com/sme/terms
[11] https://pezesha.com/faq

registration and application and provide detailed information, including registration documents and information about directors.[12] For the credit assessment, RainFin requires the borrower to provide a minimum credit history of 24 months and at least two current open credit accounts reporting consumer behavior. Businesses must have a turnover and an asset value of ZAR1 million (USD65k). After calculating the credit score, approved loans are posted on the platform and investors' interests are aggregated. Investors receive participation notes that are credit-linked to the underlying loans. RainFin offers loans in amounts of ZAR250k to ZAR100 million, i.e. USD 16k to USD 6.5 million equivalent, without collateral. Loan repayments can stretch up to 24 months. Lenders are from South Africa, both retail and institutional. The platform publishes the interest rates borrowers pay depending on their risk score, including RainFin's estimated default rate for each score. The base rate for a 24 month loan can vary from 9.75% to 19.75, depending on the score.

Assessment: RainFin offers loans at competitive terms. Their requirements in terms of detailed financial information, a minimum credit history of two years, two current open credit accounts mean however that RainFin is more likely to find established SME customers which also banks try to target than lend to the unbanked market.

Fintech Lending Companies and Platforms

Lending platforms and companies which have decision engines and processes driven by fintech are appearing in various places in Africa, promising or threatening to disrupt traditional financial service providers like banks. In contrast to P2P, fintech lenders act like quasi-banks, i.e. lending money in their own name.

PayHippo, Nigeria

PayHippo was set up in Nigeria in 2019 by three founders who saw the demand for loans from millions of SMEs in the country. In November 2021, PayHippo closed a financing round of USD 3 million (Techcrunch, 2021). PayHippo developed its own credit-scoring methodology, which includes machine learning, and analyses data from historical records of the clients to judge the future performance of the SME. Generally PayHippo requires 6 months of bank statements to provide a picture of the business and its borrowing ability. The turnaround time of a loan is targeted to be 3 to 4 hours. Loans have a minimum amount

[12] https://www.RainFin.com/About/CDD

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of USD200 and the average targeted amount is USD 1,300. By Q1 2022 PayHippo had disbursed some 10,000+ loans with a total value of USD 16.5 million. The repayment rate so far amounted to 97% (Hastings-Spaine, 2022). PayHippo generally makes short term working capital loans of 30 to 45 days maturity. It charges a monthly rate of 6% (which translates into an annualized rate of = 101%) plus fees.

Assessment: PayHippo is one among many digital lenders in Nigeria offering short-term loans to SMEs. An interest rate of 6%, whilst it may seem low for 30 days working capital, equates to an annualized rate of 101%. Such a rate cannot be considered sustainable in the long run.

Branch

Branch is a fintech lender that operates in Kenya, Tanzania, Nigeria and India. It is based in the US. Whilst it has generated lending volumes predominantly by consumer lending, SMEs are their focus. Their website cites the example of the small business that takes out a 50 dollar loan to buy things to sell on the market and two weeks later repeats the process. With a Branch loan, merchants can invest in stock or a taxi driver in gas (Hansen, 2019). It is listed here because (a) it has a completely digitalized smartphone-based onboarding and credit-assessment process and (b) its lending rates are notable. Branch did not provide a breakdown how many of its borrowers pay interest rates at the various levels. Neither are NPL numbers available.

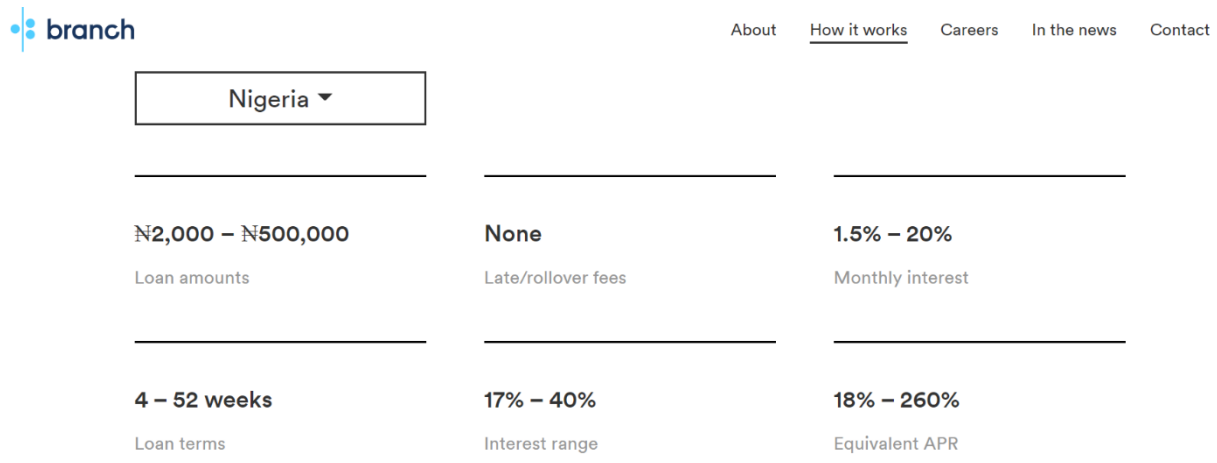

Figure 4. Branch Loan Terms[13]

[13] https://branch.co/how-it-works

Assessment: Lending at interest rates of up to 260%, Branch is expensive and those high levels cannot be seen as sustainable lending to SMEs.

Carbon, Nigeria

Carbon is another fintech that has been operating in Nigeria since 2012, when it was founded under the name of One Credit focusing initially on consumers. In 2019 the company rebranded itself as Carbon. In addition to personal and consumer loans, Carbon offers SME and business loans.[14] The company provides un-collateralised loans to new clients for up to USD 48k equivalent within 48 hours. Loans have to be repaid within 3 months and have a monthly interest rate of 5% (annualized = 80%). Recurring customers can obtain loans up to 6 months at a reduced monthly rate of 4% (annualized 60%).[15] The advantage is that loans are approved fast and via the Carbon App. The SME business has to be operating for a minimum of one year and produce minimum revenues of ₦ 1 million (USD 2,400 per month). Carbon requires bank statements as a proof.

Assessment: Carbon is flexible, fast but not cheap.

Float, Ghana

Float seeks to provide to SMEs a holistic "financial operating system" rather than only loans and their loans have very short maturities of generally 30 days only.[16] The interest rate charged is 1.25% per week, with a maximum of 5% (which would translate into an annualized rate of between 90% and over 1,000% p.a.). In addition Float charges a payment fee of 0.75% per withdrawal.

Assessment: Very high lending rates which are not sustainable.

Lulalend

Lulalend is a South Africa based fintech that lends to SMEs. The application process is digitalized and requires 12 months of financial data derived from a company's bank statement. The minimum turnover of the SME should be ZAR 500k (USD 32k). Loans are available for amounts up to ZAR 5 million (USD

[14] https://sme.getcarbon.co/smefinance
[15] **The APR of these loans is higher than the nominal rate as the borrower is required to make weekly payments of interest and principal.**
[16] www.float.africa/about

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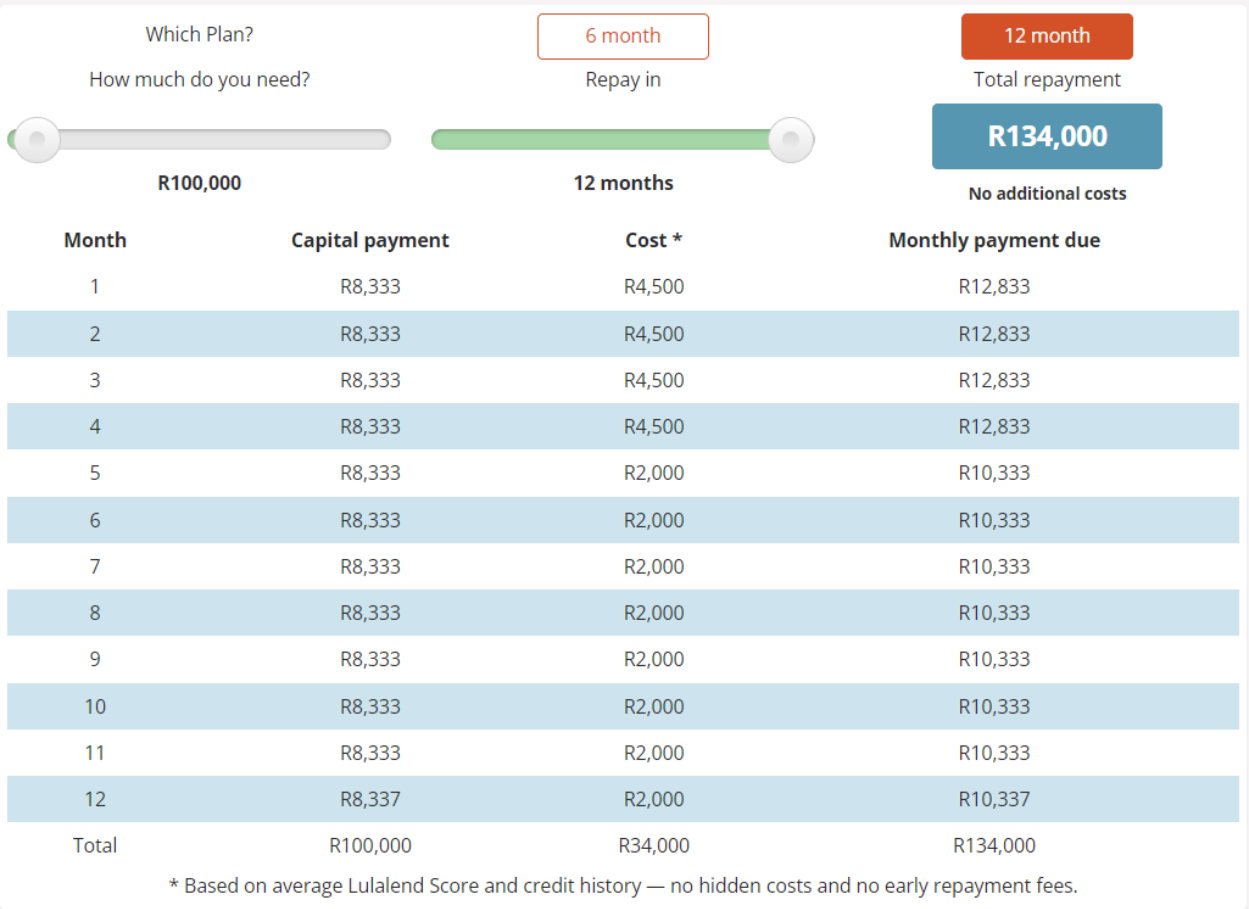
320k) with a repayment of 6 or 12 months, prepayments are possible and the interest rate depends on the credit score. A loan of ZAR 100k would have the following repayment profile and an annualized rate of 81%:



Month	Capital payment	Cost *	Monthly payment due
1	R8,333	R4,500	R12,833
2	R8,333	R4,500	R12,833
3	R8,333	R4,500	R12,833
4	R8,333	R4,500	R12,833
5	R8,333	R2,000	R10,333
6	R8,333	R2,000	R10,333
7	R8,333	R2,000	R10,333
8	R8,333	R2,000	R10,333
9	R8,333	R2,000	R10,333
10	R8,333	R2,000	R10,333
11	R8,333	R2,000	R10,333
12	R8,337	R2,000	R10,337
Total	R100,000	R34,000	R134,000

* Based on average Lulalend Score and credit history — no hidden costs and no early repayment fees.

Figure 5. Lulalend Loan Terms[17]

Assessment: Lulalend has aggressive marketing via social media and seeks to build its portfolio. Given that the prime lending rate was reported by the South African Reservebank (2022) to be 7.75%, an all- in lending rate of about 81% appears to be high and not sustainable.

[17] https://www.lulalend.co.za/HowItWorks

Assessment of Fintech lenders

- Fintechs as lenders or P2P platforms show some characteristics of classical disrupters: they are faster than banks, have no legacy systems or legacy processes and can therefore introduce modern digitalized, AI-supported, KYC and credit processes, thereby greatly reducing the fixed costs per loan made.
- This is in principle allowing also smaller SMEs as well as those SMEs without proper financials to obtain finance. Basing the credit scoring on mobile phone data can lead to greater inclusion as theoretically also unregistered companies can provide a track record that is good enough to come to a credit decision.
- Fintechs are, however, surprisingly expensive which leads to questions of sustainability and which runs contrary to the concept of 'disruption'. Interest rates of over 30% - even 60% - may be manageable as a one off, but cannot become the base for proper working capital finance, let alone for longer term loans to purchase equipment. SMEs would have a strong incentive to seek to replace such loans with cheaper financing, if and when possible.
- The algorithms developed for credit-scoring have not yet been tested and proven over long enough times or credit cycles, despite the fact that Covid provided a 'credit cycle on steroids.' Some fintechs have low NPLs but whether NPLs will remain low in the long run, is a question. One area of concern is the fact that by only analyzing 3 or 6 months of bank statements, the full picture of a SME cannot be established and longer dated loans cannot be made.
- One also has to bear in mind that non-performing loans need work-outs, which are labour-intensive. Banks generally have whole departments dealing with NPLs in order to restructure loans or at least recover some of the money lent. Fintechs may struggle to deal with an increase in non-performing loans and may face reputational issues when selling non-performing loans to collection agencies. Having no human – i.e. only digital - contact to a borrower may work when the business runs well, but may be problematic in times of trouble.
- A big problem for fintechs remains funding. In order to expand, fintechs need to attract both equity and debt finance. In order to obtain finance, fintechs need to prove that their credit scoring methodology is robust, also in a downward cycle. Furthermore, in order to obtain finance from impact investors, fintechs need to be able to demonstrate that they are ESG compliant and do not charge usury interest rates. Impact investors are likely, in the medium term, to shun fintech lenders that charge usury rates. But without funding, fintech lenders will not be able to grow their lending business and seriously disrupt banks.

- This leads to a catch 22 situation where fintech lenders may need to charge high interest rates in order to cover potential loan losses due to imprecise credit assessments. And as long as this is the case, they are likely to struggle finding credit-funding themselves and therefore cannot expand their lending operations. And with limited lending operations fintech lenders may not gather enough credit relevant data to feed the machine learning algorithms of the credit-assessment modules.

Conclusions and Recommendations

Fintech is in the process of closing the financing gap for SMEs in Africa. But 330 billion dollars is a big gap to close. Most progress is likely to come from technology that is making processes easier and risk assessments more accurate. Payments and transfers have already been successfully digitalized (Maritz, 2021 and PwC, 2022), which in turn helps the credit assessment processes as payment data are an important input in credit scoring. According to PwC, 90% of banks' useful customer data come from payments (PwC, 2022). Technologies digitalizing KYC and credit-scoring are used by P2P platforms, fintech lenders and banks already today, reducing processes that used to take weeks to hours. This should make SME lending far more attractive as the costs of making loans is greatly reduced. Even smaller loans can become economical under such circumstances.

Fintech lenders were the disrupters of the last five years but it may well be that these disrupters will themselves now be disrupted by banks that succeed in integrating fintech processes and credit assessment methodologies in their existing SME businesses. Some fintech lenders may turn themselves into challenger banks and gain access to depositors, which would help them grow.

Cycle of Success

The cycle of success for fintech-based SME lenders, both banks and fintech companies, may be slower than wished for. Lenders need more SME track records in order to be able to utilize data. Better data will lead to a more precise credit scoring. Digitalising data-based processes will cut operational cost, leading to better and more predictable returns which, in turn, should lead to more equity and debt funding for such lenders, which, consequently, would power the expansion of SME lending, leading to more and better data. More predictable returns lead to more competition and reduced interest rates which should lead many more SMEs to leverage and grow their business via debt.

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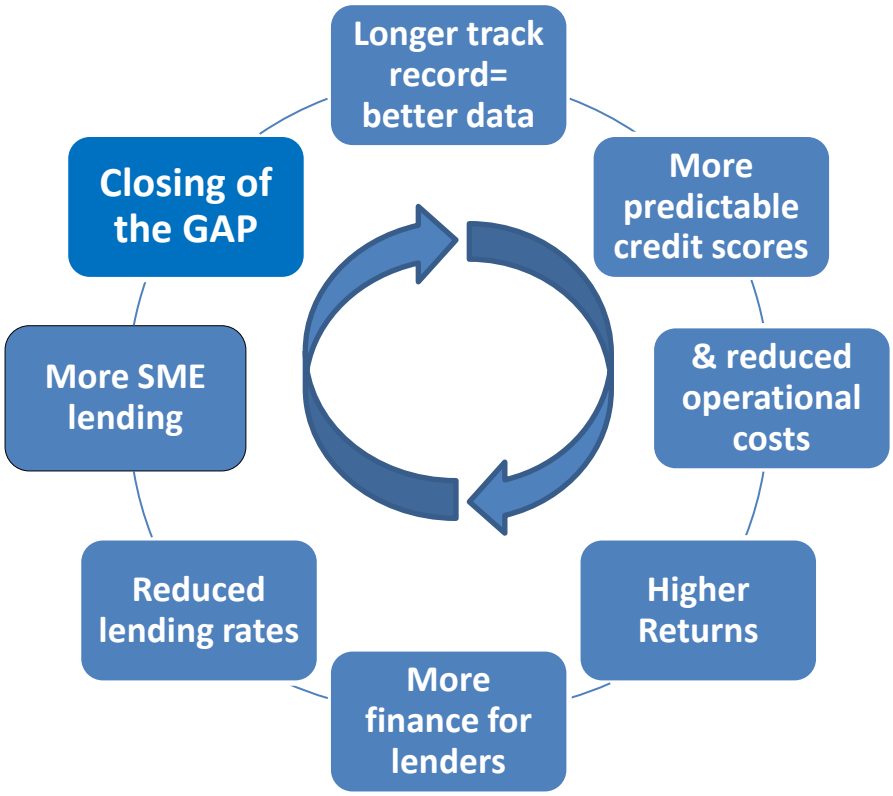

Figure 6. Cycle of Success

This cycle of success is applicable to both fintech lenders and banks. It is unlikely that this cycle will be fast and that the financing gap for SMEs will be closed in the immediate future. But with improved processes and credit assessments SME lending will become more profitable and sustainable. Profitable businesses attract funding and it is likely that there will be more finance available for banks, P2P platforms and fintech SME lenders so that an expansion of SME lending can happen with positive impact on the economy, GDP growth and increased employment in Africa.

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