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FINTECH DIGITAL PLATFORMS – AN INVESTIGATION INTO FINTECH DIGITAL PLATFORM ACTIVITY IN SOUTH AFRICA AND THEIR REGULATORY IMPLICATIONS

RESEARCH DOCUMENT

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IFWG
INTERGOVERNMENTAL FINTECH WORKING GROUP

FSCA
Financial Sector Conduct Authority

CONTENT

EXECUTIVE SUMMARY

The intermediation of linking consumers and producers through a digital interface (the digital platform business model) has become a preferred and dominant way businesses across all industries choose to serve their customers and engage with their suppliers. The digital platforms business model is also playing an increasingly significant role in the financial sector with upstarts as well as incumbent financial institutions actively pursuing the business model.

This is particularly evident in what is currently the "FAIS" environment, being the provision of intermediary services and advice in relation to financial products[1]. Some platforms that connect financial customers to a provider of a financial product are behaving as intermediaries and are providing intermediary services. The provider is the licensed entity to issue the financial product that differs from the digital platform. Owing to these developments it has become important for financial regulators to understand the implications and adapt in the best way possible to protect financial customers.

The efficiency of digital platforms in financial services has the potential to benefit consumers in several ways. These benefits include access and inclusion for consumers previously excluded, low fees and transaction costs resulting in more affordable products, customer-specific product offerings, and a highly scalable business to meet a change in customer demand and how products and services are consumed. These benefits are evident in relation to the provision of intermediary services and advice.

However, the efficiencies offered by digital platforms are also accompanied by regulatory risks for regulators to mitigate, such as customer being locked into digital platforms , outsourcing to third party dependencies and lack of data privacy and lack of consumer education. Competition risks are introduced when platforms raise barriers to entry, limit switching, bundle and cross-subsidise products. Digital platforms operate on large quantities of data leading to data breaches, abuse and privacy risks. Additionally, consumers might not fully be aware of what they are getting themselves into when participating on a digital platform.

Responding to the changing landscape, the FSCA and IFWG is considering suitable and proportionate regulatory interventions to mitigate risks and promote the fair treatment of financial customers. Areas for further considerations include:

- Digital platforms might need to have a liability and ethics framework governing their data and consumer protection practices.
- Local registered digital platforms might need to determine the safety and effectiveness of the financial products they intermediate for by consumers.
- To address the concentration risk and dependency on third-party service providers offering cloud on other IT infrastructure, the outsourced services might need to be interoperable. Furthermore, data portability in the cloud environments might need to be explored further.
- Digital platforms can consider responsibility to regularly educate and fully disclose to consumers how financial products and services they intermediate work.
- As well as determine what steps can be taken to limit the cross-border risks.
- To address conflict of interest, the digital platforms can consider a publicly available conflict of interest management policy.

1 The Financial Advisory and Intermediary Services Act no 37 of 2002 (FAIS Act), determines the following:
- Intermediary services refers to linking a consumer to product supplier.
- Advice refers to guiding or steering a consumer to a specific financial product.

WHAT IS THE PURPOSE AND WHY ARE WE PUBLISHING THE FINTECH DIGITAL PLATFORMS RESEARCH PAPER?

The purpose of the Research Paper is to share insights from the research work undertaken by the Financial Sector Conduct Authority's (FSCA) and IFWG regarding Fintech digital platform business models, particularly in relation to intermediary services and advice.

Comments provided by stakeholders on the Research Paper will inform the Fintech Digital Platforms Position Paper to follow. Inputs can be sent to Dino.Lazaridis@fsca.co.za

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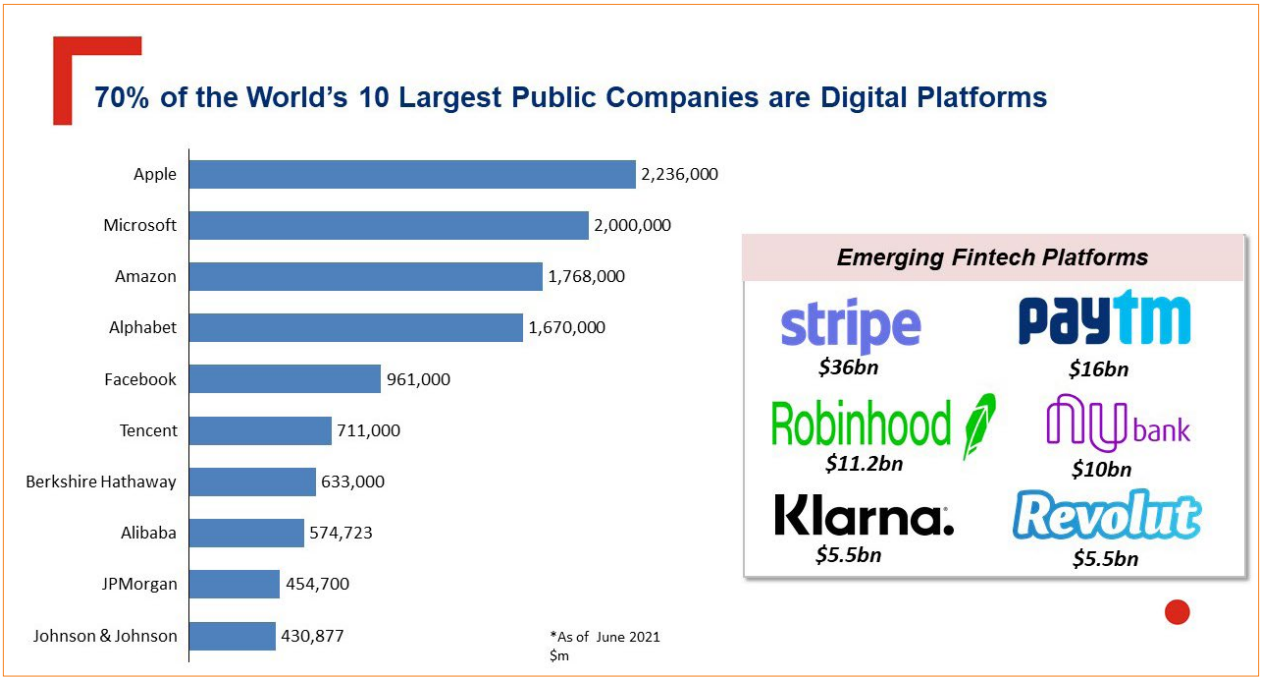
INTRODUCTION

The digital platform-based business model has grown in prominence

The digital platform-based business model, which involves the intermediation of consumers and producers through a digital interface, has become one of the primary ways businesses serve their markets in the digital era across most sectors. The financial sector, in particular, has witnessed a growing shift towards the digital platform-based business model.

The platform based business model is sparking significant and unprecedented growth trajectories. Where it previously took Fortune 500 companies an average of 20 years to reach a billion-dollar valuation, today's platform-based digital start-ups can get there in four years (Morvan, Hintermann, & Vazirani). The Digital platforms-based business model is largely responsible for this shift. Seventy percent of the world's 10 largest public companies are digital platform business models (March 2020). Furthermore, the top six emerging private market fintech start-ups are all leveraging the platform-based business model to serve their markets.

Exhibit 1: world largest Digital platform companies and emerging fintechs Platforms

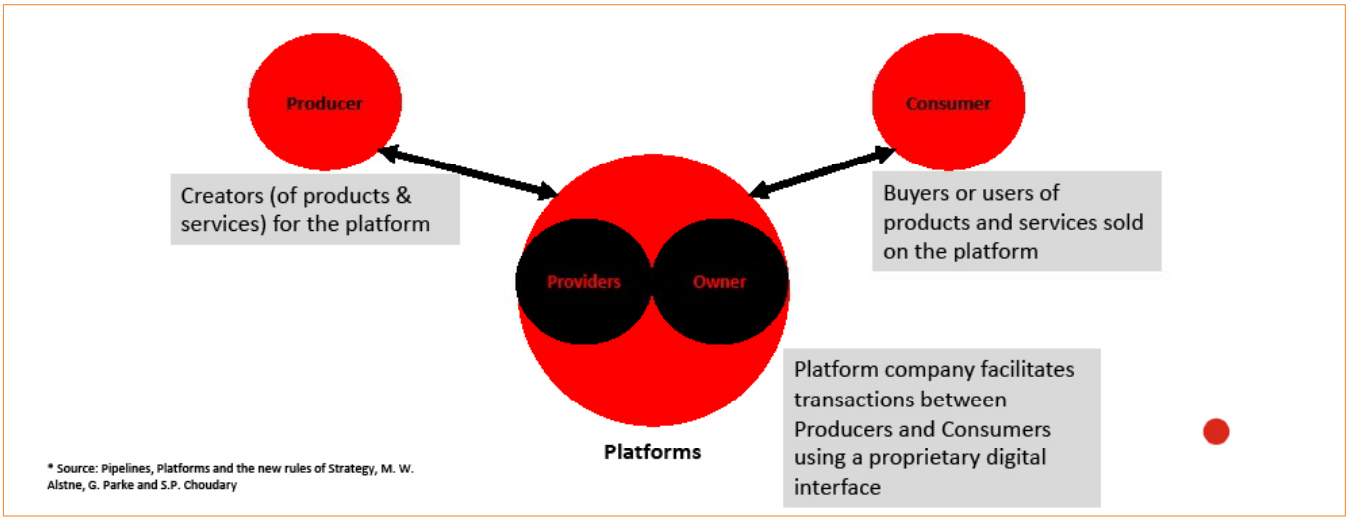


Source: Fortune 500 List 2020

What is a Digital Platform?

A digital platform can be defined as a technology-enabled business model that creates value by facilitating exchanges (the intermediation of services) between consumers and financial product producers. [Illustrated below in Exhibit 2].

Exhibit 2: Schematic representation of the Digital Platform business model



Source: Pipelines, Platforms and the new rules of Strategy, (Alstyne, Parker, & Choudary , 2016)

Producer creates financial products and services to be sold on the platform. The producer benefits by having a large centralised customer base to purchase products and services. *e.g. a insurance company on a travel aggregation platform.*

Consumer accesses the platform to discover products and services. The consumer benefits by having a large centralised list of products and services. *e.g. a prospective saver offered various fixed deposit rates on a digital platform*

Platform Provider facilitates exchanges between the financial product producer and consumers on a digital interface. The platform provider benefits by not needing to hold the financial license to issue the product nor the need for many physical assets or locations for consumers to purchase the goods and services

Types of Digital Platforms

There are eight different types of Digital Platforms. These includes, (1) Computer Platform, (2) Crowdsourcing Platform, (3) Data Harvesting, (4) Interaction Platform, (5) Marketplaces, (6) On Demand Platform, (7) Crowdsourcing Platforms and Data Harvesting Platforms.

Exhibit 3: Types of Digital Platforms

1. **Computer Platform** is the environment in which a piece of software is executed. Used as storage, protocol and computing underpinnings of almost financial digital platforms service *e.g. iOS, Android, Windows, MacOS, Alexa, SmartThings etc.*
2. **Crowdsourcing Platform** is when goods and services are obtained from a large group of users. *e.g. Lending Club, Circle Up, YouTube, TripAdvisor, Yelp, Medium, Pinterest etc.*
3. **Data Harvesting Platform** is where a large amount of user data is created and collected. *e.g. Waze, Moovit, OpenSignal, Sense360, Inside Sales etc*. Data Harvesting Platforms use the data collected to risk rate and credit score in offer financial services, *e.g. M-Pesa.*
4. **Interaction Platform** is used by people to build social networks or a social relationship with other users. *e.g. Facebook, WhatsApp, WeChat, LinkedIn, Twitter, Snapchat etc.* With the very large user base financial products and services are added over time such as Diem with Facebook.
5. **Market Place Platform** brings together buyers and sellers. *e.g. Alipay, Compare Asia Group offer financial services via a marketplace. Other marketplaces eBay, Amazon, AirBnb, Taobao etc.*
6. **On-Demand Platform** is where consumers request services from suppliers approved by the platform. *e.g. for insurance offerings Lemonade, followed by Uber for transportation and, MrD for food delivery etc.*
7. **Technology Platform** Platform is a base upon which other applications, processes or technologies are developed. *e.g. AWS, Azure, Bluemix, Twilio, Thingworx, Predix, Jasper, Layer etc.* These technology platforms form the base foundations for financial services to be developed on.
8. **Utility Platform** performs functionality bringing utility to users. *e.g. salesforce, Waze, Moovit, Google Maps, Nexar*

Existing Regulatory treatment of intermediation in the Financial Sector might not adequately address digital platform-based Financial Activities

The intermediation of financial services is currently regulated under the FAIS Act, which defines a financial service provider (FSP) to be any person/entity that furnishes advice or renders any intermediary services. Under the FAIS Act, intermediary services is defined as when FSPs act as intermediaries between their clients and product suppliers, where the client does not deal directly with the product supplier. Intermediary services include any act (other than giving advice) where an FSP acts on behalf of a client or product supplier; the keeping in safe custody of a financial product in which a client has invested e.g. a share certificate; the collection of premiums from clients on behalf of product suppliers receiving, submitting or processing a client's claim against a product supplier buying, selling or dealing in (discretionary or non-discretionary basis) financial products administrating any financial product maintaining or servicing a financial product e.g. the nomination of a beneficiary on a policy or updating bank details".

While the FAIS Act covers basic intermediary financial activities performed by platform-based FSPs, new activities and practices have emerged stemming from platform-based business models, that need to be sufficiently accounted for under the FAIS Act in order to ensure consumer protection, financial inclusion, financial stability, fair treatment of customers, cybersecurity, data ethics, data protection and privacy among many of the new emergent risks introduced by platform-based business models in the financial sector.

Key Characteristics of Leading Digital Platforms

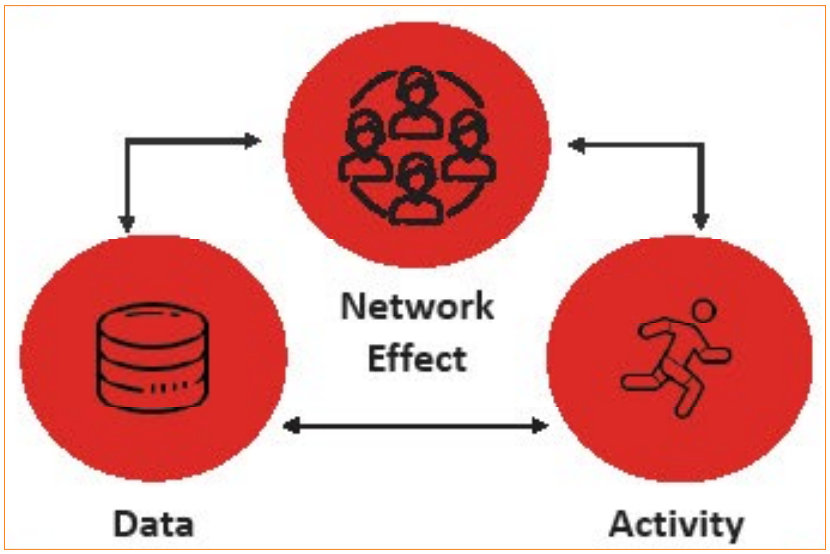
Leading Digital platforms typically have six key characteristics in common. Box 1 below provides a detailed description of such characteristics:

BOX1
Artificial Intelligence (AI) is computer systems able to perform tasks that traditionally have required human intelligence. Digital platforms utilise AI to accelerate automation, eliminate human errors and derive efficient business intelligence. Operationally, AI can lead to lower human capital costs and enable frictionless 24/7 customer interactions.
Data Analytics is the discovery, understanding, and communication of meaningful patterns in data. Data is a central factor for digital platforms. Analytics from the data enables the digital platform to internally develop and control products and services offered.
Low Transaction Costs. Digital platforms carrying little physical assets and the digital nature of the business model results in low to nearly zero transaction costs. The low transaction costs on the digital platform can be experienced by the supplier or consumer of goods and services. Transactional costs are closely linked to trust amongst the stakeholders. A higher level of trust can further reduce transactional costs.
Openness/Access Control occurs when digital platform defines its own policy for suppliers and consumer to participate on the platform. This policy can take the form of rules and conditions that can influence the quality of the products, services and data offered. If subsequent exclusion is possible, the platform has an instrument at its disposal to ensure that players on the platform act professionally and adhere to the defined agreements.
Personalisation consists of offering a tailor-made product or service to accommodate a specific individual or group. The digital platforms aim is to understand the intent and then dynamically and uniquely tailor experiences and context in a seamless manner across channels. This personalisation is often time and place specific.
Scalability is the ability of the digital platform to grow and manage an increase in demand. A digital platform can respond extremely quickly and flexibly to additional demand as additional computing capacity is not a technical obstacle and can be adapted quickly and flexibly. The cross-border nature of the digital platforms enables an international reach to suppliers and consumers.

Data, Network and Activity model

Key drivers underpinning the digital platforms business model can be understood through the use of "Data", "Network effects" and "Activity" (DNA) model (Bank of International Settlements Annual Report, 2019), which represent key mutually reinforcing factors that platforms leverage to rapidly scale their businesses. The DNA model suggests that digital platform-based business models collect large quantities of "Data". The data is then utilised as input to create and offer a range of services that exploit the "Network effects". As more users are attracted to the platform this generates user "Activity", which in turn generates further data, network effects, and more activity, and so the loop continues as the platform rapidly scales. We will unpack each of these important attributes below.

Exhibit 4: Data, Network and Activity

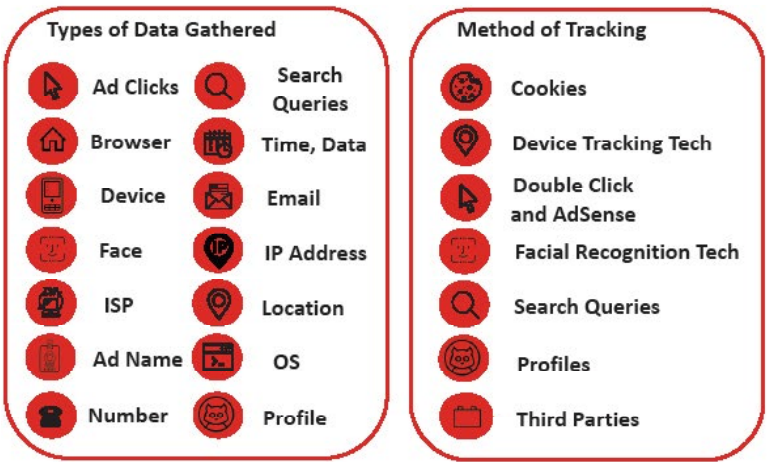


Source: BIS 2019 Annual Economic Report

Data

The largest data-driven opportunity is the ability of a platform to capture value by creating new products and services, improving user experiences, managing risk and increasing productivity. Consumer and suppliers generate large quantities of data when participating on a digital platform. The source and type of data used in the DNA loop vary across digital platforms. Once data is gathered, users are tacked over time to build a more dynamic user data profile. Common types of data gathered, and tracking methods are listed under exhibit 5 below:

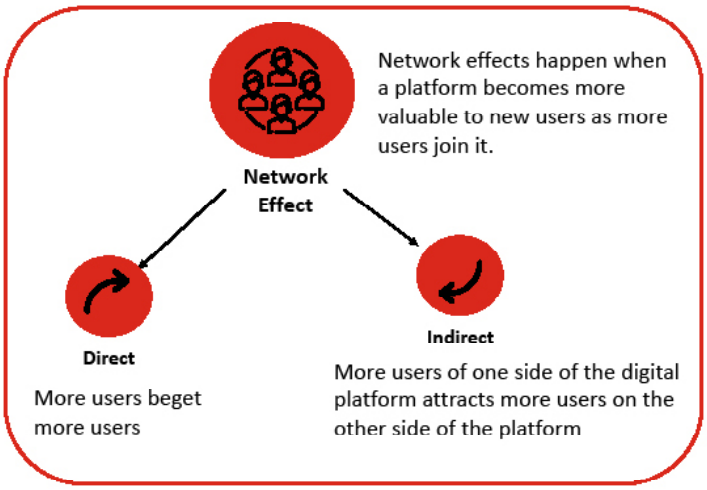
Exhibit 5: Types of data gathered and tracking methods



Network Effects

Network effects happen when a platform becomes more valuable to new users as more users join it. A Direct Network effects occurs when more users beget more users. An indirect network effect occurs when more users of one side of the digital platform attracts more users on the other side of the platform. This could be on the supplier or consumer side.

Exhibit 6: Network effect schematic presentation

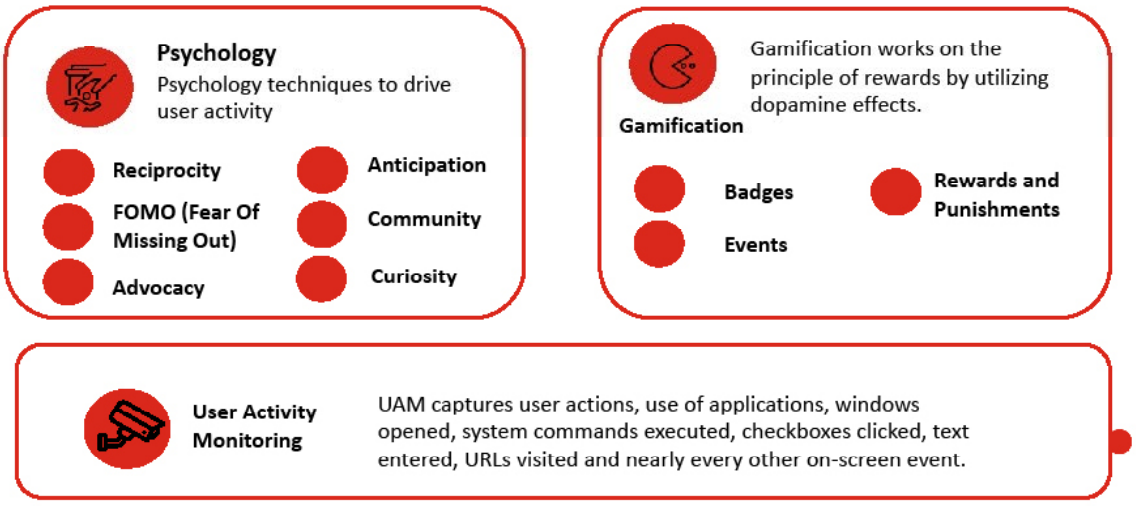


Products and services developed from data collected is offered to suppliers and consumers exploiting the network effects. Network effects are assets to digital platforms that are not always fully captured on balance sheets. Technology can bring an initial advantage to a digital platform. However, over time this advantage decreases as the technology can easily be copied. A network of users on a digital platform cannot easily be copied like technology. The greater the network effect, the greater the market share and the higher the barrier to entry. The Internet is a facilitator of the network effects due to the digital nature of platforms.

Activity

To complete the DNA loop, digital platforms use various nudges to drive behaviour. This activity leads to further supplier and consumer data, used to develop products and services resulting in further activity creating a perpetual loop.

Exhibit 7: Digital Platforms activity



Psychology is used to drive user activity. The psychology techniques used are:

- **Reciprocity,** this is when a gift is received a supplier or consumer feels compelled to return the favour..
- **Fear of Missing out,** digital platforms instil the fear of missing out through expressing limits.
- **Drive Advocacy,** supplier and consumer trust referrals from their peers and reviews.
- **Anticipation,**this technique uses reveal campaigns and drip-feeding contents in the lead up to any new product launch or content release.
- **Community,** this practice builds on an inherent need to be a part of a social community and to feel connected to others.
- **Curiosity,** triggering curiosity can get activity to get emails opened, social stories swiped, call-to-actions clicked, and products purchased etc

Gamification is used to drive further user activity. Gamification is taking the competitive nature and structure of gaming and applying them to non-game contents. Gamification works on the principle of rewards by utilising dopamine effects. Gamification can take on several forms:

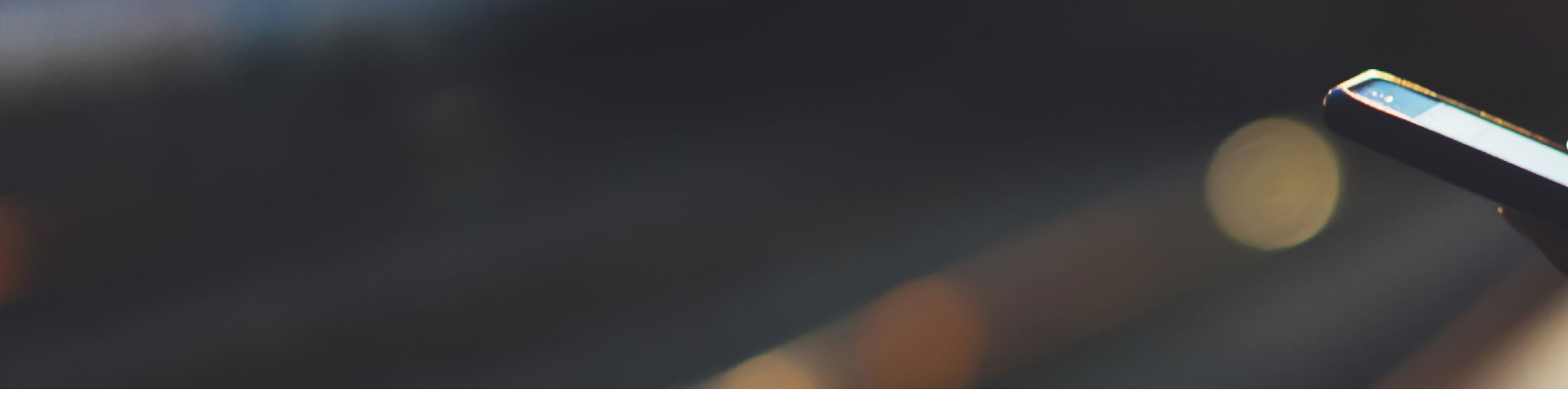
- **Badges,** elements that symbolise rewards given to suppliers or consumers for their achievements. Badges act as a target setting as well as a recognition device that motivates the suppliers and consumers to work hard towards the gamification objectives. The prospect of earning more badges is recognised as one of the activity driving tools.
- **Points** are typically rewarded for the successful accomplishment of specified activities within the gamified environment, and they serve to numerically represent a supplier's and consumer's progress.
- **Leader boards,** rank players according to their relative succrank players according to their relative success, measuring them against a certain success criterion. Competition caused by leader boards can create social pressure to increase the supplier's and consumer's level of activity.

User Activity Monitoring (UAM)) is further used to drive activity in the DNA loop for digital platforms. UAM captures user actions, use of applications, windows opened, system commands executed, checkboxes clicked, text entered, URLs visited and nearly every other on-screen event. The UAM data is used to develop further products, services and nudges to drive activity.

Digital Platforms revenue models

Digital Platform monetise value in various ways. They must always answer the questions of value creation, value delivery and value capture. Monetisation of the digital platform begins with an analysis of where value is located. Tapping into the value created can take on various forms:

- **Subscription,** A supplier or consumer pays a recurring price at regular intervals for limited or unlimited access to a product or service. **Freemium**, is a modified form of the subscription model in which a certain part of the platform products and services are made available to certain suppliers or consumers free of charge. An initial free activity on the platform lowers the entry barrier and creates the opportunity to convince suppliers or consumers to access the full range of services associated with the payment of a subscription fee through persuasive offerings.
- **Transaction,** suppliers and consumers are charged for a successful transaction. Most frequent when the supplier and consumer sides are of similar proportions.
- **Data Monetisation,** this form of monetisation can take the two forms. **Direct** monetisation where digital platforms selling direct access to their data to third parties. **Indirect** monetisation where data is optimised to save costs, avoid risk and streamline operations as well as new data-driven opportunities and customers (McKinsey & Company, 2017).
- **Admission** is when the digital platforms charge a fee for individual actions are paced on the platform. The admission fee is mainly used to monetise the supply side and to bring standardised price structures onto a platform with infrequent, inhomogeneous or individualised transaction units.
- **Products and Services,** the digital Platform acts as a complementary actor on its own platform.
- **Arbitrage,** digital platform acts as an intermediary of supply and demand by setting prices of goods and services.



DIGITAL PLATFORM USE CASES IN FINANCIAL SERVICES

IIntermediation in financial services is not a new phenomenon but the pace and scale of digital platform intermediation have significantly increased in financial services. Digital platform-based intermediation in financial services has however grown to be of the primary means of serving customers and engaging suppliers. There are five key use cases that are increasingly taking shape in the financial sector, both in South Africa and globally. See box 2 below for a detailed description:

BOX 2
Investments: Investments on digital platforms can take the form of investment crowdfunding. The digital platform enables consumers/investors to select and put capital directly in a variety of asset types from business projects to financial instruments. Capital and project selection process on an investment crowdfunding platform is decentralised to the crowd.
Alternative Lending: Lending on digital platforms can take the form of peer-to-peer (P2P)/ loan-based crowdfunding. The digital platform enables consumers to select and lend directly to a variety of borrower types. Capital and debtor selection processes on an alternative crowdfunding platform are decentralised to the crowd. Digital platforms create an easy-to-use interface for consumer and lender with menus, rankings, and recommendation engines. Platforms drive activity by using gamification, psychology and user activity monitoring. The digital platform facilitates the loan and repayments between the consumers and lenders.
Insurtech: Insurance on digital platforms can take the form of peer-to-peer (P2P)/ crowd-based insurance. The digital platform enables policyholders to insure themselves by pooling funds in a network to pay claims to other policyholders on their network.
SuperApps: SuperApp digital platforms have a large variety of services on the supplier side such as payments, lending, insurance, social networks, messaging, ride-hailing, food delivery, classifieds and ecommerce. On the other side of the platform, the consumer receives a convenient, personalised and affordable offering.
Mobile Money: MMobile money digital platforms have mobile phones, retail good, airtime, and utility service on the producer side of the platform. On the other side of the platform, the consumer receives a convenient service that is safer than cash and ultimately a substitute for banking services.

To gather more insights on Digital Platforms activities across the world, various organisations conducting their financial activities on Digital Platforms were profiled. The organisations activities entail, Mobile money, SuperApps and Crowdfunding. Below find the detailed account:

Case Study 1: SuperApps, WeChat

For the last 20 years the dominant digital platform app has been the "single purpose" apps. As described in the name, these apps solve a single purpose for consumers. In the last five years, the trend has shifted from "single purpose" app to SuperApps.

In 2011, Tencent launched the messaging app Weixin and in 2012 rebranded to WeChat. The users and hence network effect grew alongside SuperApp functionality. Within 14 months of launching WeChat had 100 million registered users, six months later 200 million registered users. In 2018, there were over 1 billion monthly active users and in 2019, 1 billion daily active users.

As of Q4 2019, 1 billion WeChat Pay transactions take place per day. A total of 72 million merchants are registered on the digital platform payment app. WeChat started off as a messaging app but today has vast array of services. Some key features include:

WeChat Pay is a digital wallet service which allows users to perform mobile payments and send money between contacts. Although users receive immediate notification of payment transactions, the WeChat Pay system is not an instant payment instrument. The funds transfer between counterparts is not immediate. In 2014, for Chinese New Year, WeChat introduced a feature of disrupting virtual red envelopes that enables users to send money to contacts and groups as gifts. Modelled after the Chinese tradition of exchanging packets of money among friends and family members during holidays. This feature significantly increased the adoption of WeChat Pay to overtake Alibaba Group's Alipay with 800 million active users in 2019.

WeChat Mini Program is an app developed to run within WeChat. Businesses create mini apps WeChat can install these widget addons. In 2018, 580 000 mini apps programs were developed. Mini Programs enables businesses to sell products and services on WeChat directly to consumers, using WeChat Pay as the payment gateway. This enables third parties to sell financial services directly to the over 1 billion WeChat userbase.

Enterprise WeChat is a feature to assist users separate personal and work contents on the platform and human resource functionality. This functionality includes the ability for users to apply for leave days, keep track of leave, track and claim for work related expenses and keep records of time spent at work.

Moments is a social feed of friends' updates. This feature enables users to post images, text, and short videos. Friends in the contact list can give thumbs up to the content and leave comments. Moments can be linked to other social media accounts and can automatically post Moments content directly on competing platforms.

Case Study 2: Mobile Money, M-Pesa

In 2007, Safaricom and Vodacom Group launched the mobile money service M-Pesa in Kenya. M-Pesa, supported by the regulations of Kenya's Central Bank, was the single operator of the scheme when it was created. In 2020, M-Pesa has had over 42 million users and is active in Egypt, Ghana, Democratic Republic of the Congo, Kenya, Tanzania, Mozambique and Lesotho. M-Pesa was initially developed to distribute microfinance loans, it quickly became apparent that there were many user cases beyond the original business model.

M-Pesa allows users to deposit, withdraw, transfer money, pay for goods and services, access credit and savings. To access the service, users must first register at an authorised M-Pesa retail outlet. Opening an account is linked to users SIM phone number. The service is accessed through an application on the SIM card in the mobile phone. It works on any phone, including very basic models commonly found across Africa. The service converts users' mobile phones and SIM cards into secure accounts, accessed by entering a PIN number. Users can then make payments to other users by sending SMS messages through GSM networks, rather than through the banking system.

User deposit and withdraw cash from their accounts by exchanging cash for electronic value at a network of retail outlets referred to as agents. In 2019, there was 160 000 agents across Kenya and a total of 400 000 agents across all regions. Most agents are very small. Some are entirely specialised, and others are run as a side-line in a shop. Agents are paid a fee by Safaricom each time they exchange cash for M-Pesa value on behalf of customers.

M-Pesa's success can be attributed to a number of factors (Cambridge Centre for Alternative Finance, 2019):

High demand for secure electronic cash storage services due to security concerns related to physical cash storage, the need to easily receive remittances from migrant workers, and the high fees of existing intermediaries.

Well-developed agent networks enabled the service to scale quickly and create a network effect.

High mobile phone penetration and low access to finance due to an undeveloped physical infrastructure.

Following the roll-out of M-Pesa's storage and payment functionalities, 55 organisations are leveraging M-Pesa's payment rails to make essential services and utilities in energy, health, education, and water more accessible to those who lack adequate access e.g., agricultural index insurance and savings and loans offered by the Commercial Bank of Africa.

Case Study 3: Crowdlending, LendingClub

In 2006, LendingClub was founded as a crowdlending digital platform bringing borrowers and investors together. In addition to the crowdlending digital platform, LendingClub offers loan trading on a secondary market. LendingClub enables borrowers to take up unsecured personal loans between $1 000 to $40 000 for individuals and $5 000 to $500 000 for businesses. Over 50 billion dollars have been lent and invested on the digital platform, serving over 3 million customers. LendingClub facilities the most unsecured personal loans in USA.

Business Model

LendingClub enables borrowers to create loan listings on its website by supplying details about themselves and the loans that they would like to request. On the basis of the borrower's credit score, credit history, desired loan amount and the borrower's debt-to-income ratio, LendingClub determines whether the borrower is creditworthy and assigns a credit grade that determines the interest rate and fees. To reduce default risk, LendingClub only lists high quality borrows resulting in approximately 90% of the loan applications being declined.

Loans are funded in two ways, with investors funds or by using a line of bank credit and then packaging and selling the loans to large investors.

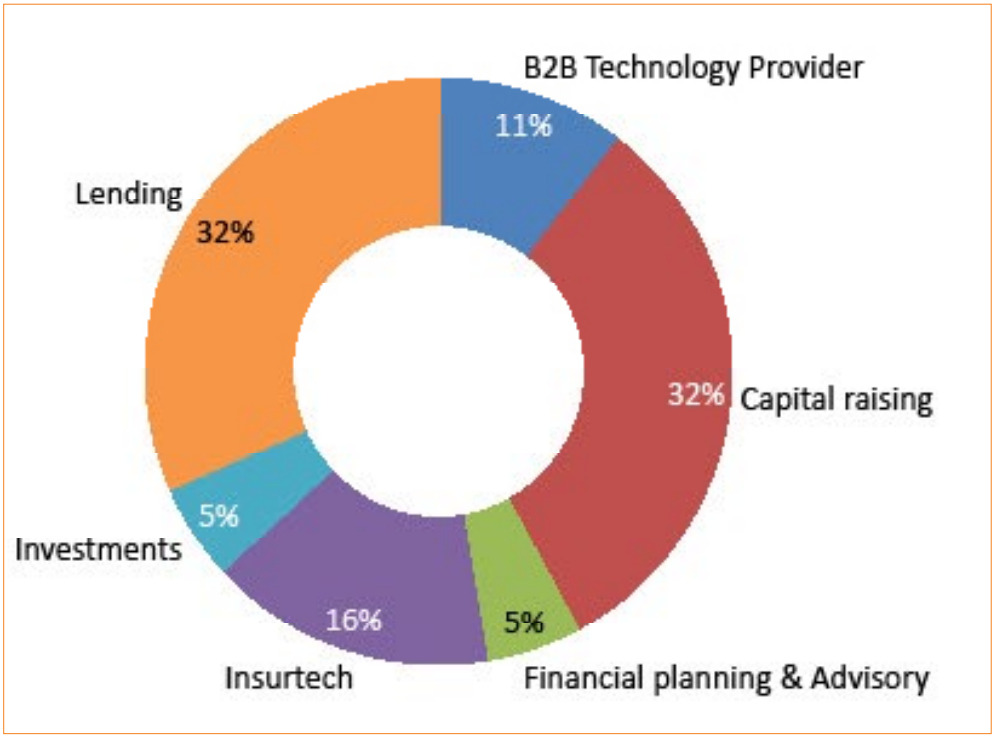
Investors can search and browse loan listings on LendingClub's digital platform and select loans that they want to invest in. Investors are information supplied about the borrower such as loan amount, grade and loan purpose. Investors make money from interest charged the borrower. Rates vary from 6.03% to 26.06%, depending on the credit grade assigned to the loan requested.

LendingClub makes money from both side of the crowdlending digital platform. By charging borrowers an origination fee and investors a service fee. The size of the origination fee depends on the credit grade and ranges from 1.1–5.0% of the loan amount. The size of the service fee to investors is 1% on all amounts the borrower pays.

SOUTH AFRICA FINTECHS PLATFORM SURVEY INSIGHTS

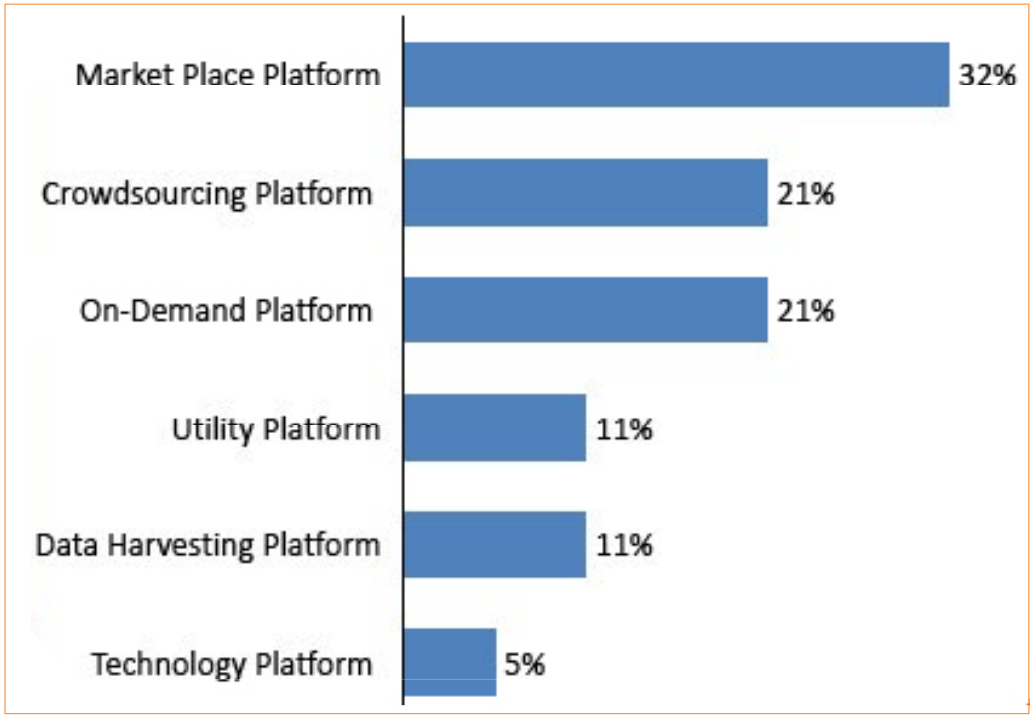
During the course of 2020, the Financial Sector Conduct Authority conducted a survey to gauge digital platform sentiment and local insight. The survey reached out to over 70 small start-up digital platforms to large incumbent financial service providers. The format of the survey was written and in-person interviews. The survey reached out to approximately 10% of the fintech start-ups identified in the 2019 Intergovernmental Fintech Working Group scoping report.

Exhibit 8: Variety of fintech platform segments surveyed



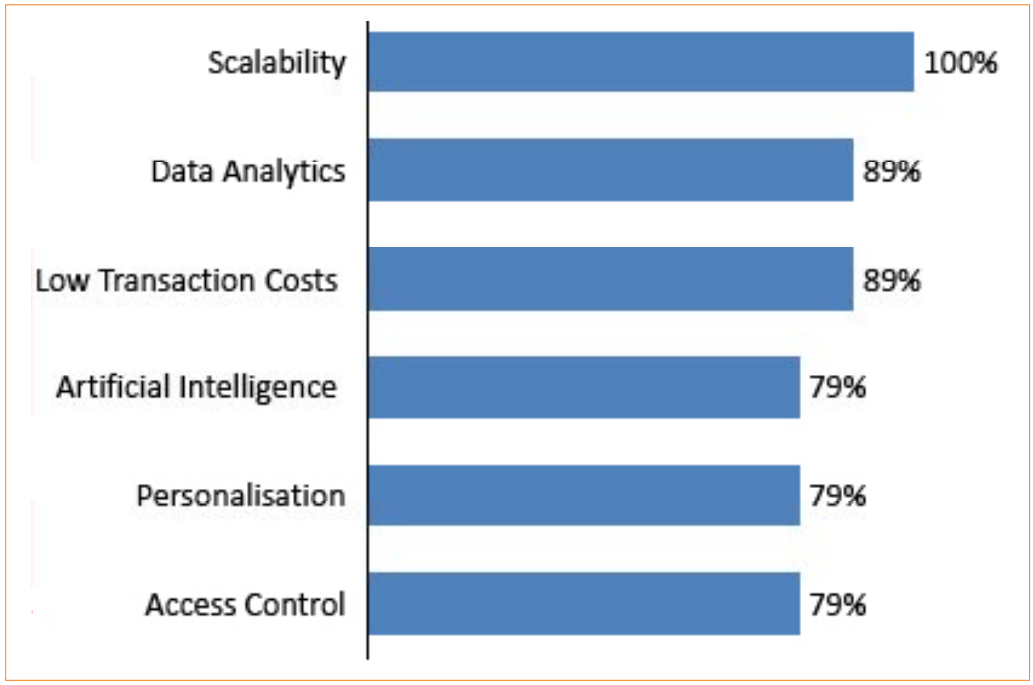
Credit and capital raising through the banking sector is often challenging for SMEs due to limited financial record keeping, collateral, unproven business models and bank's risk appetite. Lending and capital raising platforms were the most prevalent platform segments surveyed. Lending and capital raising on digital platforms offer SMEs an attractive alternative capital raising mechanism to the banking sector. Capital and project selection follow two possible approaches. Decentralised to the crowd to select the project and provide capital. Alternatively, the capital and project selection can be centralised to the digital platform.

Exhibit 9: Types of platforms surveyed



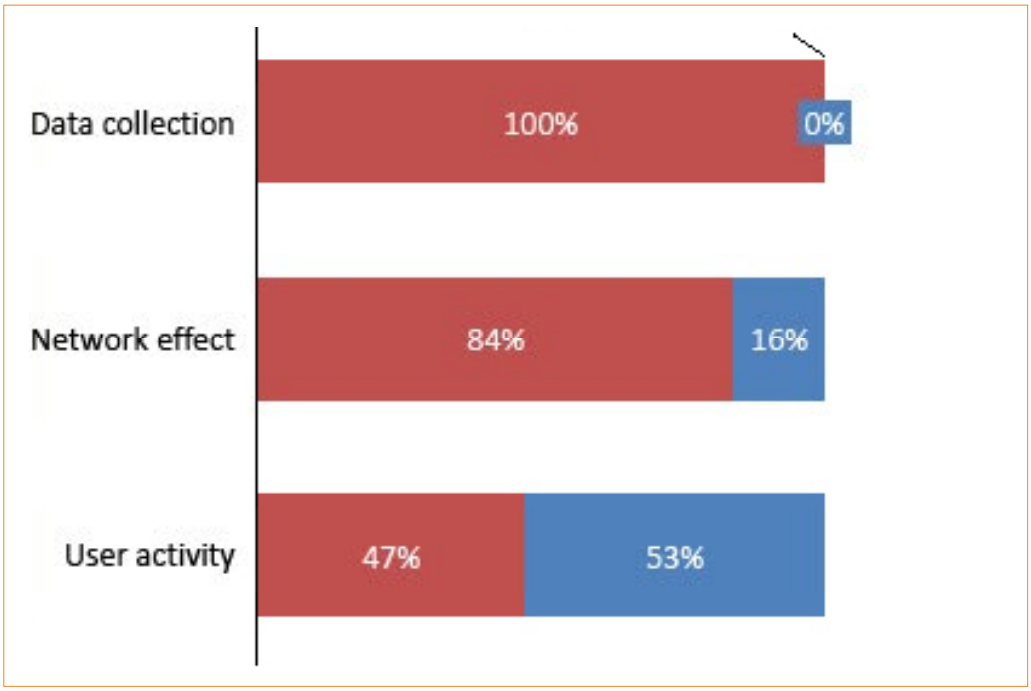
Marketplace and crowdsourcing and on-demand platforms were the most prevalent types of digital platforms.

Exhibit 10: Key platform features



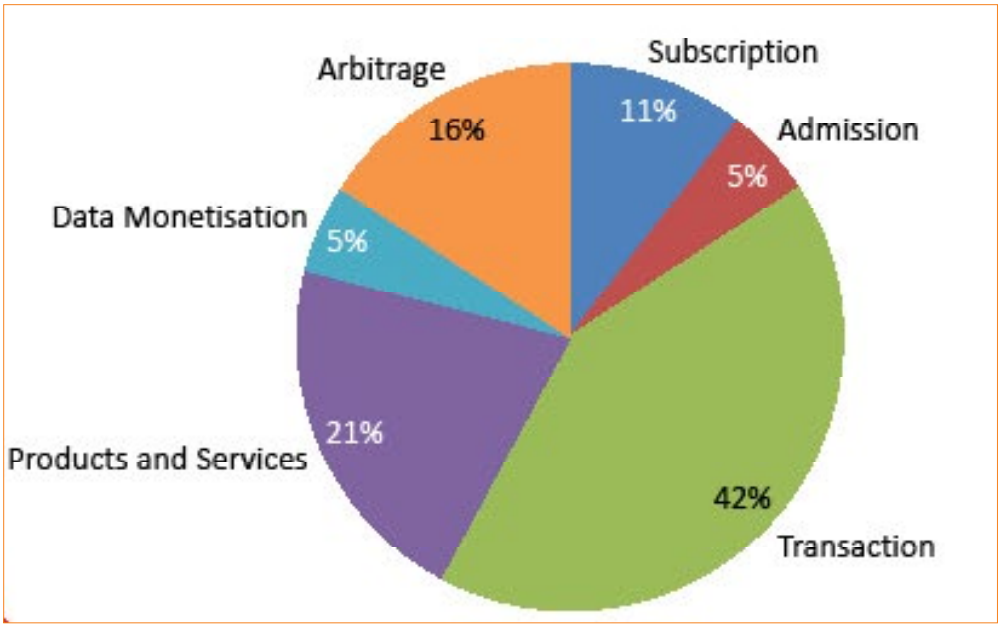
All six common platform characteristics were important for platforms in adding value to their consumers and producers. The ability to scale will lead to more data being collected, driving a stronger network effect resulting in more activity generating more data.

Exhibit 11: Importance of Data, Network, and User Activit



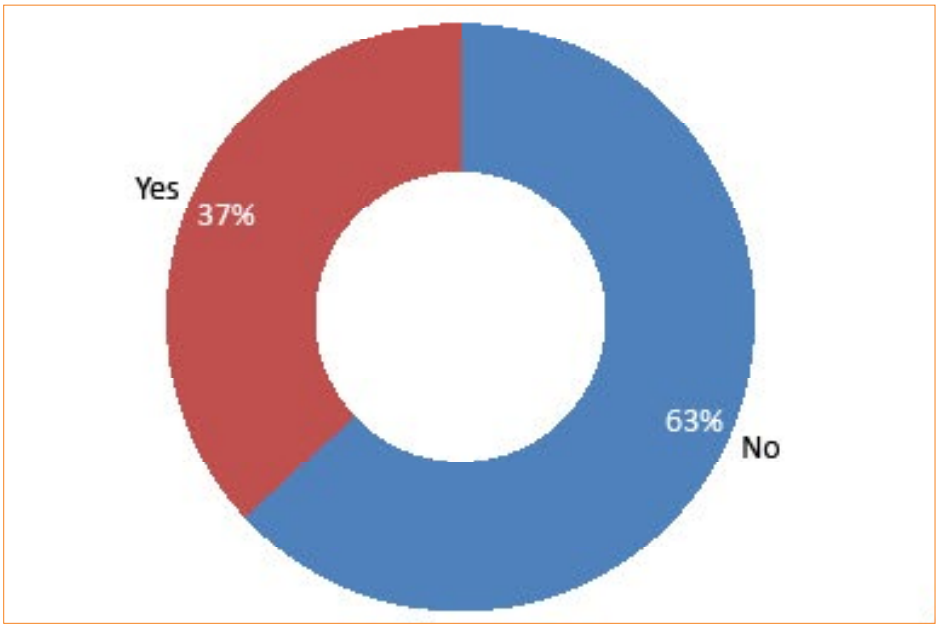
Data is being collected by all the digital platforms. The vast majority of responders indicated a network effect is essential for the success of the platform, but most of the digital platform respondents felt they were not successful at creating a large network effect yet.

Exhibit 12: Revenue Models



Transaction fee income model is the most common revenue source. This revenue model is the most common in financial services too and the easiest for consumers to understand. As costs are easier to understand, consumers can compare prices among competitors. Consumers only pay for successful transactions, resulting in less predictable revenue for the digital platform.

Exhibit 13: Financial Regulation



37% of Platform-based fintech's surveyed indicated the need for unique regulations. The majority of the responders indicated the current regulatory frameworks and regulations cater to their financial activity. The regulations are written to be technologically neutral and financial activity based.

Overall Findings Across South African Fintech Digital Platforms

In interviewing fintechs and incumbent survey participants, we also sought to distil the key benefits and risks they pose to the customer and the financial sector at large. We identified a clear set of benefits such as financial inclusion, personalisation, convenience, and affordability among others, that regulators find beneficial for consumers. However, we also found risks that will need to be addressed including customers being locked into digital platforms, lack of data privacy, lack of consumer education, and conflict of interest to name a few. Table 1 below unpack each of the risks and benefits.

Table 1: Overall Findings common across Digital Platforms

Key Benefits	Key Risks
Increased Access and Financial Inclusion: Users previously excluded from financial services can now access products and services such as interest-bearing accounts, loans, credit, capital investments and insurance. These financial products generate further traditional and non-traditional data enabling the digital platforms to design more efficient products and services. Increasing the network effect, leading to further user activity. **Efficient Personalised Offerings:** Previously, financial service providers offered consumers products from a list or catalogue. Resulting in the same offering to all consumers. Digital platforms make specific products to individual consumers when and how they need them. This granular level of product-specific personalisation can lead to more affordable relevant products. **Lower Cost of Production and Distribution:** An additional user or cost per transaction on a digital platform is close to zero. These cost savings gains can be passed on the consumer resulting in more affordable products. **Convenience and Frictionless Experience:** Digital platforms provide a paperless process, digital onboarding, minimal clicks to transact leading to an efficient customer offering. These efficiencies can save consumers time and travel costs.	**Anti-competitive practices:** The network effect is used to raise the barriers of entry for new digital platforms from entering the market. Technology over time can be copied, but a network effect of users is challenging to replicate by new market participants. Digital platforms limit switching to other platforms by increasing complexity and effort. This mainly is achieved with the consumer's data help by the digital platform. Cross-subsidisation is another way digital platforms raise the barriers to entry for new participants. Digital platforms fund non-profitable products with profitable products. This is done to push out competition or prevent new entries into the market. Consumers are also offered a bundled product offering instead of individual products. A dominant digital platform can do this to harm current competition or prevent new entries into the market **Data breaches, privacy abuses, and data misuse**: Digital platforms collect and hold large quantities of consumer data. A data breach occurs when this confidential consumer information is released to an untrusted environment. Incidents range from concerted attacks by individuals to careless disposal of used computer equipment. Data, Network Effect and Activity loop is used to develop personalised products and services. There is a risk of privacy abuse when the digital platform collects consumer's data to a granular level. This practice is often not fully consented to or fully understood by the consumer. With all the data collected by digital platforms, there is a risk the data is used for untended or unconsented proposed.

Highly Scalable: DDigital platform's business models are highly scalable to meet an increase in demand. This is due to the digital nature of the business model that are built on cloud computing. Capacity on these outsourcing cloud computing platforms can be increased extremely quickly to meet an increase in demand. The digital nature of the platform also requires few physical assets and labour. Physical assets and labour do not scale well.	**Platform Scale:** If digital platforms do not scale by not creating a large network effect, and drive consumer activity insufficient data will be harvested. Limited data will result in less optimal products and services for consumers. This limited scale will result in not delivering on digital platform benefits. **Difficult to Regulate Across Borders:** The digital nature of platforms enables unregulated entities operating in multiple locations. Coupled with limited physical assets and locations make digital platforms difficult to regulate. **Addition of New Products and Services:** The digital nature and process of developing personalised products at scale quickly, pose the risk of digital platforms adding products and services into their offering beyond the scope of their licences. **Black Box Algorithms:** Digital platforms often run algorithms and artificial intelligence to enable recommendation engines, advice, pricing, decisions and personalisation of customer experience. There is a risk the digital platform is not fully in control of algorithms leading to unfair discrimination and decision biases. **Lack of Consumer Education:** The digital platforms often look simple on the consumer end, but the back end can be complex. Consumers might not be fully aware of what they are getting themselves into when participating on a digital platform for a product or service.

IMPLICATIONS

As highlighted throughout the research paper, the Digital platform business model introduces new benefits and risks for regulators to consider. To this end a platforms working group has been established to propose an approach to regulating platforms. The working group will focus on following implications in identifying an appropriate approach to regulations;

1. Customers being locked into Fintech digital platforms

Data is a key input for Fintech digital platforms to develop personalised financial products and services. However this data may also be used to create stickiness and cause customers to be locked into digital platforms. To address the issue of 'stickiness', regulators to further explore regulatory approaches than can be used to curb this from happening.

2. Data breaches, privacy abuses, and data misuse

Owing to the large amount of data gathered by Fintech digital platforms, the possibility for Data breaches, privacy abuses, and data misuse rises. To address risks around data privacy breaches and data misuse regulators to further explore approaches that can be used to hold platforms accountable, building on the Protection of Personal Information Act 4 of 2013 (POPIA).

3. Cross-border Activities

Fintech Platforms are often borderless in their reach, operating beyond the jurisdictions they are licensed for. To address these risks regulators to consider approaches to prevent platforms from serving customers outside of their licensed jurisdiction including:

- establishment of a central database providing verification services for consumers to authenticate digital platforms service providers.
- blocking unlicensed and unregistered services by using website/app blocking technology such as filtering tools, Internet Service Provider (ISP) Filters, Autonomous System Number (ASN) blocking, and Top-Level Domain (TLD) server seizing.

4. Dependency on Outsourcing

- Our research paper revealed that many Fintech digital platforms outsource their support functions to third party service providers, in order to focus on their core functions. This introduces concentration risk and dependency on third-party service providers, particularly around cloud and IT infrastructure services, which may in turn result in issues of interoperability, data portability, and disruption to business continuity should third party service providers face problems. Regulators to further explore approaches to be used to mitigate against these risks.

5. Lack of Consumer Education

Given the complexity of some of Digital platforms products, there is a need to ensure that consumer education plays a central role in demystifying and equipping consumers to make informed choices. Therefore, to address lack of consumer education regulators to explore various guidelines digital platforms should adopt to ensure that customers are informed. Some considerations to include:

- A display of disclaimers and ensure informed consent as it relates to products and services and their underlying decision rules. Specific disclosure mechanisms, including possible warnings, should be developed to provide information commensurate with the complexity and risk of products and services.

6. Disclosures

Due to the complex nature of some products on digital platforms, regulators to develop a more comprehensive disclosure framework to ensure that there is more transparency.

7. Governance and dispute mechanisms

Good governance is necessary for Fintech digital platforms to ensure that consumers and producers are protected, and there is effective issue resolution should a dispute arise between parties. To address these issues regulators to explore regulatory approaches that will lead to effective dispute resolution between parties.

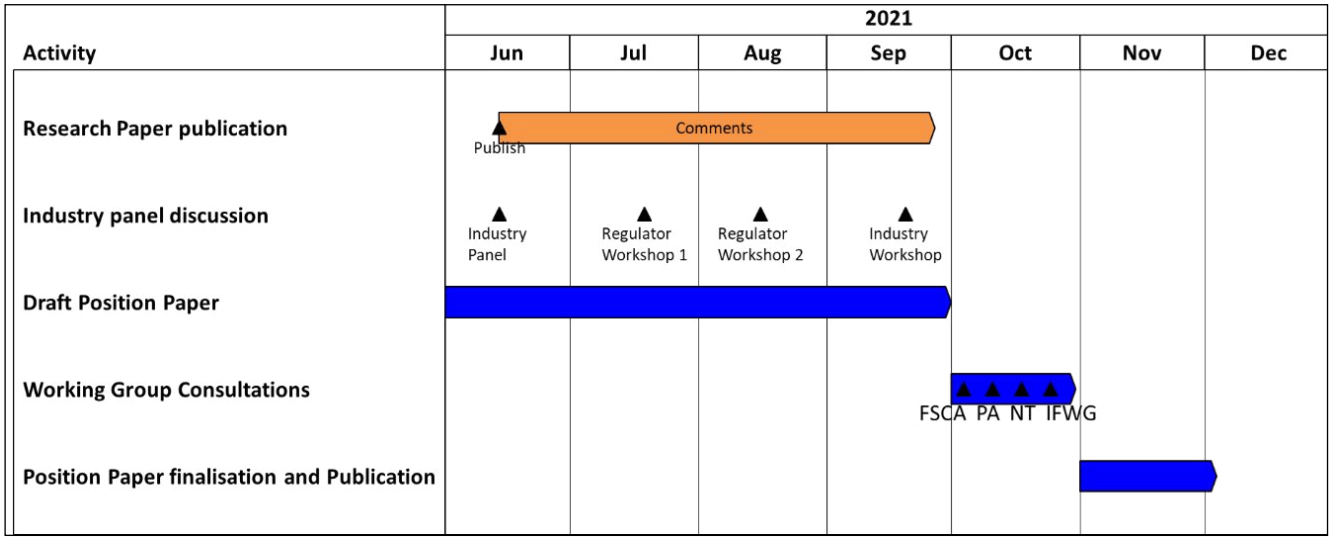
8. Conflict of Interest

Digital platforms participating alongside producers in offering products and services to consumers may create a conflict of interest. This stems from the digital platform having the same priorities as the competing producer but the digital platform having an unfair or undisclosed advantage. To address this risk, Regulators to develop a conflict of interest management policy which may include:

- mechanisms for identifying conflicts;
- measures for avoiding such conflicts;
- measures for disclosing of conflicts of interest;
- internal controls for managing the conflict; and
- consequences for non-compliance with the policy.

NEXT STEPS

To submit comments on the document, please email: Dino.Lazaridis@fsca.co.za



REFERENCES

Alstyne, M. W., Parker, G. G., & Choudary , S. P. (2016). *Pipelines, Platforms, and the New Rules of Strategy*. Retrieved from Harvard Business Review: http://ide.mit.edu/sites/default/files/publications/Pipelines%2C%20Platforms%2C%20and%20the%20New%20Rules%20of%20Strategy.pdf.pdf

Bank of International Settlements Annual Report. (2019). *2019 Annual Report.* Retrieved from Bank of International Settlements: https://www.bis.org/publ/arpdf/ar2019e.pdf

Cambridge Centre for Alternative Finance. (2019). Retrieved from University of Cambridge .

Desmet, D., Dunca,, E., Scanlan, J., & Singer, M. (2015). *Six building blocks for creating a high-perfroming digital enterprise.* Retrieved from McKinsey Digital.

McKinsey & Company. (2017). *Fueling growth through.* Retrieved from McKinsey & Company.

Morvan, L., Hintermann, F., & Vazirani, M. (n.d.). *Five Ways to Win with Digital Platforms.* Retrieved from Accenture.

Peer-to-Peer Lending: Business Model Analysis and the Platform Dilemma. (2018). *International Journal of Finance, Economics and Trade , 33.*

von Engelhardt, D., Wangler, D., & Wischmann, D. (2017, March). Characteristics and success factors. Retrieved from Scientific assistance for AUTONOMICS for Industry 4.0.

Peer-to-Peer Lending: Business Model Analysis and the Platform Dilemma. (2018). International Journal of Finance, Economics and Trade , 33.

von Engelhardt, D., Wangler, D., & Wischmann, D. (2017, March). *Characteristics and success factors.* Retrieved from Scientific assistance for AUTONOMICS for Industry 4.0.

FSCA

Financial Sector
Conduct Authority

WHAT IS THE PURPOSE AND WHY ARE WE PUBLISHING THE DRAFT DIGITAL PLATFORMS RESEARCH PAPER?

The purpose of the Research Paper is to inform stakeholders of the Financial Sector Conduct Authority's (FSCA) research and recommendations towards digital platform business models. Stakeholders are requested to provide input and comments to

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