Central Bank of Kenya

Banking Sector Innovation Survey 2021

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1.0 FOREWORD

It gives me great pleasure to present the results of the Kenyan Banking Sector Innovation Survey 2021, conducted in February 2022. Kenya is the cradle of Fintech since trailblazing mobile financial services in 2007. Over the years, the banking sector has continued to evolve and make use of emerging technologies. The Kenyan banking sector is renowned for its uptake of technology to meet customer expectations for "*anytime anywhere*" financial services, and to drive efficiency gains. The onset of the coronavirus pandemic (COVID-19) in 2020, also resulted in accelerated digitalization by the banking sector.

Against this backdrop, there is need to better understand the trend and impact of digitalization in the banking sector which will, *inter alia*, inform policy decisions moving forward. The aim of the survey, therefore, was to collect current and forward-looking information on Fintech developments to establish the state of innovation in the Kenyan banking sector as of December 31, 2021. The survey serves as a follow-up to the 2018, 2019, and 2020 Innovation Surveys.

The 2021 Innovation Survey findings highlighted three broad themes:

First, the Kenyan banking sector prioritised customer-centricity in innovation. The banking sector has been working on implementing the Kenya Banking Sector Charter (KBSC)[1]. The Charter, which focuses on customer centricity among other key pillars, has prompted institutions to innovate products that prioritise customer needs.

Second, the survey indicated an increased interest in innovation for sustainability and climate awareness, especially in the microfinance banking sector. In recognition of the challenges and opportunities presented by climate change to the global economy, CBK issued a Guidance on Climate-Related Risk Management in October 2021, for the banking sector. As the banking sector continues to deploy technology towards innovation, these efforts, aimed at achieving sustainability in the financial sector, will contribute towards greening the financial system.

Third, collaboration and partnership are key drivers of innovation. The survey results indicated that institutions are increasingly partnering with third parties and working with vendors for product development and deployment. However, with the increased interconnectedness, cyber-risk, and third-party and vendor risks were noted as key areas of concern. Given the enactment of the Data Protection Act in 2019, and the operationalisation of the Office of the Data Protection Commissioner in 2020, there was a growing interest in data privacy and security. It is therefore imperative for the banking sector stakeholders to collaborate and work together to minimize the risks of innovation while maximizing the benefits.

The information collected through the survey will enable CBK to better understand the impact of Fintech on current operating models, including the emergence of new business models and the evolving and emerging risks. The information will also provide CBK with an informed basis for evidence-based public policy decisions on Fintech going forward. Further, the survey findings will keep customers abreast of emerging technologies and enable them to make informed choices when selecting banking services. Finally, the survey findings will inform the banking sector, technology service providers, investors, and the Fintech ecosystem as they craft their innovation strategies and identify opportunities for growth and investment.

Dr. Patrick Njoroge
Governor

[1] *https://www.centralbank.go.ke/wp-content/uploads/2020/03/Kenya-Banking-Sector-Charter-2019.pdf*

2.0 BACKGROUND

2.1 Survey Methodology

- The survey collected data on the state of innovation as of December 31, 2021, from 38 commercial banks, 1 mortgage finance institution and 14 microfinance banks (MFBs).
- The survey was issued in February 2022.
- Questions in the 2021 survey were classified into 6 sections:
  - **Section A** – Institution Innovation Activities.
  - **Section B** – Context for Innovation.
  - **Section C** – COVID-19 and Innovation.
  - **Section D** – Public Support for Innovation.
  - **Section E** – Afro-Asia Fintech Festival Assessment.
  - **Section F** – Impact and Challenges.

2.2 Summary of Findings

i) Customer-centricity

- The Kenyan banking sector has been working on implementing the Kenya Banking Sector Charter. The Charter, which focuses on customer centricity among other key pillars, has prompted institutions to innovate products that consider the customer first. All the institutions noted that ideas for product innovation originate from customer feedback. This is aligned to the Charter.
- Other key factors considered by most institutions before innovating a product are scalability, business strategy, competition, regulation and return on investment.

ii) Innovation Units

- 75 percent of the respondents indicated that they have a dedicated function that spearheads innovation activities compared to 70 percent in the 2020 Innovation Survey.
- Consistent with the Charter, over 75 percent of the institutions noted that the main role of the innovation function is to align products and services being developed by the institution with customer needs.
- On average, innovation function teams constitute 62 percent male and 38 percent female staff.
- 27 percent of financial institutions surveyed indicated that they had set up innovation hubs to promote innovation activities.

iii) Innovation Priorities

- 87 percent of the commercial banks consider payments, clearing and settlement services as the most important operations and service areas to innovate in the short to medium term strategy compared to 57 percent of MFBs.
- Conversely, 86 percent of MFBs consider credit, deposit and capital-raising service as the most important operations and service areas to innovate in the short to medium term strategy compared to 64 percent of commercial banks.
- Payments, clearing, and settlement services was the functional area where most banks introduced an innovative product in the period January 1 to December 31, 2021, with 67 percent of the banks innovating in this area compared to 59 percent in 2020.
- Credit, deposit, and capital-raising services was the functional area where most MFBs introduced an innovative product in the period January 1 to December 31, 2021. 57 percent of MFBs innovated in this area compared to 53 percent in 2020.

- 92 percent of the institutions have adopted or developed a mobile banking solution (app or USSD) to assist in their administration of banking and customer-relationship services.
- 30 percent of the institutions noted that credit business is the least digitized area of their institution's operations. The highlighted areas include loan application, credit appraisal, credit approval, disbursement, and repayment processes.

iv) Innovation Risks

- Cyber-risk (data privacy and data security risk) turned out to be the key risk for institutions in their innovation endeavours, similar to the findings of 2018-2020 Innovation Surveys. 92 percent of banks and 86 percent of MFBs identified it as one of the top three innovation related risks.
- 71 percent of MFBs and 67 percent of banks consider third party and vendor management risks as the key innovation related risks. This correlates with majority of the institutions who responded to using an outsourced or collaboration and partnership approach to development of innovative products.

v) Technological Developments

- APIs, Big Data and Data Analytics, Biometrics Technology, and Cloud-Computing continue to be the major innovations whose developments are considered important by financial institutions. Financial institutions indicated a high likelihood of ramping up their innovation efforts towards developments in APIs in the next four years.

vi) Public Support, Policy and Regulation

- Institutions indicated that the top three forms of public support in 2021, were: direct funding support (58 percent), fiscal incentives (49 percent) and provision of infrastructure and services (43 percent).
- Of the institutions surveyed, 50 percent of MFBs and 13 percent of banks listed data protection as one of the public policies that regulatory agencies need to focus on.
- Based on the issuance of draft CBK (Digital Credit Providers) Regulations, 2022, 36 percent of the banks indicated that the Regulations would greatly impact their lending business strategies, 33 percent indicated the Regulations would have the least impact, and 31 percent viewed the expected impact to be moderate.
- For MFBs, 79 percent indicated that the Regulations would greatly impact their lending business strategies, 14 percent indicated the Regulations would have the least impact, and 7 percent reported the expected impact to be moderate. This indicates that MFBs perceive DCPs as competitors.

vii) Climate Action and Sustainability

- Of the institutions surveyed, 33 percent of commercial banks and 36 percent of microfinance banks indicated that they have innovated or are in the process of innovating a climate change related product.
- Some of the climate change-related solutions were focused on more digital solutions to reduce paper usage and carbon footprint; development of smart energy buildings; green climate fund lending to SMEs and corporates; and provision of digital loan products for clean energy systems and rainwater harvesting.

viii) Afro-Asia Fintech Festival

- Institutions surveyed recommended that the following solutions would transform the banking sector, and should be incorporated in the next Afro-Asia Fintech Festival:

- Data driven credit solutions.
- Big Data, data sharing and data security.
- Use of machine learning and artificial intelligence.
- Islamic banking product innovation.
- A formal platform for collaboration between financial institutions, SMEs, technology providers and government agencies.

2.3 Changes from Innovation Survey 2020

- In the 2020 Innovation Survey that covered the period January 1, 2020 – December 31, 2020, 71 percent of the respondents considered themselves as "better banks", 14 percent as "distributed banks" and 14 percent as "new banks". However, in the 2021 Innovation Survey, 74 percent of the institutions consider themselves as "better banks", 19 percent as "distributed banks" and 8 percent as "new banks" [2].
- In keeping with the focus on customer-centricity, customer feedback surveys were the most popular means of gathering customer products needs and feedback for a consecutive year with 89 percent of the institutions using this means in 2021, compared to 76 percent in 2020.
- 79 percent of banks and 50 percent of MFBs introduced an innovative product during the period January 1 to December 31, 2021.
- There was a decline in MFBs that introduced an innovative product in 2021, compared to 2020, whereby 72 percent of the MFBs introduced a new product. This was a second consecutive year-on-year decline. In 2019, 86 percent of MFBs introduced an innovative product into the market.
- This decline may be attributed to slow provision of services by third-party providers as a result of the unanticipated COVID-19 pandemic in 2020.
- Investment management and custodial services remained the functional area with the least innovation during the period, with 11 percent of the institutions indicating to have introduced an innovative product in this area. Positively, in 2021, 2 percent of MFBs introduced an innovative product in investment management and custodial services compared to none in 2020.

[2] ***Better Bank*** *– An institution seeks to become a 'better bank' by leveraging on enabling financial technologies (Fintech) to digitize and modernize its operations and business practices. Its market knowledge and Fintech investment will significantly improve its banking services and products offering.*

New Bank *– An institution seeks to become a 'new bank' by creating a 'built for digital' banking platform. The institution shall apply advanced Fintech to provide banking services, minimize operational costs, improve customer experience, and market their products through social media.*

Distributed Bank *– An institution seeks to become a 'distributed bank' through collaboration and partnership with Fintech start-ups. The institution seeks to compete for the ownership of the customer relationship by providing niche banking services. Such joint ventures will allow consumers to use multiple financial service providers, through a 'plug and play' digital interface.*

Relegated Bank *– An institution seeks to become a 'relegated bank' by allowing Fintech start-ups and third-parties to provide and manage direct customer relationships through 'frontend' digital platforms. The institution will be relegated to offering commoditized banking functions such as deposit-taking, lending and risk management, to the digital platforms that own and manage the customer relationships.*

- The role of technology and analytics in gathering customer needs and feedback continued to gain pace. This is evidenced by the adoption of social media channels by 74 percent of the institutions as the second most popular means of gathering customer product needs and feedback, after customer feedback surveys. Social media channels replaced exploratory customer interviews, which came second in the 2020 Innovation Survey.
- 8 percent of the institutions indicated that they had spent more than Ksh.200 million in 2021, on secure software development and database related activities. This is an increase from 4 percent in 2020, cementing the continued digitalization from the onset of COVID-19.
- Based on the 2021 Innovation Survey findings, the operating business models of 85 percent of banks and 100 percent of MFBs were impacted by the continuity of the COVID-19 pandemic. Comparatively, 95 percent of the banks and 93 percent of the MFBs were affected in the year 2020, when the pandemic outbreak was reported in the country. This shows that banks had a steady recovery from the pandemic impact from 2020 to 2021, compared to the MFBs.
- Institutions considered Sustainable Development Goal **(SDG) 8**: Decent Work and Economic Growth as the top SDG with the most potential for innovation-related activities tied to digital finance (74 percent).This is closely followed by **SDG 9**: Industry, Innovation and Infrastructure (62 percent) and **SDG 4**: Quality Education (47 percent).
- The inclusion of SDG 4, which was in previous surveys not among the top 3 SDGs with potential for innovation, has been impacted by increased innovation on education-related services to provide virtual learning experiences for students.
- Comparatively, in 2020, the top 3 SDGs with the most potential for innovation-related activities tied to digitalization of finance were **SDG 1**: End poverty in all its form everywhere (92 percent), **SDG 8**: Decent Work and Economic Growth (74 percent) and **SDG 9**: Industry, Innovation and Infrastructure (51 percent).

3.0 SURVEY FINDINGS

3.1 Institutions Innovation Activities

3.1.1 Institution's Business Strategy towards Financial Innovation

- According to their business strategies, 74 percent of the institutions consider themselves as a "better bank", 19 percent as a "distributed bank" and 8 percent as a "new bank".
- The number of institutions that consider themselves a "better bank" increased to 74 percent in 2021, from 72 percent and 71 percent in 2020, and 2019, respectively.
- In the 2020 Innovation Survey that covered the period January 1 – December 31, 2020, 15 percent of the respondents considered themselves as "distributed banks". This number increased to 19 percent in the 2021 Innovation Survey. However, institutions that consider themselves as a "new bank" decreased from 13 percent in the 2020 Innovation Survey to 8 percent in the 2021 Innovation Survey.
- 69 percent of the commercial banks consider themselves as a "better bank", 26 percent as a "distributed bank" and 5 percent as a "new bank". Comparatively, 86 percent of MFBs consider themselves as a "better bank", 14 percent as a "new bank" and none as a "distributed", "relegated" or "disintermediated" bank.

Figure 1: Institutions' Business Strategy on Financial Innovation

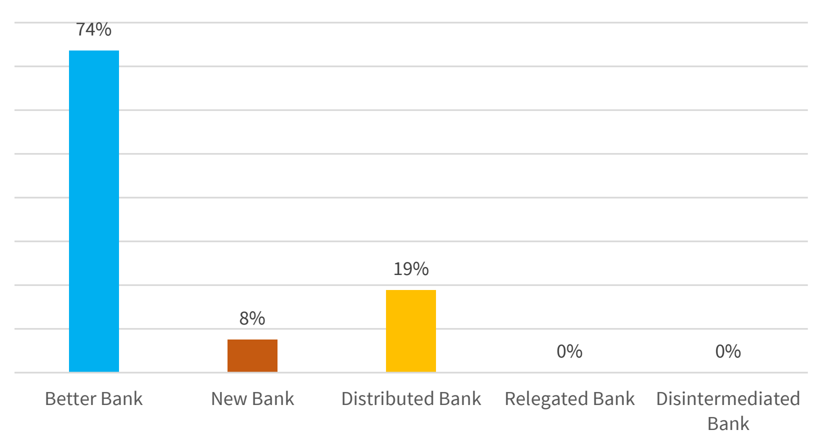


Figure 2: Business Strategy Comparison between 2020 and 2021 Innovation Surveys

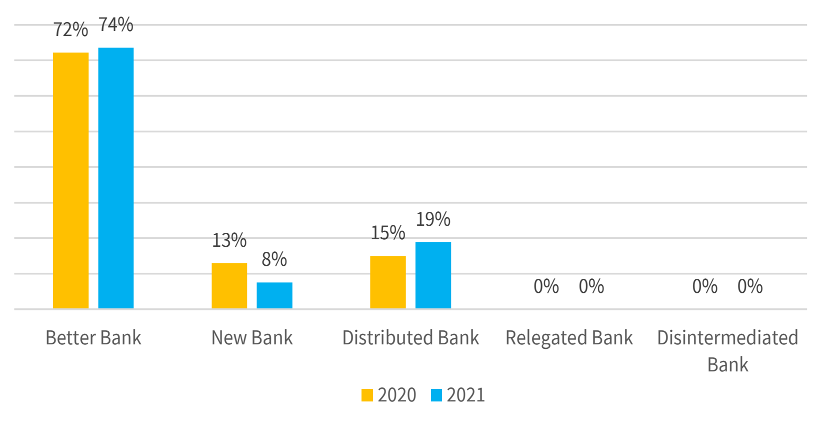


Figure 3: Banks' Business Strategy on Financial Innovation

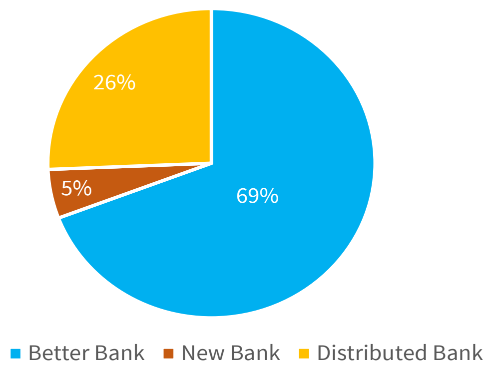


Figure 5: Institutions with a Dedicated Innovation Function

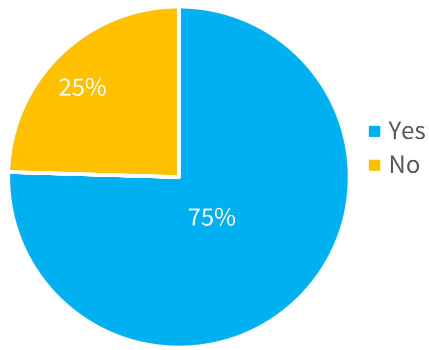
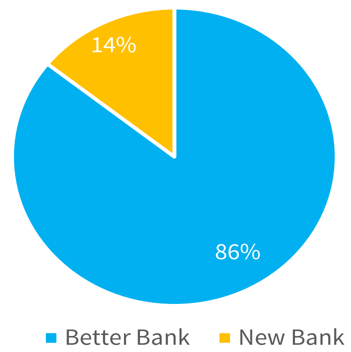


Figure 4: MFBs' Business Strategy on Financial Innovation



- 75 percent of the respondents indicated that they have a dedicated function that spearheads innovation activities compared to 70 percent in the 2020 Innovation Survey. This constituted 82 percent of the commercial banks and 57 percent of the MFBs, who indicated that they have a dedicated function that spearheads innovation activities.
- Over 75 percent of the institutions noted that the main role of the innovation function is to align products and services being developed by the institution with customer needs. Further, majority of the institutions indicated that the innovation function is a multifunctional unit with personnel drawn from other departments mainly Marketing, Sales, Customer Service, Operations, Finance, Strategy, and ICT departments.
- On average, innovation function teams constitute 62 percent male and 38 percent female members
- Limited financial resources and a strategy where existing business functions are assigned the role of spearheading innovation activities were cited as the main reasons why some institutions have not established a dedicated innovation function.
- All the institutions noted that ideas for product innovation originated from customer feedback. This is aligned to the Kenya Banking Sector Charter (KBSC). The Charter, which focuses on customer centricity among other key pillars, has prompted institutions to innovate products that consider the customer first.

- Other key factors considered by most institutions before innovating a product were:
    - Scalability.
    - Big Data, data sharing and data security.
    - Business strategy.
    - Product risk assessment.
    - Competition.
    - Regulation.
    - Return on investment.
- Several institutions have established an innovation framework that guides the decision-making process of innovating a product and a committee that reviews innovative product proposals before seeking Board approval.
- 17 percent of the institutions develop their products in-house, 13 percent through partnerships and collaboration with other entities, 4 percent by outsourcing development, while 66 percent use two or more of those approaches.
- 77 percent of commercial banks combined two or more of the highlighted approaches when developing products. Only 8 percent responded to using an in-house development approach. This underscores the role of third parties and collaboration in Fintech innovations.
- Comparatively, 43 percent of MFBs responded to using an in-house development approach while 36 percent combine two of either in-house, outsourced or partnerships and collaboration approaches to develop innovative products.

Figure 6: Institutions' Approach towards Development of Innovative Products

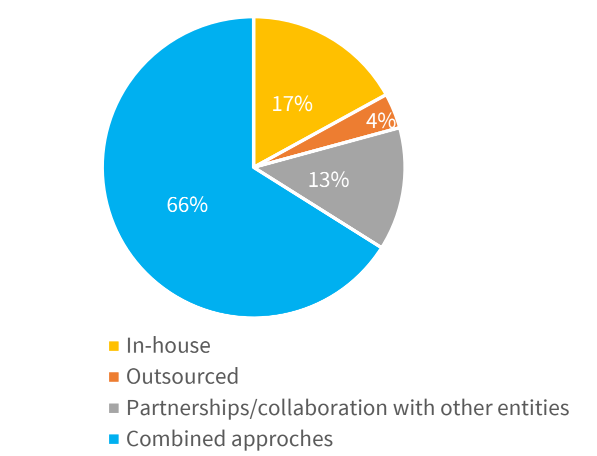


Figure 7: Banks' Approach towards Development of Innovative Products

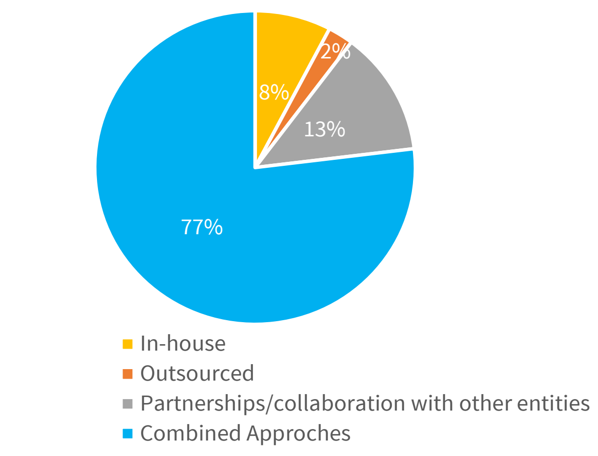
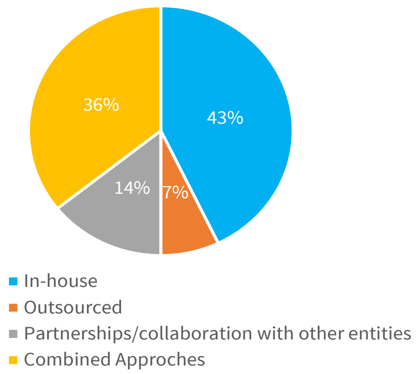


Figure 8: MFBs' Approach towards Development of Innovative Products



- All institutions noted a positive impact of the Kenya Banking Sector Charter (KBSC) on their business strategy focus on innovation, similar to the 2020 Innovation Survey. 99 percent of the institutions observed that the Charter has embedded customer centricity in product development while guiding them to adopt a customer-first philosophy in their approach towards innovation.

3.1.2 Product Innovation

- 79 percent of banks and 50 percent of MFBs introduced an innovative product during the period January 1 to December 31, 2021. There was a decline in MFBs that introduced an innovative product in 2021, compared to 2020, whereby 72 percent of the MFBs introduced a new product. This was a second consecutive year-on-year decline. In 2019, 86 percent of MFBs introduced an innovative product into the market.

Figure 9: Introduction of Fintech products by Banks

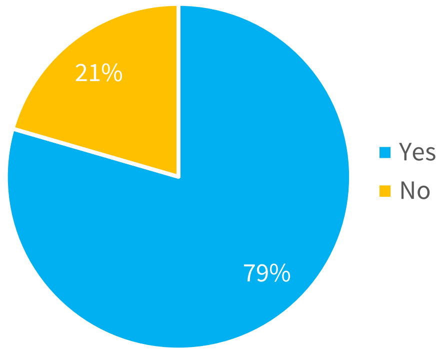
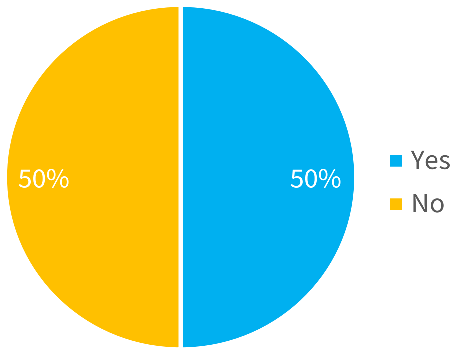


Figure 10: Introduction of Fintech Products by MFBs



- In this Survey, the functional scope of product classification was grouped into 5 areas:
  - Credit, deposit, and capital raising services;
  - Payments, clearing and settlement services;
  - Investment management and custodial services;
  - Incidental business activities; and
  - Market support services.
- Payments, clearing, and settlement services was the functional area where most banks

introduced an innovative product in the period January 1 to December 31, 2021, with 67 percent of the banks innovating in this area compared to 59 percent in 2020.

- Credit, deposit, and capital-raising services was the functional area where most MFBs introduced an innovative product in the period January 1 to December 31, 2021. 57 percent of MFBs innovated in this area compared to 53 percent in the 2020.
- Investment management and custodial services remained the functional area with the least innovation during the period, with 11 percent of the institutions indicating to have introduced an innovative product in this area. Positively, in 2021, 2 percent of MFBs introduced an innovative product in investment management and custodial services compared to none in 2020.
- 87 percent of the commercial banks considered payments, clearing and settlement services as the most important operations and service

Figure 11: Classification of Fintech Products Introduced by Banks

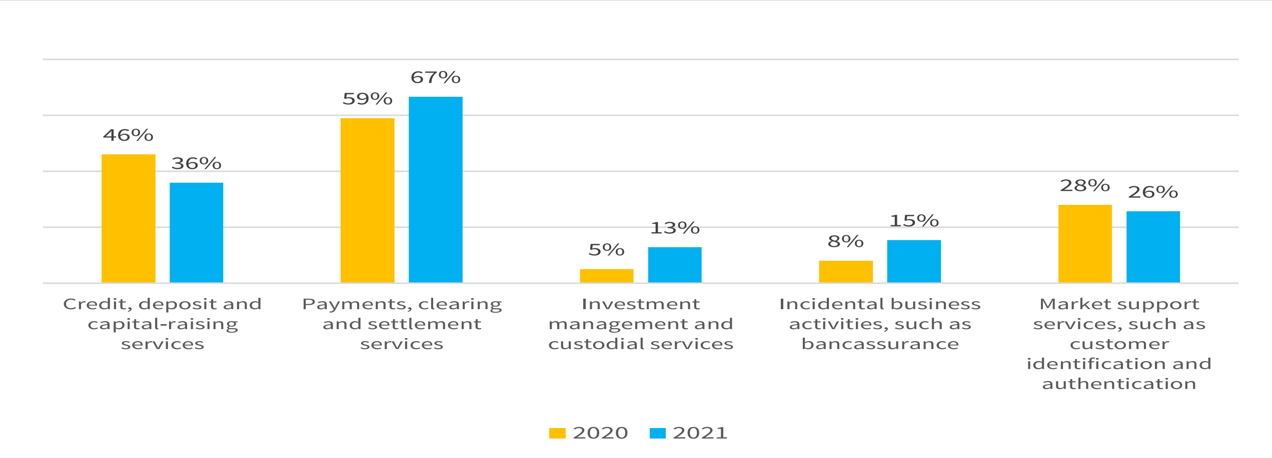
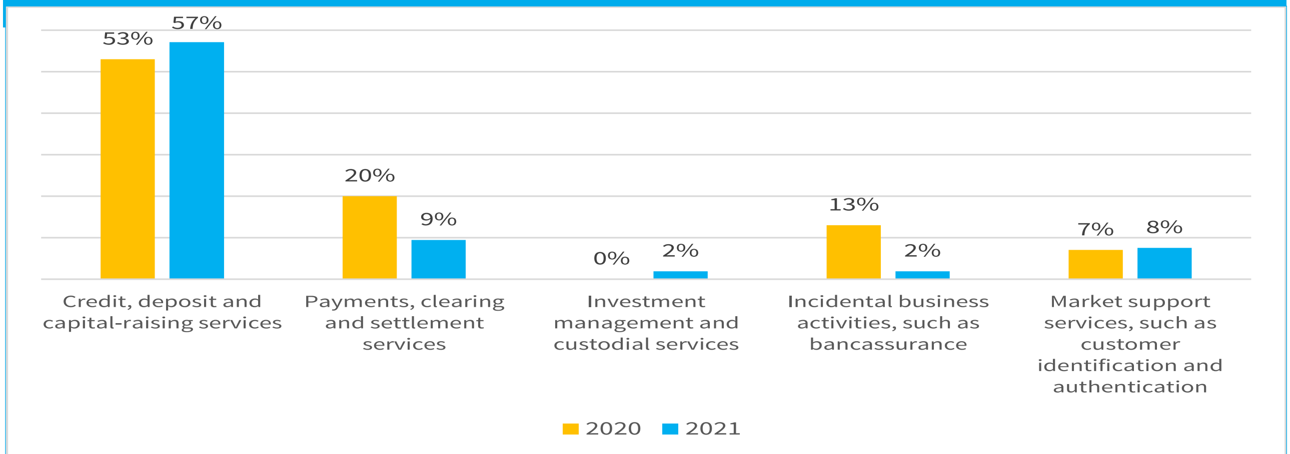


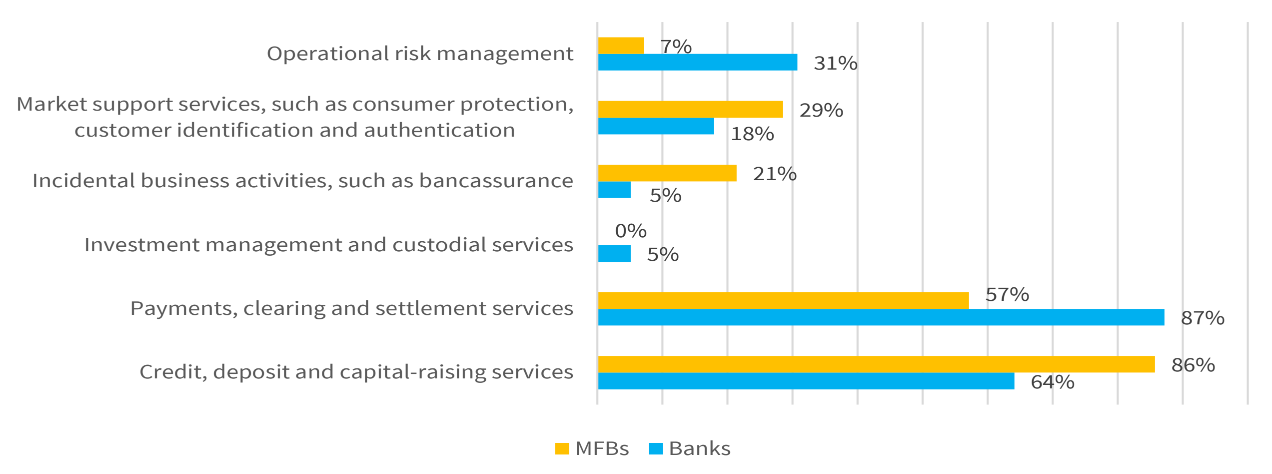
Figure 12: Classification of Fintech Products Introduced by MFBs



areas to innovate in the short to medium term strategy compared to 57 percent of MFBs.

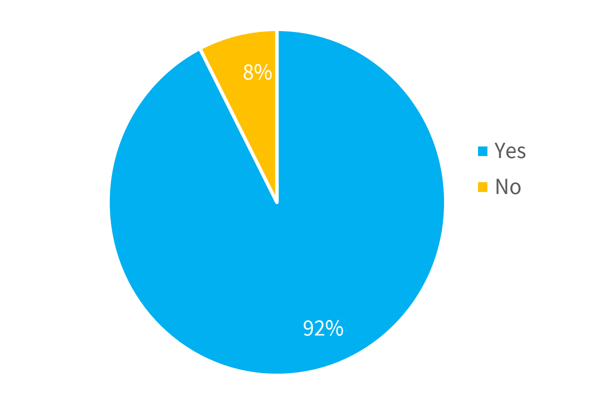
- Conversely, 86 percent of MFBs considered credit, deposit and capital-raising service as the most important operations and service areas to innovate in the short to medium term strategy compared to 64 percent of commercial banks.
- 5 percent of the commercial banks considered investment management and custodial services as the most important operations and service areas to innovate. Comparatively, none of the MFBs considered investment management and custodial services as an important functional area to innovate.

Figure 13: Functional Areas Considered Most Important to Innovate



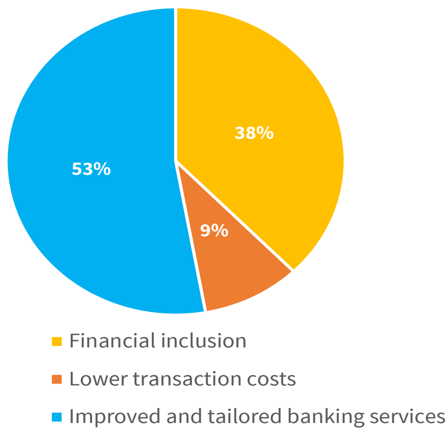
- 92 percent of the institutions have adopted or developed a mobile banking solution (app or USSD) to assist in their administration of banking and customer-relationship services.
- Only four (4) institutions (2 banks and 2 MFBs) have not adopted or developed a mobile banking solution (app or USSD).

Figure 14: Institutions Providing a Mobile Banking Solution to Customers



- Payment services were the most common functionality of the mobile banking solution with 74 percent of the institutions indicating that payment services were offered within their mobile solution.
- Other common services offered by majority of the institutions' mobile banking solution are:
    - Funds transfer.
    - Account opening.
    - Balance inquiry and generating account mini-statements
    - Card management.
    - Transfer from/to mobile wallet.
    - Mobile credit products.
- Notably, only one institution used its mobile banking solution for real-time chat banking.
- 30 percent of the institutions noted that credit business is the least digitized area of their institution's operations. The highlighted credit processes include loan application, credit appraisal, credit approval, disbursement, and repayment processes.
- Other areas of the institutions that were least digitized include:
    - Customer onboarding and account opening.
    - Branch operations.
    - Back-office operations.
    - Card management.
    - Document management.
    - Insurance.
    - Customer identification and authentication.
    - Operational risk management.
    - Customer service.
    - Trade finance.
- Only one institution indicated that all business functions were equally digitalized in line with the institution's Strategy.
- All the institutions considered financial inclusion, lowering transaction cost, and improved and tailored services as important opportunities to the institution when evaluating the benefits of product innovations to their consumers.
- 53 percent of the institutions ranked "improved and tailored banking services" as the most important opportunities when evaluating the benefits of product innovation to consumers in 2021. This was an increase from 46 percent in the 2020 Innovation Survey.
- 38 percent focused on financial inclusion, while 9 percent sought product innovations that could lower transaction costs for consumers. Notably, none of the MFBs considered lowering transaction costs for consumers as a key benefit of product innovation to consumers.

Figure 15: Institutions' Ranking of Benefits of Product Innovations to Consumers

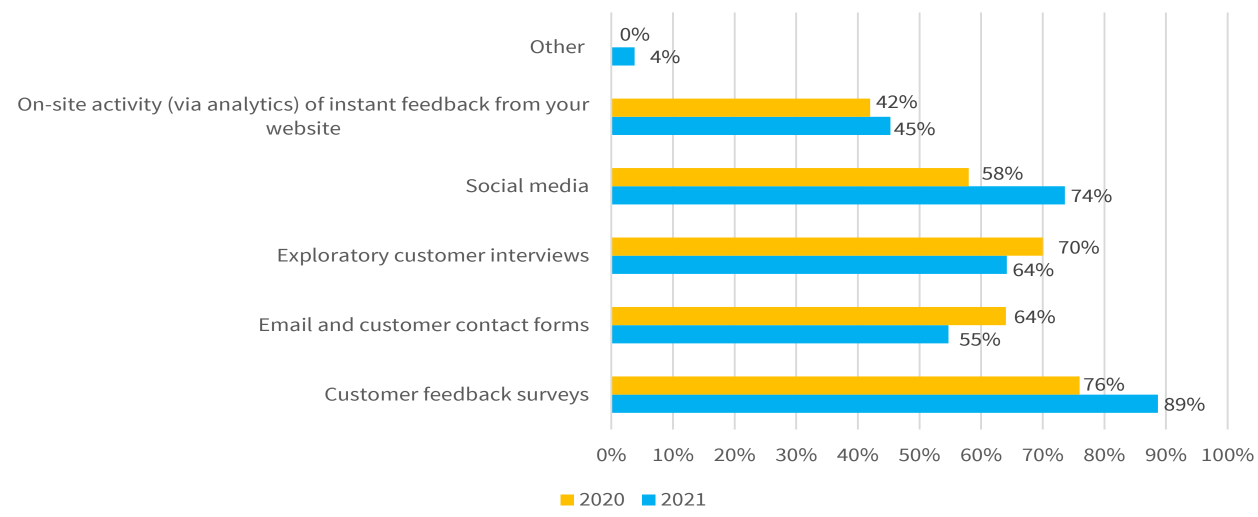


- Institutions highlighted the following as the key items they sought to achieve through their innovation agenda:

- Financial Inclusion.
- Efficiency, simplicity, and turn-around time of transactions.
- Transfer from/to mobile wallet.
- Mobile credit products.
- Lower cost of delivering services and subsequently lower transaction costs.
- Accessibility to banks products.
- Enhanced customer experience.
- Responding to customers' changing needs and preferences.
- Operational and security risks.
- Maintaining a competitive advantage.
- Reducing branch transactions.
- Scaling to new market segments and geographies.

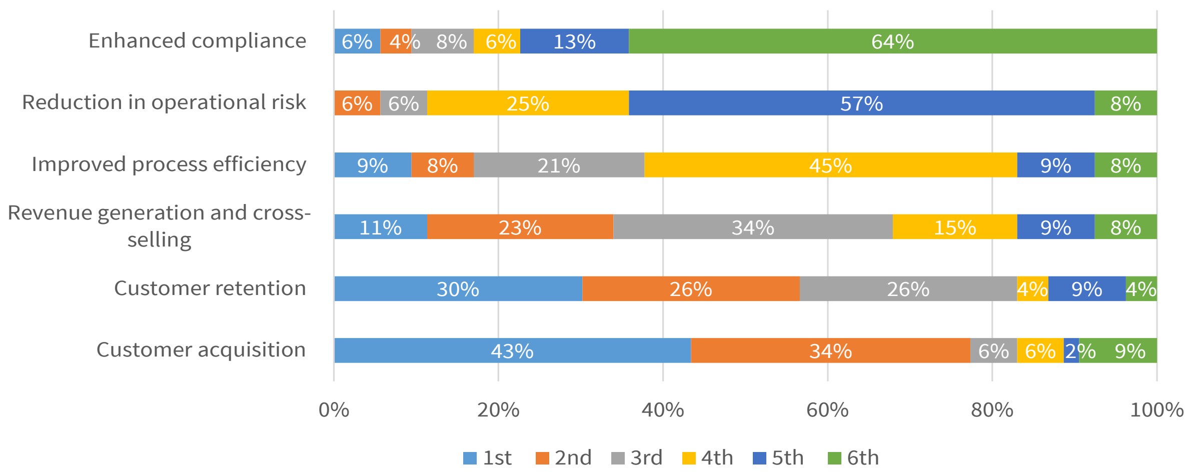
- All the institutions used multiple channels concurrently to collect relevant customer needs and feedback, as well as offer prompt responses and guidance to solving customer complaints concerning innovative products.
- Customer feedback surveys were the most popular means of gathering customer products needs and feedback for a consecutive year with 89 percent of the institutions using this means in 2021, compared to 76 percent in 2020.
- The role of technology and analytics in gathering customer needs and feedback continued to gain pace. This was evidenced by the adoption of social media channels by 74 percent of the institutions as the second most popular means of gathering customer product needs and feedback. This replaced exploratory customer interviews, which came second in the 2020 Innovation Survey.
- Additionally, the use of instant feedback from the institution's website as a means of gathering customer needs and feedback also increased in popularity from 42 percent in 2020, to 45 percent in 2021.

Figure 16: Institutions' Means of Gathering and Addressing Customer Needs and Feedback



- 43 percent of the institutions highlighted customer acquisition as the most important benefit they considered when evaluating the benefits of product innovations to the institution. This was followed by customer retention at 30 percent.
- Conversely, 67 percent of the institutions noted enhanced compliance as the least important benefit of product innovation to the institution. Enhanced compliance innovation includes regulatory technology (RegTech) innovations that have improved the institutions' compliance processes by enabling automated regulatory reporting.
- None of the institutions considered reduction in operational risk as the most important benefits of product innovation to their institution.

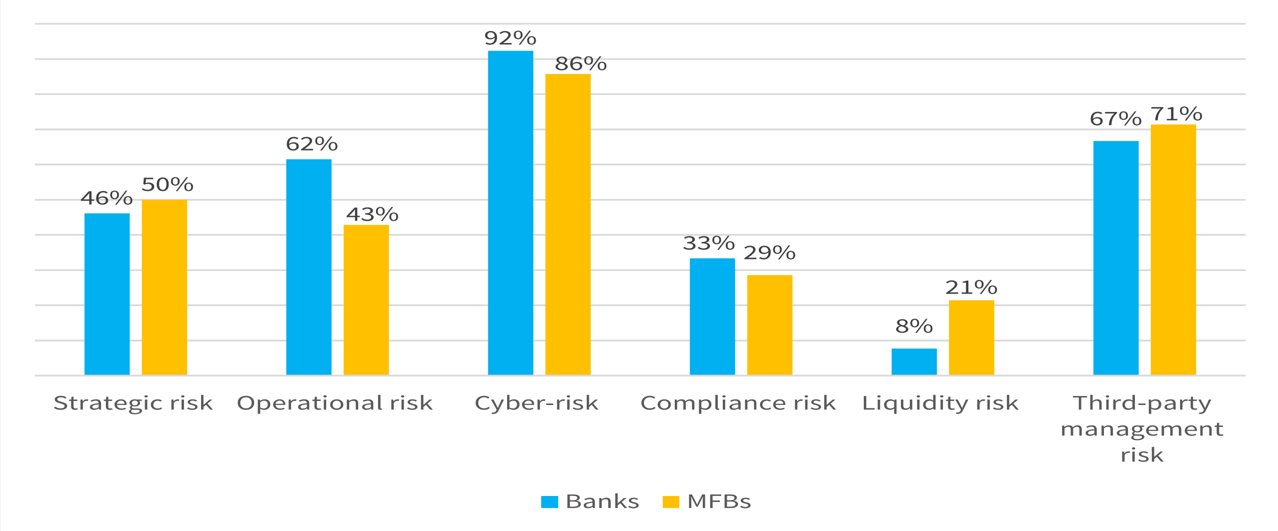
Figure 17: Institutions' Ranking of Benefits of Product Innovation to the Institution



3.1.3 Innovation Related Risks

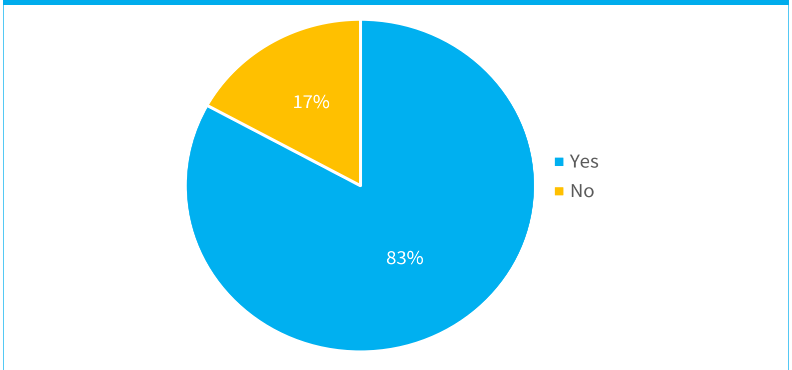
- Cyber-risk (data privacy and data security risk) turned out to be the key risk for institutions in their innovation endeavours, similar to the findings of the survey for 2020. 92 percent of banks and 86 percent of MFBs identified it as one of the top three innovation related risks.
- 71 percent of MFBs and 67 percent of banks considered third-party and vendor management risks as one of the top three innovation related risks. This correlates with majority of the institutions who responded to using an outsourced or collaboration and partnership approach to development of innovative products.
- Consistent with the 2020 Innovation Survey, liquidity risk remained the least considered innovation related risk for both banks and MFBs in 2021.

Figure 18: Innovation Related Risks



- 83 percent of the respondents expressed that they dealt with negative externalities caused by their products to their consumers compared to 80 percent in the 2020 Innovation Survey. The institutions noted system downtime, fraud, and low product literacy by the customers as the main causes of these negative externalities.
- As part of their endeavour to provide a good customer experience, 80 percent of the respondents highlighted the existence of clear customer feedback mechanisms, including prompt resolution of customer complaints.
- Institutions that did not experience any negative externalities credited this to a well-structured end-to-end product development process, ensuring customer needs are addressed, robust quality assurance and risk mitigation, and a defined customer onboarding processes that supports customers in accessing and utilizing the products.

Figure 19: : Institutions' Experience of Negative Externalities Caused by their Innovative Product(s)

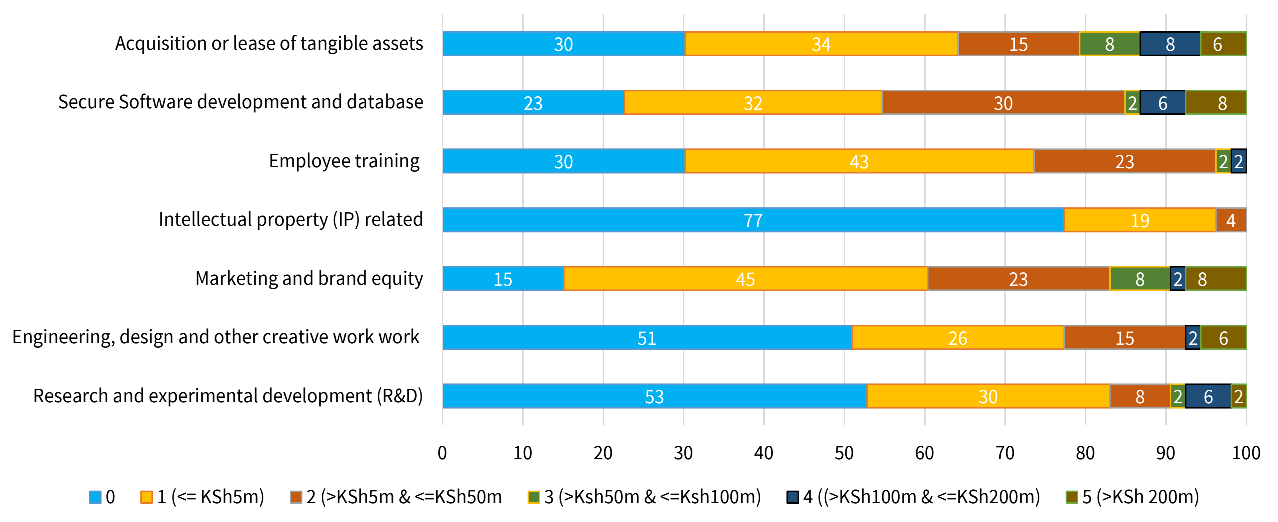


3.2 Context for Innovation

3.2.1 Innovation and Management Expenditure

- Efficiency in the use of emerging technologies to deliver services led to an increase in the financial investments towards innovation.
- From the financial institutions that responded to the survey, 8 percent indicated that they had spent more than Ksh.200 million in 2021, on secure software development and database related activities. This is an increase from 4 percent in 2020, cementing the continued digitalization from the onset of COVID-19.
- It is critical for institutions to carry out continuous training throughout the product development and innovation process. However, 30 percent of the financial institutions indicated that they did not incur any costs on employee training in 2021.
- Substantive efforts are required to be channelled towards research and development when it comes to product innovation. However, 83 percent of financial institutions indicated that they have spent less than Ksh.5 million in this area, with 53 percent not incurring any cost towards this at all.
- 77 percent of the institutions did not channel funds towards activities related to Intellectual Property (IP).
- **Figure 20** below depicts the expenditure on innovation activities by financial institutions.

Figure 20: Innovation and Management Expenditure



- Before undertaking innovation activities, financial institutions need to consider both internal and external factors that may affect their efforts. 95 percent of banks and 79 percent of MFBs indicated that changing customer behaviour had the highest likelihood of affecting their ability and willingness to innovate going forward.
- A substantial number of MFBs (79 percent) also indicated that change of competitive

environment and new technologies had a high likelihood of driving their willingness to innovate.

- Growing data and privacy risks and increasing regulatory and compliance requirements had the lowest likelihood of impacting innovation ability and willingness for both banks and MFBs.
- **Figures 21** and **22** below depict the proportion of factors that influence institutions' ability to innovate and willingness to do so.

Figure 21: Factors Impacting the Ability and Willingness of Banks to Innovate

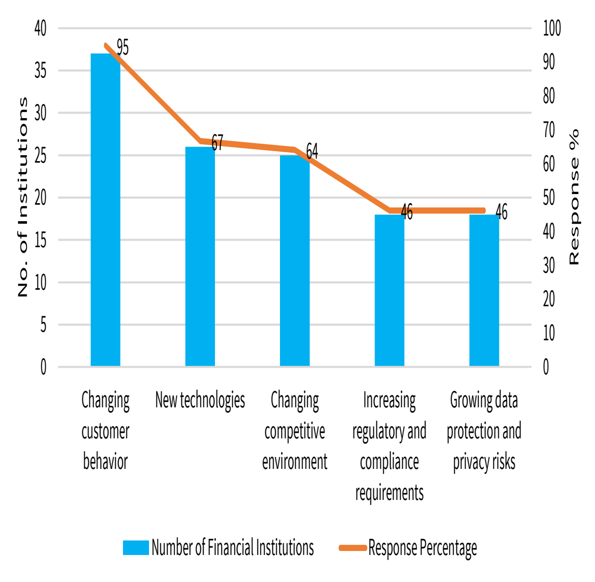
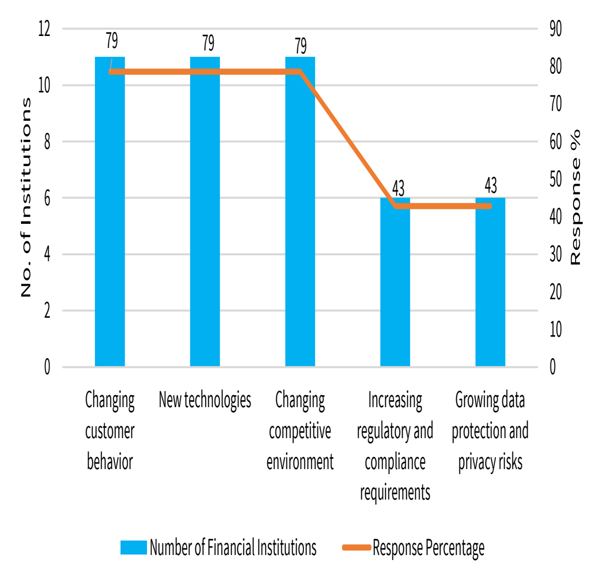


Figure 22: Factors Impacting the Ability and Willingness of MFBs to Innovate

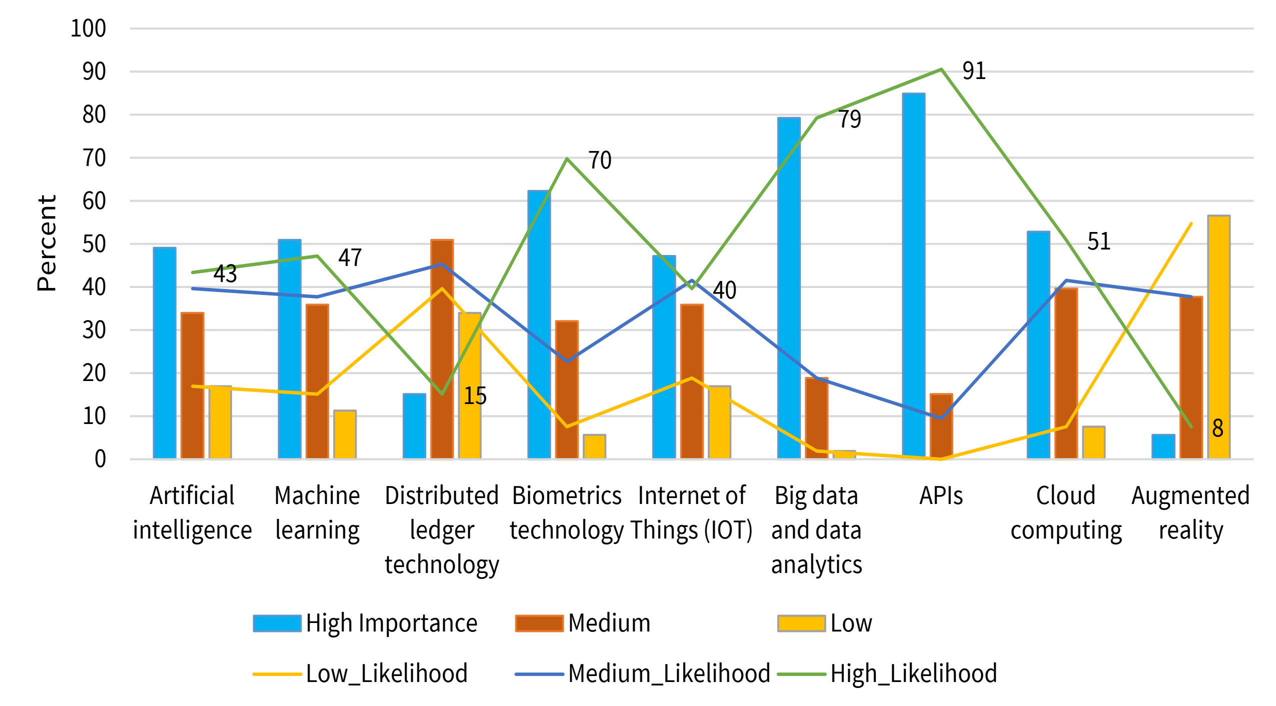


3.2.2 Importance of Developments and Likelihood of Institution Undertaking Innovation Activities

- Technology has proven itself as an essential element in the financial sector. FIs use technology to support their business processes, reduce costs, diversify income streams, and improve customer experience.
- Application Programming Interfaces (APIs), Big Data and Data Analytics, Biometrics Technology, and Cloud-Computing continued to be the major innovations whose developments are considered important by financial institutions.
- Financial institutions indicated a high likelihood of ramping up their innovation efforts towards developments in APIs in the next four years.
- Only one institution identified a technological development other than those provided, i.e. e-commerce as a service.

- **Figure 23** below depicts the trends in importance and likelihood of undertaking innovation activities in the sector.

Figure 23: Importance of Developments against Likelihood of Undertaking Activities

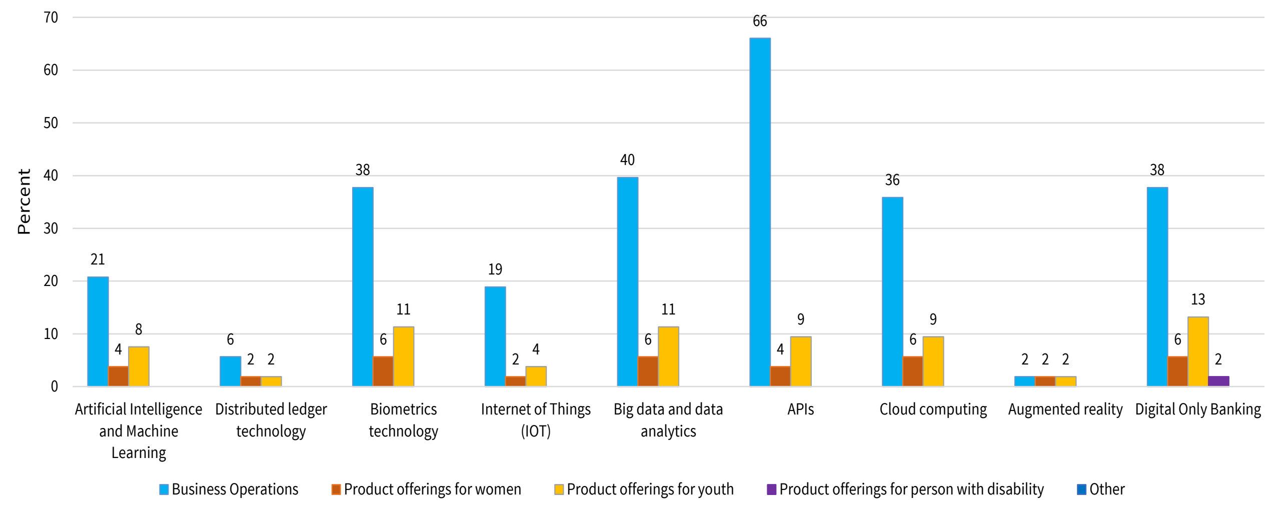


3.2.3 Technological developments that have been adopted by financial institutions in their operations and product offering

- APIs, Digital-only Banking, Biometrics Technology, Cloud Computing, and Big Data and Data Analytics were the most adopted technological developments.

- Only 2 percent of the financial institutions surveyed have adopted technological developments, through the use of digital only banks, in offering products to persons with disability.
- **Figure 24** below depicts technological developments that have been adopted by financial institutions in their operations and product offering.

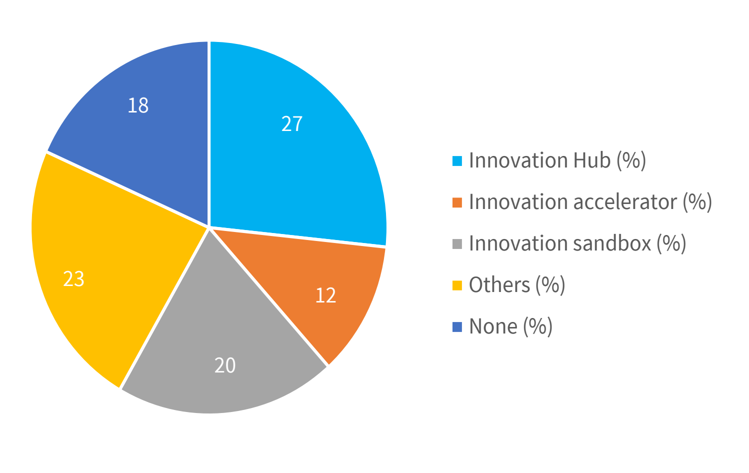
Figure 24: Adoption of Technological Developments in Product Offerings



3.2.4 Initiatives That Have Been Put in Place to Facilitate Innovation Activities

- Based on the 2021 Innovation Survey, 27 percent of financial institutions surveyed indicated that they had set up innovation hubs to promote innovation activities.
- 23 percent of the institutions reported having implemented alternative methods to facilitate innovation activities. These include partnership with targeted Fintech players, creating a product development committee, engaging service providers, among others.
- 18 percent of those who responded to the survey indicated that they have not taken up any initiatives to facilitate innovation.
- The distribution of initiatives adopted by financial institutions is depicted in **Figure 25** below.

Figure 25: Initiatives to Facilitate Innovation Activities



3.3 Coronavirus Pandemic (COVID-19) and Innovation

3.3.1 COVID-19 Impact on Institutions' Operating Business Models

- The safety of financial institutions' staff and their customers became increasingly paramount in the wake of the COVID-19 pandemic. This gave impetus for the acceleration of digitalization witnessed in the banking sector, to minimize the health risk of customers and support stay-at-home protocols.
- Based on the 2021 Innovation Survey findings, the operating business models of 82 percent of banks and 100 percent of MFBs were impacted by the continuity of the COVID-19 pandemic. Comparatively, 95 percent of the banks and 93 percent of the MFBs were affected in the year 2020, when the pandemic outbreak was reported in the country.
- This shows that banks had a steady recovery from the pandemic impact from 2020 to 2021, compared to the MFBs.

Figure 26: Impact of COVID-19 on Banks' Operating Business Models

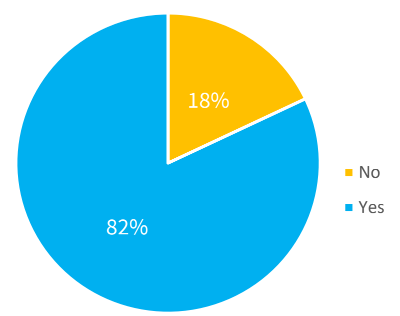
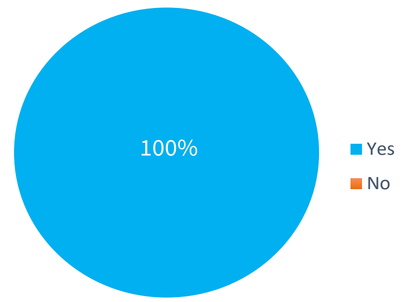


Figure 27: Impact of COVID-19 on MFBs' Operating Business Models



- Institutions had to adopt digital banking business models, to allow customers to transact digitally without branch walk-ins. In addition, the digital banking channels had to be enhanced to ensure a secure remote working environment for the staff, thus promoting agile working.
- Institutions experienced a decline in the uptake of credit facilities, especially during the peak COVID-19 period. This was a result of job losses and salary pay cuts, thus affecting eligibility for the facilities.
- Other impacts highlighted by the institutions were:
  - Enhancement of cyber security strategies.
  - Updating of credit risk/underwriting models.
  - Concessions on mobile transaction fees for bank to customer mobile money transfers.
  - Increased usage of data analytics.
  - Slow pick-up in business as compared to pre-COVID years.
- The reduction in COVID-19 incidences because of vaccination, prior investment in flexible digital and cash-lite technologies, and the adoption of alternate Business Continuity Planning (BCP) solutions are among the reasons why some of the institutions' models were not impacted by the pandemic.

3.3.2 COVID-19 Impact on Pre-existing Innovations

- 59 percent of banks and 36 percent of MFBs continued to experience the COVID-19 impact on pre-existing innovations within the various institutions, compared to 56 percent of banks and 43 percent of MFBs in 2020.
- One of the most notable impacts was the rapid execution of the Digital Transformation journey by most institutions, which led to increased customer penetration, usage, and activity on digital channels, and thus an increase in digital revenue.
- 65 percent of the institutions whose pre-existing innovation was impacted by COVID-19 identified accelerated uptake of their innovative products by customers as the key impact, especially the increased number of transactions through digital channels.

Figure 28: Impact of COVID-19 on Banks' Pre-existing Innovation

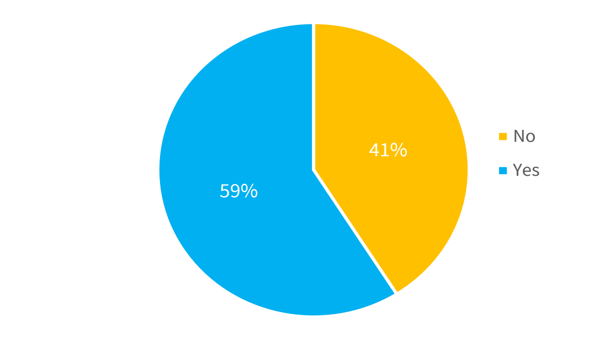
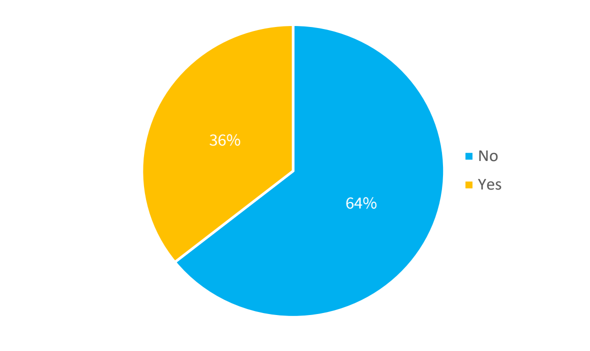


Figure 29: Impact of COVID-19 on MFBs' Pre-existing Innovation



- Institutions also noted a decrease in momentum in most of the innovation projects to concentrate on business-critical survival initiatives.
- Some MFBs recorded a higher default rate in credit facilities from newly innovated products, especially for unsecured loans.
- 53 percent of the institutions whose operating business models were not impacted by COVID-19 did not experience the impact on their pre-existing innovation.
- Other effects highlighted by most institutions were:
  - Re-prioritization of ongoing innovation projects with more focus placed on business resilience during the COVID-19 pandemic.
  - Reduced uptake and utilization of card products.
  - Delayed implementation of some ongoing projects especially due to difficulty in coordinating vendors.
  - Renewed and increased focus on uptime and availability of digital channels.

3.3.3 Products Aimed at Curbing the Effects of COVID-19

- Digital financing innovations were critical in responding to the COVID-19 pandemic, as well as building resilience during and post-pandemic. Fintech solutions enabled business continuity and the rapid scaling of support to vulnerable groups.
- 51 percent of banks and 57 percent of MFBs reported having innovated a product specifically aimed at curbing the effects of COVID-19. This compared to 56 percent of the banks and 29 percent of the MFBs who innovated a specialized product in 2020.

Figure 30: Banks - Innovation of Products to Mitigate against COVID-19

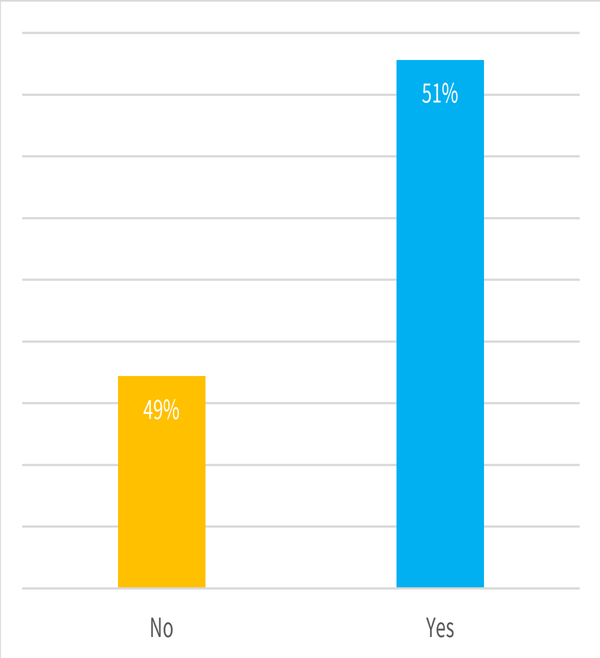
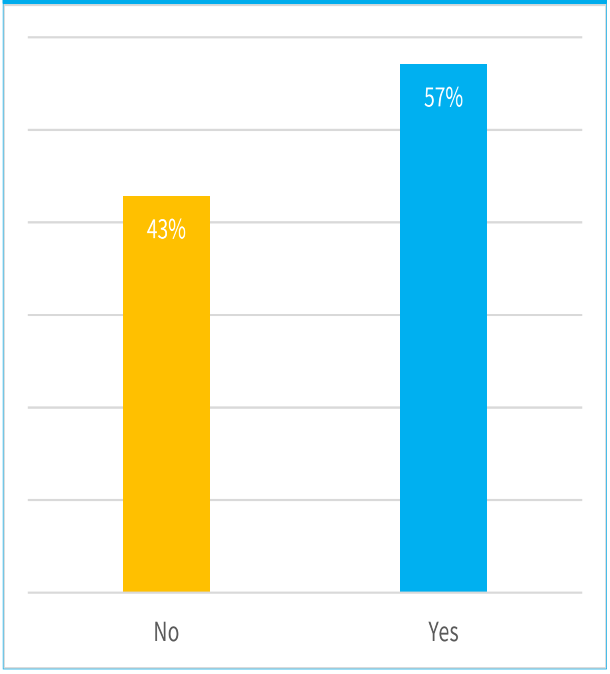


Figure 31: MFBs - Innovation of Products to Mitigate against COVID-19



- 45 percent of the institutions cited continued improvements on the mobile and internet banking channels to ensure 24/7 access, easier interactions, and seamless and secure transaction processing for the customers. This was achieved by harnessing, among others:-
    - Readily available platforms to facilitate bank-customer interactions virtually. Customers can also view product details on the digital platforms and book appointments with Relationship Managers for further assistance.
    - Chat banking platforms.
    - The introduction of mobile lending to enable remote customer borrowing.
    - Digital Account opening, aimed at facilitating customer self-service onboarding into the bank ecosystem. This was especially significant during the lockdowns imposed because of the pandemic.
    - Channel self-service management, such as Card activation, PIN reset, etc.
    - Setting up cash deposit machines as alternative channels for clients' cash deposits

with reduced dependency on branches for the service.

  - Revision of pricing models to promote the use of digital platforms.
  - Introduction of digital-first wealth management solutions, including investment options such as government bills and bonds.

- Due to the increase in cybersecurity fraud incidences, institutions have invested in virtual security, to ensure that platforms are secure for the customers. Authentication solutions, encryption and biometric identification improve the overall security of customer details within the software applications.
- Institutions also noted that remote working for staff called for procurement of dynamic Virtual Private Network access protocols to ensure secure remote access to bank systems.
- The government liaised with some institutions to introduce SME stimulus programs for the counties, as well as provide loans for affected MSMEs to help them recover faster.
- Amidst all these, there were outstanding key lessons to be learnt by institutions as a result of the pandemic. These lessons include:
  - The importance of having real-time data to keep up with dynamic market changes, as well as address current and unforeseen business events.
  - The future of banking is hinged on digitalization, and hence all services and products should be geared towards agility and easy access to banking.
  - The need for proximity to customers to discern their habits and expectations, and thus innovate personalized/tailored products for the various demographic types.
  - The key to growth is going to be pegged on strategic partnerships to both scale offerings in the market, as well as play deeper within a selected industry vertical to maximize the potential value of partnership synergies.
  - Innovation must be viewed as an activity integral to day-to-day business and must anticipate future needs. Innovating amid the pandemic to curb its effects was only going to be successful if the institutions had an innovative culture.
  - Institutions must strengthen their operational resilience and robustness in crisis management preparedness.
  - Remote working is a viable option, and institutions need to invest in proper infrastructure to allow staff agility when working.
  - As digital transformation accelerates, new risks emerge. Persistent uncertainty continues to challenge forecasting of future events, and quality data is important to fill these gaps.
- Kenya will continue to experience accelerated digitalization driven by the effects of the COVID-19 pandemic.

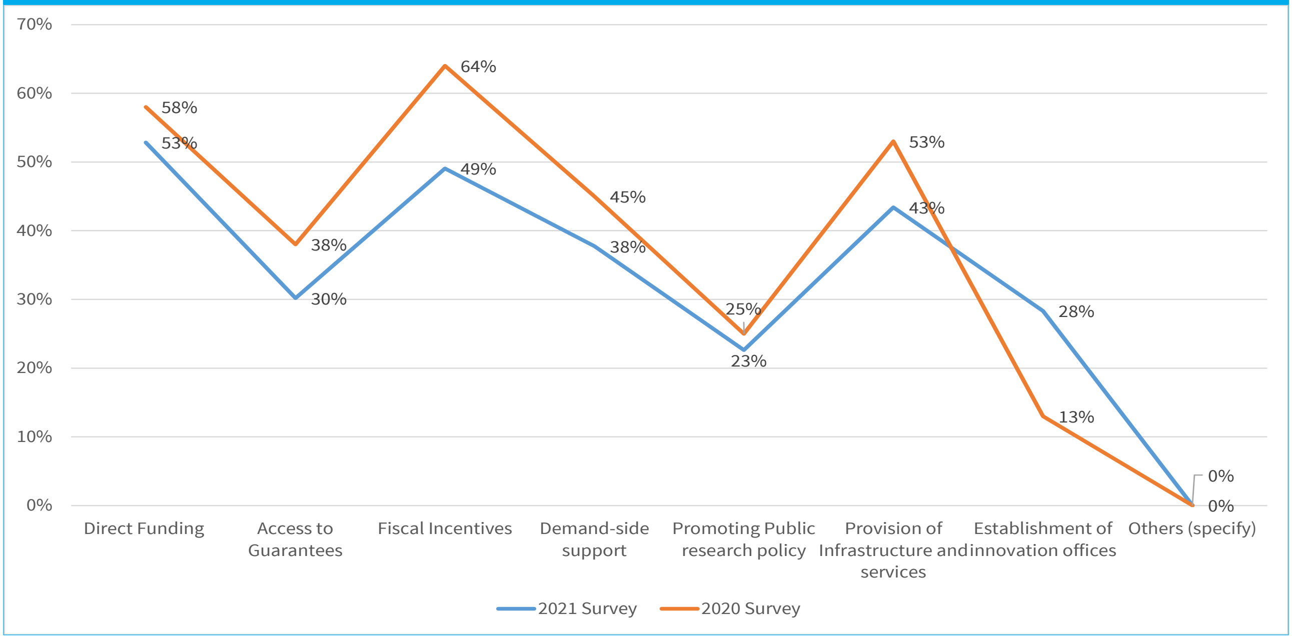
3.4 Public Support for Innovation

3.4.1 Efficacy of Forms of Public Support

- The top three forms of public support based on the 2021 survey's findings included: direct funding support (58 percent), fiscal incentives (49 percent) and provision of infrastructure and services (43 percent).
- Promoting public research policy, including funding joint innovation-related research activities between public universities and other research institutes, and the private sector was the least preferred form of public support. This recorded 23 percent, a decrease from 25 percent in the 2020 survey.

- **Figure 32** below represents the institutions views on forms of public support that are considered most effective in promoting innovation activities within the institutions.

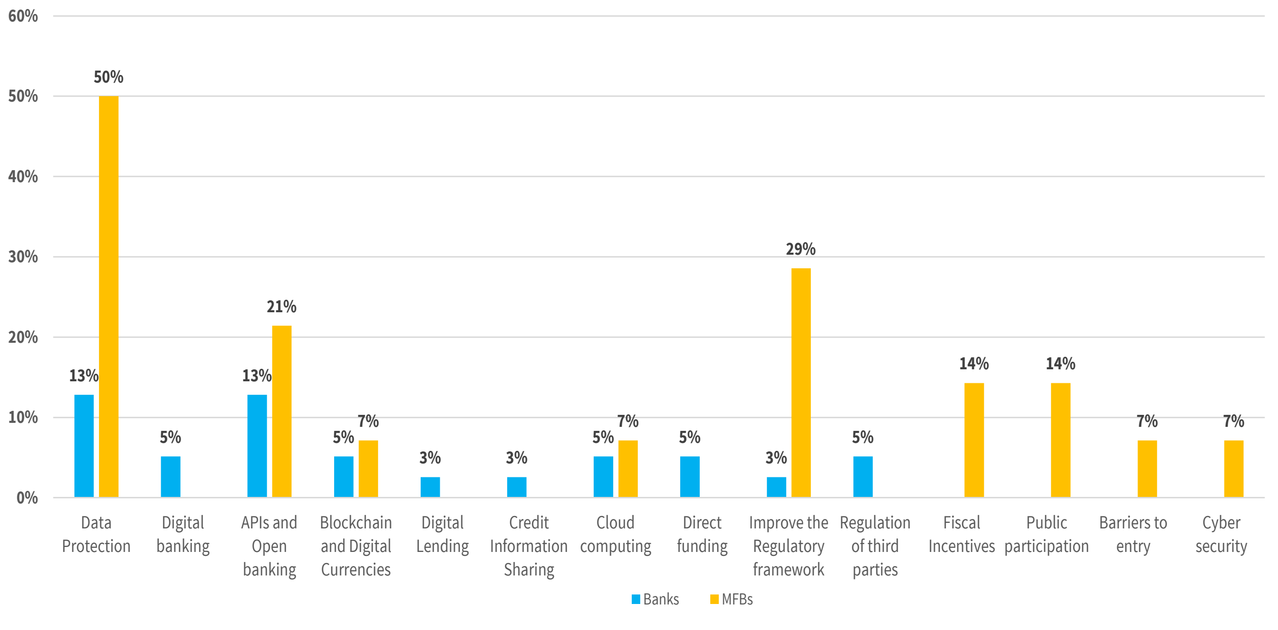
Figure 32: Effective Forms of Public Support



3.4.2 Public Policy Areas

- 50 percent of MFBs and 13 percent of banks listed data protection as one of the public policies that regulatory agencies need to focus on.
- 29 percent of MFBs listed compliance as a key policy area to be put into consideration by regulatory agencies. Conversely, 14 percent of commercial banks prioritized fiscal incentives and public participation as key policy areas for regulatory authorities to consider.
- APIs and open banking were identified by 21 percent of MFBs and 13 percent of commercial banks as a key area for regulatory authorities to prioritise for policy and regulation.

Figure 33: Public Policy Areas



3.4.3 Regulatory Bottlenecks to Innovation

- The institutions surveyed indicated that some of the existing regulatory frameworks governed by CBK are bottlenecks to innovation-related activities within the institution.
- In particular, while institutions are moving towards agile processes for innovative products, the current product approval framework is not streamlined for innovation and agility, resulting in a lengthy and time-consuming approval process.
- Further, products go through several improvement cycles, and for each, they must undergo an approval process before deployment to the market.
- It may therefore be prudent to employ an agile product approval process to match the institutions' agile product development processes.

3.4.4 Impact of Digital Credit Providers Regulations

- Digital lending has revolutionized the traditional modes of lending worldwide, where loans were mainly accessible through the banks. Kenya in particular has seen a drastic rise of digital lenders for over a decade since the emergence of mobile applications and an increase of affordable smartphones. Digital credit in Kenya was principally provided by regulated entities, particularly banks. However, in the last few years, unregulated Digital Credit Providers (DCPs) have also emerged. Thus, the emergence of new digital credit products has created some regulatory concerns, mostly around consumer protection. To address this, CBK was given the legal mandate to regulate and supervise the unregulated DCPs.
- It is in this regard, the survey sought to establish the projected impact of regulation of digital

lenders through the draft CBK (Digital Credit Providers) Regulations, 2021 on institution's lending business strategy.

- The findings indicated that 36 percent of the banks indicated that the Regulations would greatly impact their lending business strategies, 33 percent indicated the Regulations would have the least impact, and 31 percent viewed the expected impact to be moderate.
- For MFBs, 79 percent indicated that the Regulations would greatly impact their lending business strategies, 14 percent indicated the Regulations would have the least impact, and 7 percent reported the expected impact to be moderate. This indicates that MFBs perceive DCPs as competitors.
- In addition to providing a level playing field in the market by ensuring that DCPs adhere to prudent market conduct, institutions surveyed indicated that the Regulations will have many potential benefits including:
    - Provision of a level competitive playground for DCPs and other financial institutions.
    - Increased opportunities for research and innovation of products to serve customer needs.
    - Greater market discipline in financial lending.
    - Consumer protection from exploitative practices such as over pricing and poor recovery practices.
    - Opening up of opportunities to collaborate on product offerings with regulated DCPs.
    - Improved risk management due to access to credit information thus enabling better credit assessment by applicants. This will lead to reduction in credit provisions due to improved credit scoring.
    - Accelerated growth of the digital lending industry.
    - Customer data protection and protection from cybercrime and fraudulent transactions.
    - Promotion of financial inclusion.
- The institutions surveyed also indicated that they may encounter some challenges as a result of the Regulations, including:
    - Increased competition from less established entities, resulting in reduction in market share for commercial banks and microfinance banks, and a need for these institutions to make more effort to tap into the lending market.
    - Lower rate of return due to the short-term nature of the loans.
    - Agility of DCPs in decision-making and adoption of new technology and innovation could cannibalize banking products.
    - Regulation of all players within this market may hinder and slow down innovation.
    - High rate of defaulting due to multi-borrowing leading to CRB listing that may consequently result in no access to credit.

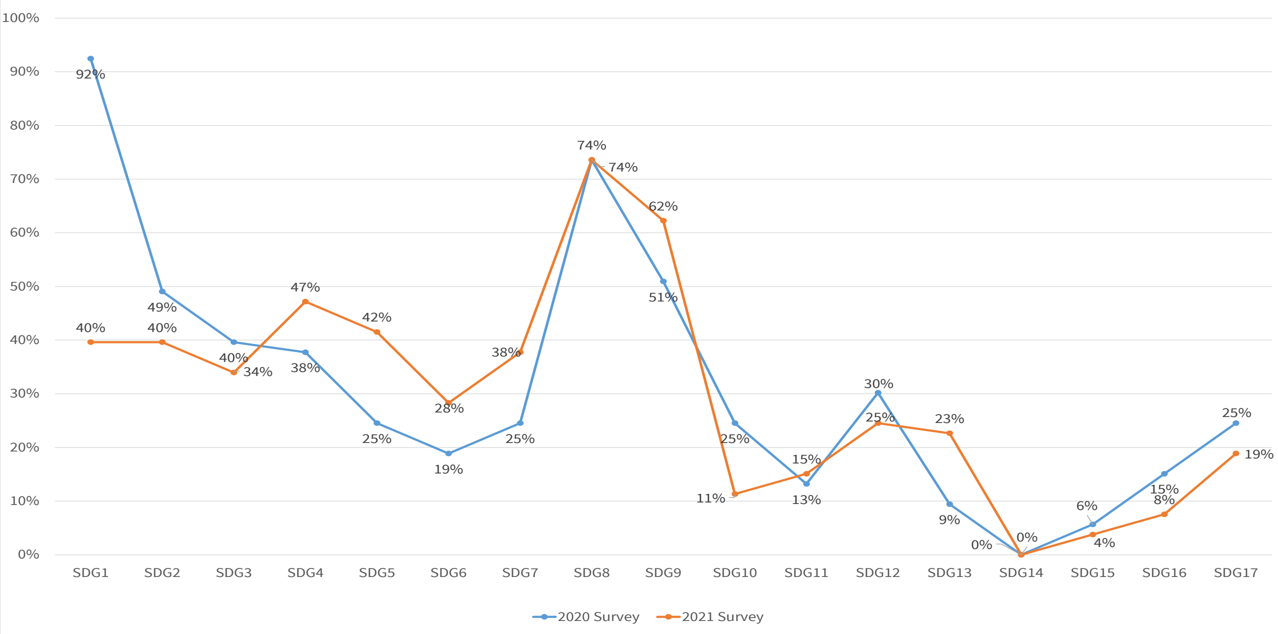
3.4.5 SDGs: Potential for Innovation-Related Activities Tied to Digitalization of Finance

- Institutions considered Sustainable Development Goal (SDG) 8: Decent Work and Economic Growth as the top SDG with the most potential for innovation-related activities tied to digital finance (74 percent) as shown in the chart below. This is closely followed by SDG 9: Industry, Innovation and Infrastructure (62 percent) and SDG 4: Quality Education (47 percent).
- The inclusion of SDG 4, which was in previous surveys not among the top 3 SDGs with potential for innovation, has been impacted

by increased innovation on education-related services to provide virtual learning experiences for students.

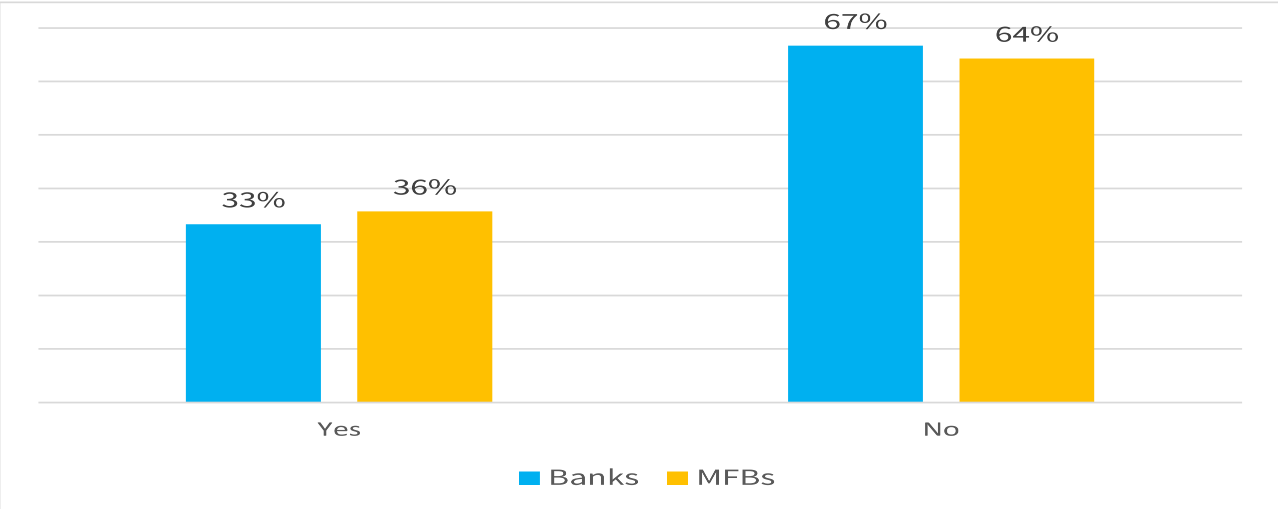
- Comparatively, in 2020, the top 3 SDGs with the most potential for innovation-related activities tied to digitalization of finance were **SDG 1**: End poverty in all its form everywhere (92 percent) **SDG 8**: Decent Work and Economic Growth (74 percent) and **SDG 9**: Industry, Innovation and Infrastructure (51 percent).
- The absence of **SDG 1** among the top SDGs with potential for innovation implies a shift in focus to **SDG 8** as a means of ending poverty.
- In recognition of the challenges and opportunities presented by climate change to the global economy, CBK issued a Guidance on Climate-Related Risk Management in October 2021, for the banking sector.

Figure 34: SDGs: Potential for Innovation-Related Activities tied to Digitalization of Finance



- The Guidance is aimed at sensitizing the banking sector on mitigation of climate-related risks and harnessing of opportunities.
- Of the institutions surveyed, 33 percent of commercial banks and 36 percent of microfinance banks indicated that they have innovated or are in the process of innovating a climate change related product, as shown in the chart below.

Figure 35: Innovation in line with SDG 13 (Climate Action)



- Some of the climate change-related solutions are as highlighted below:
    - Use of less paper and more digital solutions to help reduce paper usage and carbon footprint.
    - Development of smart energy buildings.
    - Provision of digital loan products that allow households to access solar home systems and water tanks for rainwater harvesting.
    - Provision of loan facilities that have incorporated climate risk financial analysis.
    - Financing of clean and renewable energy solutions for cooking and lighting.
    - Increased focus on green climate fund lending to SMEs and corporates.
- The institutions surveyed indicated that digitalization of finance could be leveraged upon to support SDGs in the following ways:
    - Developing products aimed at vulnerable groups in society such as the women and youth.
    - Providing access and continuity of education by allowing payments through digital platforms, thereby supporting **SDG 4**: Quality Education.
- Embracing paperless banking to conserve the environment, thereby supporting **SDG 13**: Climate Action.
- Deepening of finance through digital platforms to support individuals and SMEs growth in line with **SDG 8**: Decent Work and Economic Growth. This would require use of AI and big data analytics to determine underserved areas of the economy to enhance development.
- Financing development of mobile and online prepaid solutions for utilities and infrastructure, which would support development of **SDG 7**: Affordable and Clean Energy and **SDG 9**: Industry, Innovation and Infrastructure. MSMEs would be the greatest beneficiaries as development in this area would expand economic growth and development across a wide populace, thus encouraging financial inclusion.
- Creating better suited financial instruments like green bonds that will be useful to the environment and vulnerable ecosystems, thereby supporting **SDG 13**: Climate Action.
- Digitisation of lending to improve access to credit in the agricultural sector, to facilitate consumer attainment of self-sustaining

initiatives to end hunger and achieve food security in line with **SDG 2**: Zero Hunger.

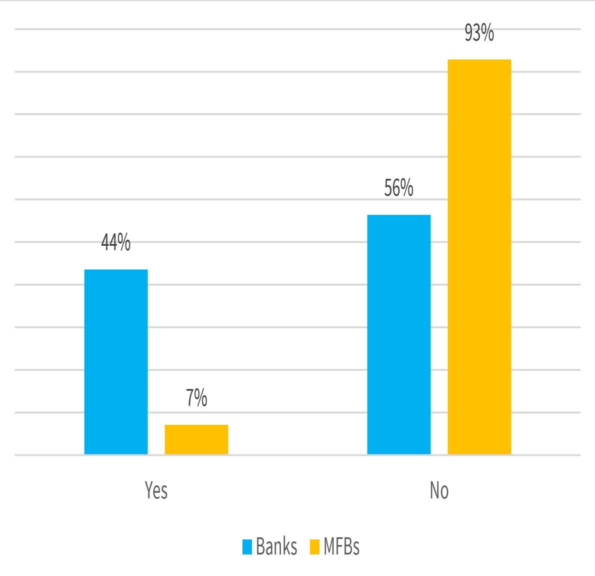
- Provision of convenient, fast, and affordable microloans and working capital to businesses which contributes to poverty alleviation and generation of employment and sustainable economic growth in line with **SDG 1**: No Poverty, and **SDG 8**: Decent Work and Economic Growth.
- Provision of Mortgages to enable acquisition of decent, safe, and resilient settlements in line with **SDG 11**: Sustainable Cities and Communities.

3.5 Afro-Asia Fintech Festival Assessment

3.5.1 Afro-Asia Fintech Festival 2021 Assessment

- As shown in the chart below, of the institutions that were surveyed, 44 percent of banks attended the Afro-Asia Fintech Festival (AAFF) 2021. This was a decrease from 49 percent that was observed in the 2020 Innovation Survey. Only 7 percent of micro-finance institutions attended the event.

Figure 36: AAFF 2021 Attendance by Institutions



- Majority of the institutions that did not attend the event indicated that the event was not communicated in time, while others indicated that they had budgetary constraints and other prior commitments at the time of the event.
- Some of the key value adds of the AAFF 2021, as highlighted by the institutions that attended the event include:
  - Appreciation of real use cases and applications of data and analytics, and advanced areas of machine learning to solve unmet customer needs.
  - Exposure to new and exciting innovations from Asia.
  - Great networking and information sharing event between banks and Fintechs.
  - Understanding of CBK's commitment to growth and development of the banking sector in the digital age.
  - Increased collaboration in building a sustainable financial ecosystem and sharing the expertise and resources among countries.
  - Benchmarking opportunity with global peers.
  - Obtained an overview of what Fintechs are doing, and how their solutions could dovetail with digital banking strategies.
  - Certification on Web 3.0 Knowledge in Fintech services.
- Institutions surveyed recommended that some solutions that would push the banking sector forward and should be incorporated in the next AAFF include:
  - Data driven credit solutions.
  - Digital Know-Your-Customer (KYC) solutions.
  - Digital currencies.
  - Embedded banking.

- Big data, data sharing and data security.
- Use of machine learning and artificial intelligence to solve customer needs.
- Data and consumer protection in the age of digitalization.
- Islamic banking product innovation.
- Contactless payment systems.
- Emerging trends in cyber risk and proposed frameworks for mitigation.
- Blockchain for cross-border transfers.
- A formal platform for collaboration between financial institutions, SMEs, technology providers and government agencies.

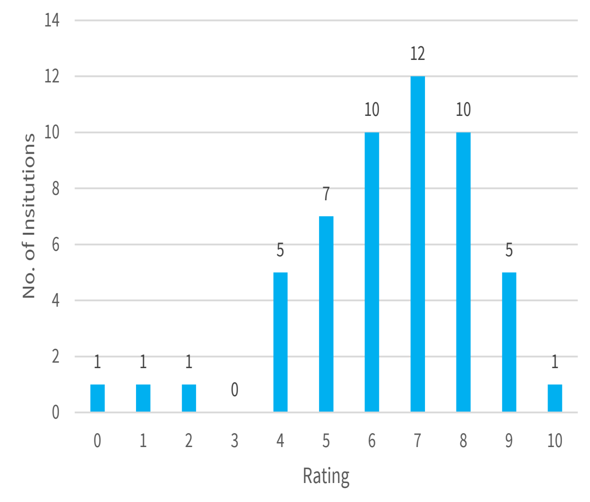
- In addition, the institutions surveyed indicated some key areas of improvement for the AAFF as highlighted below:
    - Early planning and communication to stakeholders.
    - More collaboration with micro-finance banks for AAFF.
    - More events like the AAFF to have better collaboration between all stakeholders.
    - Highlight key local Fintech partnership opportunities especially in Shariah innovation.
    - CBK should follow up on resolutions agreed upon during the event for implementation.
    - Proactive involvement of local banks.
    - Create a platform for financial institutions to collaborate and connect with Fintechs.
    - Hold a physical or hybrid festival to lessen distractions and improve participation.
- Institutions indicated that some of the ways that AAFF can be structured to help them attain their strategic mandates include:
    - Inclusion of micro-finance institutions in AAFF.
    - Showcasing of solutions to problems affecting micro-finance institutions.
    - Partnerships on pilot projects and other new innovative solutions.
    - Thought leadership and sharing of best practices.
    - Focusing on lower-tier banks and Fintechs to provide solutions tailored to their needs.
    - Collaboratively setting up think tanks that draw key industry players with global subject matter experts in the space of innovations leveraging emerging technologies and business models.
    - Organizing smaller forums for same-sized/themed banks to have more in-depth conversations during AAFF.
    - AAFF team to hold periodic forums to discuss and understand emerging trends in technology.

3.6 Impact and Challenges

3.6.1 Success Rate of Innovation Products Developed in 2021

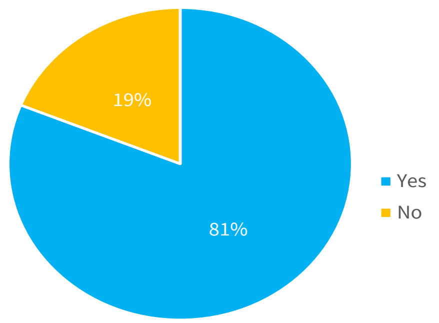
- Majority of institutions had a product success rating of more than 5, with the rating of 1 being least successful and 10 being most successful, as shown below.

Figure 37: Rating of Success of Products Developed in 2021



- Of the innovation products developed in 2021, 81 percent attained their objectives, while 19 percent did not, as depicted in the chart below.

Figure 38: Product Success



3.6.2 Product Innovation Challenges

- Some of the challenges faced by institutions with respect to product innovation include:
  - Third-party risk, given the high dependence on technology solution providers for innovation.
  - Lack of adequate technical expertise to develop digital products in-house, since outsourcing is expensive.
  - Slow product uptake by consumers due to lack of consumer literacy in new technology and due to the increased competition from traditional and non-traditional players with dynamic product offerings.
  - Limited financial resources to invest in market research and upskilling of staff required for innovation.
  - Regulatory bottlenecks such as a lengthy approval process and stringent regulations.

4.0 CONCLUSION

- Kenya's banking sector has continued to leverage technologies for efficiency and resilience. While the COVID-19 pandemic negatively impacted business operations, it is evident that banks are on a steady recovery track compared with MFBs, whose operations continue to be negatively affected.
- Due to its far-reaching potential impact, cyber risk remains a top priority of financial institutions.
- While banks continue to focus on payments, clearing and settlement services, emerging areas of interest for MFBs are financial solutions for climate action and credit, deposit, and capital-raising services. MFBs are likely to play a key role in greening the financial system. In this regard, CBK's Guidance on Climate-related Risk Management, issued in 2021, was a timely policy action. Similarly, the National Payments System Strategy for 2022-2025 will guide banks as they innovate in the payments space.
- The 2021 Innovation Survey Report informs the impact of Fintech on the current operating models, including the emergence of new business models and evolving and emerging risks. It also provides an informed basis for evidence-based public policy decisions on Fintech going forward.

ANNEX 1

Glossary of Terms

Application Programming Interface (API) – describes a system architecture that enables interactions between different software applications via a specified set of protocols. This allows software applications to communicate with each other to exchange data directly or to access another software application's functionality, through automated access.

Artificial Intelligence (AI) – describes the activity and outcome of developing computer systems that mimic human thought processes, reasoning and behaviour.

Augmented Reality (AR) – refers to the real-time digital overlay of information over physical elements. A user's real environment is the predominant element, with extra information intended to augment the actual environment, rather than fully replacing it.

Big Data – refers to datasets that are too large or complex to be handled by conventional data architectures, including processing tools and techniques. The key characteristics of Big Data are volume (size of the dataset), variety (data from multiple domains), velocity (rate of data flow) and variability (changes to data characteristics). These characteristics are colloquially known as the 'Vs' of Big Data.

Biometrics Technology – refers to a technology that allows a person to be identified and authenticated based on a set of recognizable and verifiable physical and behavioural characteristics, which are unique and specific to them.

Cloud Computing – refers to a computing system that supports business and delivery models that enable on-demand access to a shared pool of resources such as applications, servers, storage and network security. Cloud computing is typically delivered in three forms, namely, Software as a Service ("SaaS"), Platform as a Service ("PaaS") and Infrastructure as a Service ("IaaS").

Distributed Ledger Technology (DLT) – is a technology configuration that allows records to be updated and tracked in a 'distributed' manner, as opposed to a 'centralized' configuration. The key elements of DLT are a distributed ledger, a network of participants, a consensus mechanism and cryptography.

Internet of Things (IOT) – describes communication architecture that allows devices or sensors to connect, communicate or transmit information with or between each other via the internet, thereby enabling the recognition of events and changes so as to react autonomously in an appropriate manner.

Machine Learning (ML) – describes computer systems that adapt and learn from experience through data classification, pattern identification and regression.

Digital-only Banking – describes a banking system where banking facilities are provided exclusively through digital platforms.

ANNEX 2

List of Respondents

a) Commercial Banks and Mortgage Finance Institution

1. Absa Bank Kenya Plc.
2. Access Bank (Kenya) Plc.
3. African Banking Corporation Limited.
4. Bank of Africa Kenya Limited.
5. Bank of Baroda (Kenya) Limited.
6. Bank of India.
7. Citibank N.A. Kenya
8. Consolidated Bank of Kenya Limited.
9. Co-operative Bank of Kenya Limited.
10. Credit Bank Plc.
11. Development Bank of Kenya Limited.
12. Diamond Trust Bank Kenya Limited.
13. DIB Bank Kenya Limited.
14. Ecobank Kenya Limited.
15. Equity Bank Kenya Limited
16. Family Bank Limited.
17. First Community Bank Limited.
18. Guaranty Trust Bank (Kenya) Limited.
19. Guardian Bank Limited.
20. Gulf African Bank Limited.
21. Habib Bank A.G Zurich.
22. HFC Limited.
23. I&M Bank Limited.
24. KCB Bank Kenya Limited.
25. Kingdom Bank Limited.
26. Mayfair CIB Bank Limited.
27. Middle East Bank Kenya Limited.
28. M-Oriental Bank Limited.
29. National Bank of Kenya Limited.
30. NCBA Bank Plc.
31. Paramount Bank Limited.
32. Prime Bank Limited.
33. SBM Bank Kenya Limited.
34. Sidian Bank Limited.
35. Spire Bank Ltd.
36. Stanbic Bank Kenya Limited.
37. Standard Chartered Bank Kenya Limited.
38. UBA Kenya Bank Limited.
39. Victoria Commercial Bank Limited.

b) Microfinance Banks

1. Caritas Microfinance Bank Limited.
2. Century Microfinance Bank Limited.
3. Choice Microfinance Bank Limited.
4. Daraja Microfinance Bank Limited.
5. Faulu Microfinance Bank Limited.
6. Kenya Women Microfinance Bank Plc.
7. Rafiki Microfinance Bank Limited.
8. Key Microfinance Bank Plc.
9. SMEP Microfinance Bank Limited.
10. Sumac Microfinance Bank Limited.
11. U & I Microfinance Bank Limited.
12. Uwezo Microfinance Bank Limited.
13. Maisha Microfinance Bank Ltd.
14. Muungano Microfinance Bank Plc.

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