CIS Kenya
Towards a more open credit market

CONFERENCE REPORT

THE 4TH REGIONAL
CREDIT INFORMATION SHARING CONFERENCE

Systemization of Fintech Disruption in Africa
Fostering market conduct and sustainability in digital lending

AUGUST 27- 31, 2018
KENYA SCHOOL OF MONETARY STUDIES
NAIROBI. KENYA

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Contents

4th Credit
Information
Sharing Regional
Conference Report
2018

Tables and Figures

EXECUTIVE SUMMARY

The explosion of mobile lending is severely limiting human interaction, and causing social apprehensions (such as over-indebtedness) and data protection concerns. On the other hand, the emerging disruptions are successfully promoting a cash-light economy and challenging traditional approaches to KYC, probability of default, and changing the dynamics of access to finance. On their part, risk managers are inquisitive about effectiveness of emerging risk assessment models and their integration with traditional scoring methodologies while policy makers are concerned about implications on consumer protection and financial sector stability.

The 4th CIS Regional Conference was organised to shed light on some of these issues in the context of complementarity between digital lending scorecards and credit bureau scoring models. It also gave practitioners from other parts of the world an opportunity to learn from Kenya the impact on financial access, risks and risk mitigants as well as policy responses to the fintech disruption in East Africa.

This Report summarises the contributions of policy-makers from the Central Bank of Kenya, Ministry of ICT and the Judiciary as well as deliberations by a host of private sector players and policy think-tank bodies on a range of topics. The Report is structured in four main areas:

Opening Session Highlights of welcome and opening remarks by four critical stakeholders and keynote speech by the Chief Guest

Plenary sessions Overview of all plenary sessions followed by comments, Q&A sessions

Recommendations and Conclusion Conclusions and recommendations reached by Conference participants

Annexes Conference Training Program reports

OPENING CEREMONY

1.1   Welcoming Remarks

Michael Oyier, the Conference moderator, welcomed participants to the 4th Regional CIS Conference organised by the Credit Information Sharing Association (CIS) Kenya. He introduced the key note speakers who included **Dr. Patrick Njoroge,** Governor, Central Bank of Kenya (CBK), **Dr. Habil Olaka**, Chief Executive Officer, Kenya Bankers Association (KBA), **Mr. Charles Ringera,** Chair, CIS Kenya and CEO and Board Secretary, Higher Education Loans Board, **Mr Mohammed Awer,** CEO and Secretary to the Board, World Wide Fund for Nature (WWF) Kenya and **Mr. Jared Getenga, CEO**, CIS Kenya

Jared Getenga thanked Dr Patrick Njoroge for accepting the invitation to officially open the CIS Conference and welcomed delegates to the Kenya School of Monetary Studies (KSMS). He recognised the presence of Justice Fred Ochieng who was pivotal in CIS Kenya's launch of its Alternative Dispute Resolution Centre, Gabriel Davel and Rashid Ahmed, CIS Kenya mentors, James Kashangaki from the Financial Sector Deepening Trust (FSD) Kenya which had supported foundational work for establishment of CIS in Kenya, Central Bank representatives from Uganda, Tanzania, Rwanda and Zimbabwe, as well as Ben Musuku, Lead, Financial Sector Support Project (FSSP) which in conjunction with the National Treasury would support CIS Kenya carry out a public awareness campaign on credit reporting. This was the first CIS Conference that included digital lenders such as Tala, Branch, Alternative Circle, Opera, Chamapesa and others.

Charles   Ringera officially   welcomed delegates to the Conference, organised to prioritise CIS in the agenda of policy makers, regulators, lenders, credit bureaus and the borrowing public. All the editions of the Regional CIS conferences have been attended by the previous and current Governor of the CBK, a demonstration of CBK's unwavering support to CIS Kenya in its endeavour to promote the Kenyan credit reporting system as a tool for risk management and pricing credit. The CIS mechanism has grown to one that has three licensed credit reference bureaus (CRBs) which are collecting data from all the regulated entities and 1800 non-bank third party credit/ data providers approved by the CBK. Kenya

Jared Getenga, CEO, CIS Kenya

Charles Ringera, CEO HELB and Chairperson CISKenya

continued improvement in the World Bank's Ease of Doing Business Index, is in part a testament of the contribution of CIS Kenya in the credit market.

Charles appreciated CBK for seconding a member of their staff (Jared Getenga) to CIS Kenya as its founder CEO and also for providing office space to the Secretariat at KSMS. CIS Kenya's contribution to the risk-based pricing taskforce under the leadership of the CBK and the World Bank Group has been rewarding. Our Governing Council continues to foster best practices in corporate governance by ensuring a broad based and committed membership including holding its Annual General Meetings as scheduled. The organization's audited accounts are prepared and circulated to all its members on an annual basis and may be viewed on the CIS Kenya website **(www.ciskenya.co.ke).**

Charles also thanked various institutions which have contributed to the sustainability of CIS Kenya, including FSD Kenya and KBA. This support has contributed to the accomplishment of numerous achievements, such as introduction of legal reforms on CIS. The SACCO Societies Amendment Bill of 2017 will soon mandate sharing of both positive and negative information by licensed Sacco's. The role of the Ministry of Industrialization, National Treasury and the Sacco Societies Regulatory Authority (SASRA) in championing this legal reform is noteworthy. CIS Kenya has made contributions to the ongoing review of the CRB regulations, and we look forward to an overarching legislation that allows all credit providers and utility companies to participate in the CIS mechanism.

Through Tatua Centre we offer free Alternative Dispute Resolution services to consumers who dispute the accuracy of their credit reports. As of July 2018, a total of 816 consumers had benefited from this service.

On behalf of his CEO, Mohammed Awer, **Jackson Kiplagat** highlighted Fintech as an emerging platform with great opportunity to improve financial service provision in payments, investments, financial information, financial advice and asset management. WWF recognises that the finance sector is exposed to systemic risk related to environmental issues arising from physical impacts of weather, natural conditions, climate change, water risks amongst others. In a low interest rate environment, the finance sector has to be increasingly interested in new growth opportunities which underpin a more sustainable planet like impact investments.

WWF works to make environmental risks clearer, catalyse innovative and new financial products that are able to capitalise on new growth opportunities towards achieving sustainable development. WWF works with the finance sector, Government and other players towards encouraging a meaningful shift by influencing improved integration of environmental risks within the decision-making systems, finance to deliver investment to sustainable development and to drive sustainable practices throughout the economy. As a conservation organization that focusses on forestry, fresh water, oceans, climate, energy and food, WWF sees finance as a tool and critical driver of sustainable practices. By focussing on Fintech disruption, this Conference offers an opportunity for our continent to take advantage of this positive disruption.

Jackson Kiplagat, Regional Sustainable Investments Manager, WWF Kenya

Dr. Habil Olaka acknowledged the role of Central Banks in the development of CIS systems in credit markets. The World Bank's General Principles of Credit Reporting, which has gained recognition as a best practice guide for credit reporting around the world, outlines the role of authorities in promoting a credit

Habil Olaka, CEO KBA

reporting system that is sufficient and effective in satisfying the needs of various participants and supportive of data subjects, consumer rights, and the development of a fair and competitive credit market.

In Kenya, the Central Bank has applied itself fully to the promotion of CIS in a manner that responds to the guidance of these general principles. Its partnership with industry over the last 10 years has ensured the continued existence of CIS Kenya. More recently, the formation of a Technical working group (TWG) that consists of representatives of the World Bank, CBK, CIS Kenya and selected banks provides a consultative forum that has delivered various outputs intended to improve the CIS mechanism. These deliverables include revised data specifications and aims to actualise daily submissions to respond to the need of more up to date information for credit decisions. We also expect enhanced uniformity in data held amongst the credit bureaus. These outputs are relevant to the Conference agenda because

daily submission of data responds directly to market demand for faster turnaround of data especially in the context of digital lending that has been embraced by both banks and non-banks.

KBA further identifies CBK's role in championing fairness and transparency in granting credit. The Kenya Banking Sector Charter tasks banks to use credit information as a benefit to the consumer. KBA endorses the push by CBK for mandatory use of credit information and its application in risk-based pricing. Kenya's Regulator – Regulatee partnership is worth emulating in other markets around Africa for faster and more effective growth of the CIS mechanism, and eventual cross border data sharing.

1.2 Excerpts from Key-Note Address by the Chief Guest, Dr Patrick Njoroge

"Charles Ringera, Chairman of the CIS Board, members of the CIS Board, the CEO, (Justice Fred Ochieng – Thank you for gracing this occasion), representatives from banks, other institutions, World Bank, distinguished guests and Conference Participants: Good morning to all of you. I am pleased to join you today at the start of the 4th Regional CIS conference and thank CIS Kenya for the invitation and opportunity to give this opening address. Particularly welcome those that have come outside the country especially our brothers and sisters from the East African Community and elsewhere. Your insights will enrich the discourse on credit reporting and contribute towards the objectives of CIS industry.

The theme of this conference: *Systemization of Fintech Disruption in Africa* is an apt one for the times we are in. Indeed, the deployment of digital technology in all facets of financial services has significantly enhanced and revolutionized service provision. The use of Fintech is increasingly changing the interaction between providers and consumers of financial services including credit reporting. I am pleased to note that financial technology and its impact on the financial sector will be a key part of this conference agenda. Fintech offers us the best chance of expanding financial inclusion and also greater sharing of wealth in our nations. However, there is much to be done.

Dr Patrick Njoroge, Governor, Central Bank of Kenya

The use of Fintech is increasingly changing the interaction between providers and consumers of financial services including credit reporting.

The CBK envisions a banking sector that works for and with all Kenyans, anchored on four pillars namely: (i) Adoption of customer centric business models; (ii) risk-based credit pricing; (iii) enhanced transparency and information disclosure; and (iv) an ethical culture where players endeavour to do what is right. So, what's the role of CIS in this vision? What contribution will CIS make towards realization of this vision? As a critical part of Kenya's financial infrastructure, the CIS mechanism is set to play a key a role.

Before that, there are questions that you practitioners and we Regulators struggle with. The first is data: Should we look at the positive data or negative data? The second is around expanding the data set to utilities. Then there is the issue of speed, how up to date is my information? Is my credit score near real time in terms of my borrowing patterns? Does that get reflected quickly? These are the three things we need to discuss. Three years ago we looked at one of the largest lending platforms in Kenya and noticed that the *mama mbogas* were borrowing at 3 O' clock in the morning and would use the money in the course of the day and then in the evening would repay. They would have kept the money for 30 days but for some strange reason would repay in the evening and then the next morning borrow again. As an economist and financial planner, I would talk to the lady and tell what you are doing is crazy, keep the money for 30 days. Eventually you realize that the ladies had figured out that by borrowing several times during the month, the algorithm that this platform was using would allow her to eventually borrow twice as much. In a sense you realize the ladies were better than Cambridge Analytica. Somehow our CIS system does not catch up with what is going on in the trenches. My challenge to you is it seems we haven't pushed ourselves. We need to break out of our shell and not be like the others. My favourite nonfiction piece by V.S. Naipul is titled "What's Wrong with Being a Snob". We do not need to be like the US or South Africa. The CBK isn't to be like the others but wants to be the leader.

As a support initiative, the CIS mechanism can work to meeting the needs of market participants in the following four ways: (i) Customer centricity – putting the customer at the heart of business. This means handling customer information fairly and ensuring data is accurate and continually updated. Today's technologies and digitized communications provide credit reference bureaus with a cost-effective channel to reach the market and be responsive to customer issues. There are big changes in credit information that have resulted to new service offering such as mobile lending. It should be possible, assisted by technology, to

update customer credit information on a real time basis. Keeping customer credit profiles up to date at all times; (ii) Credit pricing – With enhanced capacity to assess credit worthiness, borrowers with good information capital should benefit from competitive credit pricing. CIS is a key element in this determination. (iii) Transparency – For the CIS model to gain the necessary traction with market participants, and for them to appreciate the process through which credit scores are derived, maintained and applied. At the very least the processes should be logical and understandable to customers and market players. Some of our banks have been slow in areas like analytical (credit scoring) models and want to use their own which they created but which is a black box. (iv) The fourth element is ethics. The CIS mechanism should be underpinned by a culture of integrity in the handling of customer data – ensuring data is used as authorised. CRBs could also promote an ethical culture of sensitizing their customers on correct data use with a view to ensuring data privacy and confidentiality. CBK's vision for the CIS initiative is one that effectively facilitates the use of information capital among market participants in accessing credit. It should also nurture market discipline among participants. Towards this objective, there has been some wins over the last few years. I am glad to note that credit reporting is gradually earning acceptance among the public as an appraisal tool and market discipline is gradually developing among market participants. Since its launch in 2010, usage of personal and institutional credit reports has risen from less than 300,000 in 2010 to 4.4 Million in 2017 with lending institutions dominating these requests. Third party data providers increased from 0 to 1500 by end of 2017. With the increasing participation in the mechanism, the use of credit reports is now becoming an integral element in the appraisal of credit applications but there is still much to do. As we register

the successes, we must also acknowledge the challenges which need to be addressed with appropriate solutions.

The CIS mechanism still faces challenges relating to data quality, data transmission, differences on the rating scales used by the different CRBs, and failure of credit scoring models to respond quickly enough to new pertinent information. In addition, handling and resolution of consumer complaints needs to be improved for greater responsiveness of customer needs. In view of the large data involved in the CIS mechanism, information technology has become an indispensable tool for processing transmission and retrieval of data. As databases become increasingly complex there will be greater need for more specialized systems and human resources to administer these systems. Appropriately designed, information systems are critical in data handling challenges and need to be addressed effectively. I further note there is need for coordination between CRBs, data providers, and lending institution to ensure their respective systems are compatible for smooth interaction. In this regard I would like to note among the market infrastructure developments currently being contemplated by the CBK and industry participants is the establishment of a data hub that would serve as a common CIS data repository. This would address concerns of system compatibility among various market participants. As we maximise on the advantages of technology in effective data management we should also be alive to the risks around data security, integrity and business continuity.

With financial service providers being increasingly reliant on technological platforms to provide services they are also vulnerable to cyber risk incidents which include unauthorized access to data, system hacking and corruption of stored data. These pose significant operational, legal and reputation risks that should be mitigated through adequate safeguards and business continuity plans.

The Roma philosopher, Seneca said "It's not because things are difficult that we do not dare

4,400,000

Rise in usage of personal and institutional credit reports in 2017 do🗨 rom 300,00 in 2010

but it's because we do not dare that things are difficult."

In consultation with other industry players, CBK is pursuing various initiatives to address the challenges facing the CIS mechanism, in the following areas:
- Improving the quality of reporting by CRBs and lending institutions particularly on new service offerings such as mobile lending
- Enhancing transparency by CRBs in their credit scoring models
- Embedding credit scores on credit risk pricing by banks
- Addressing consumer concerns through sensitization of the CIS mechanism
- Enhancing data security, business continuity and cyber security resilience

The development of an effective CIS mechanism is a journey involving many participants and none of whom can carry out the process on their own. It is therefore important for all players to collaborate on the journey to ensure the CIS initiative supports the banking sectors vision. I am therefore glad to note the various initiatives being undertaken by the CBK, CRBs, various banking sector players and other development players towards addressing the challenges hampering the CIS initiative.

I am informed that CIS Kenya has organised training programmes on credit risk and problem loan management as part of the Conference programme. I commend the organisers of this initiative which will add to other capacity building efforts. As we strive to ensure capacity in this regard, my challenge for all participants is to deliberate and come up with solutions to the challenges facing the CIS mechanism. This will enable the mechanism achieve its intended objective of enhancing access to credit including by underserved market segments particularly the micro small and medium sized enterprises.

With these remarks, Ladies and Gentlemen, it is now my distinct honour and pleasure to declare the 4th Regional CIS conference officially open. I wish you fruitful deliberations. Thank you very much."

2. PLENARY SESSIONS

2.1 Session I: Transformation of the Credit Bureau in Africa

A growing number of companies are responding to the exponential growth of mobile phone usage and the rapid escalation of processing power with new ways to turn digital trails into financial track records. This new approach to consumer risk assessment can reduce the risk of lending and the cost of borrowing, eventually transforming the industry by redefining and democratizing credit scores in developing countries. **Thilasoni Benjamin Musuku,** Senior Financial Sector Specialist, World Bank Group (WBG) explained that Fintech offers a rapid way of increasing access to finance but at the same time there are risks and vulnerabilities, including:

- Market abuse
- Over indebtedness
- Cyber-attacks and cyber security
- Financial stability implications

WBG engaged on the topic of Fintech at three levels namely:
I. Globally: At the standard setting bodies such as the committee on Payments and market infrastructure and the International Committee on Credit Reporting (ICCR). A guidance note on the use of alternative data to enhance credit reporting was issued in June 2018 by the ICCR which is chaired by the WBG. WBG is also represented on the BIS committee which has issued a guidance note on cyber security.
II. Regionally: In advisory services and financing operations, working in regulatory sandboxes in Jordan, Morocco and Indonesia, in Cyber security frameworks in Pakistan, digital finance roadmaps in Afghanistan, and in Africa a new programme on digital finance partnerships.
III. Guidance tools and toolkits: Knowledge and

thought leadership is distilled in practical terms, policy recommendations and guidelines. This includes like the G20 high level principles as well as aspects like cyber security simulations.

Three FinTech themes are emerging globally:
- Will technology allow developing countries such as Kenya to leap frog to universal access to finance, education, health etc?
- Is technology a disruptor that can destroy livelihoods/jobs?
- Technology today presents us with access to data which was not readily available in the recent past. Data can enable digital profiles to be created.

Digital profiles

What is enhancing the development of digital profiles?

I. Digital transformation of economies is happening because of connectivity of people, businesses as well as of devices. This is shaping how businesses are structured and the way they interact within the market place.
II. Digital entrepreneurs are emerging to redefine the structure, interaction, how consumers get goods and services as well as information. The resulting digitization of transactions: the mining of data. "The incumbents like the banks have been lazy". What sort of policies or programmes are needed to move the frontier forward? There could be issues around broad band access, access to electricity, digital skills, analytical skills etc.
III. Fintech is enabling new business models, processes and products that are emerging. New norms are emerging such as decoupling or different combinations of businesses. Within the financial services

space, the innovations are still taking place in the traditional sort of functions of the financial system e.g. deposit taking, lending, capital raising, payments and settlements, insurance, investments management.

Fintech investing is still on its infancy. Some of these innovations are yet to go through the full economic cycle. There is still limited data to make conclusions on Fintechs. Who are the business enablers in the fintech ecosystem? Who/what are the drivers of value? How can they collaborate with Government agencies to create an enabling environment?

Regulatory approaches to fintech are evolving. Policy makers are thinking a new on making adjustments to leverage on the potential of fintech has while managing the risks. There is consensus that not too much pressure is being put on financial stability issues by the fintechs. The focus right now seems to be on balancing integrity, innovation and competition.

2.2   Session II - How the Consumer Has Benefited from Credit Reference Bureaus (CRBs)

Sam Omukoko, MD Metropol CRB, focussed

Sam Omukoko, CEO , Metropol CRB LTD

on four key areas, cost of credit, acceptance rates, product development and risk management. Metropol serves all banks and microfinance

banks, over 1700 SACCOs, over 200 Credit only MFIs and over 300 Trade organizations, and aims to have about 3,000 credit providers on its system by end of 2018.

Metropol's credit score, Metro score, has a 200 – 900 range. The 200- 270 range manifest some default item or irregular payment habits, while the 830 – 900 range reflects the least probability of default. 11,343,101 individuals have been assigned a Metro score, with the average being 615 as illustrated in the figures below.

Fig1. Total population of individuals with Metro score
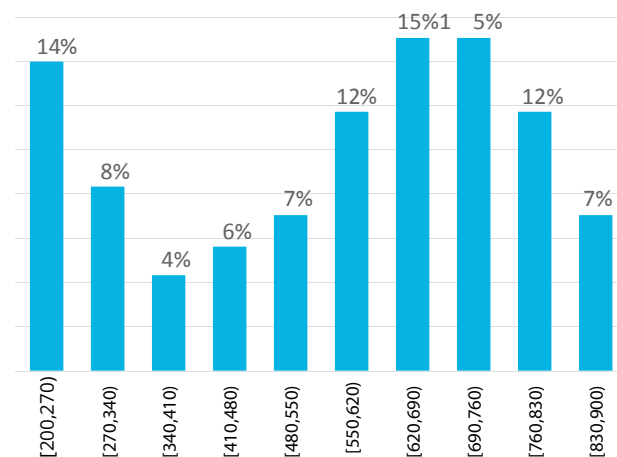
Fig 2. Probability of default measures of the Metro-Score
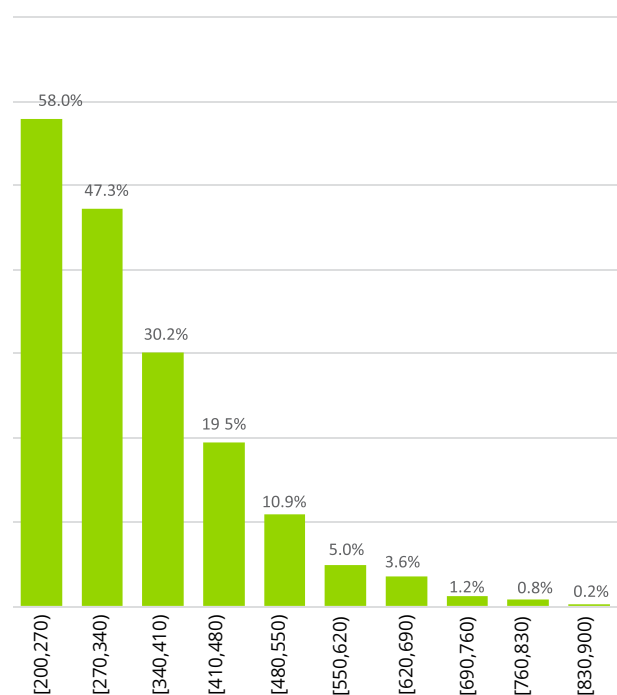
Fig 3. Impact of the interest rate cap on lending decisions
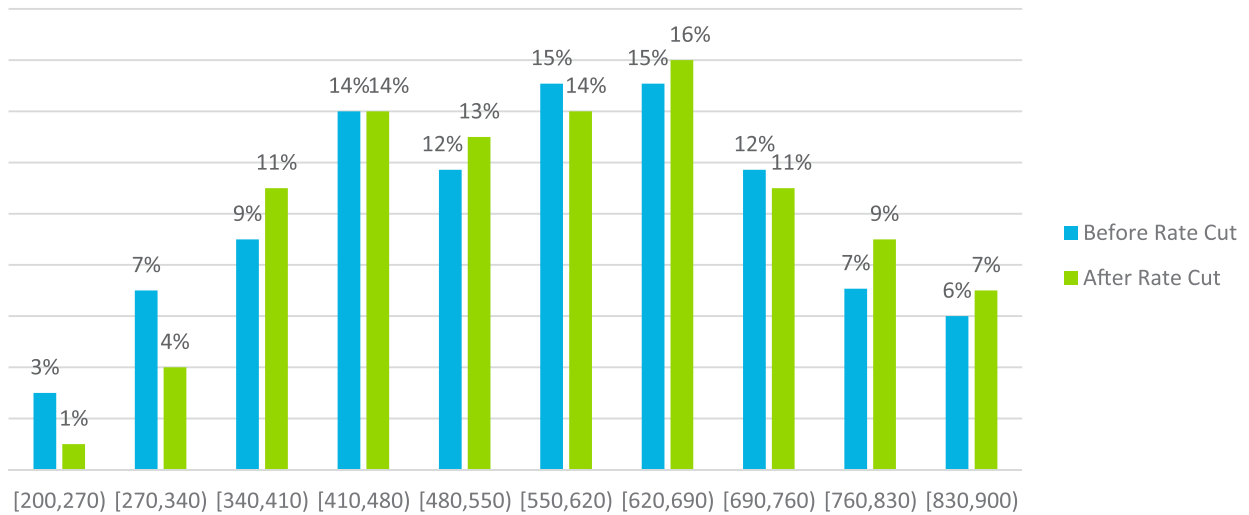
Lenders are indeed using the Metro Score to determine their lending decisions, but the rate caps have not led to any significant difference in the profile of customers' risk. The Metro Score is therefore still not a discriminant factor in the lending process. Removal of the rate cap should result in a shift towards higher score customers (lower risk).

The mobile loan product has grown tremendously over time, with market entrants finding it easier to launch loan products through mobile than through the traditional route.

Fig 4. - Mobile loan Product growth
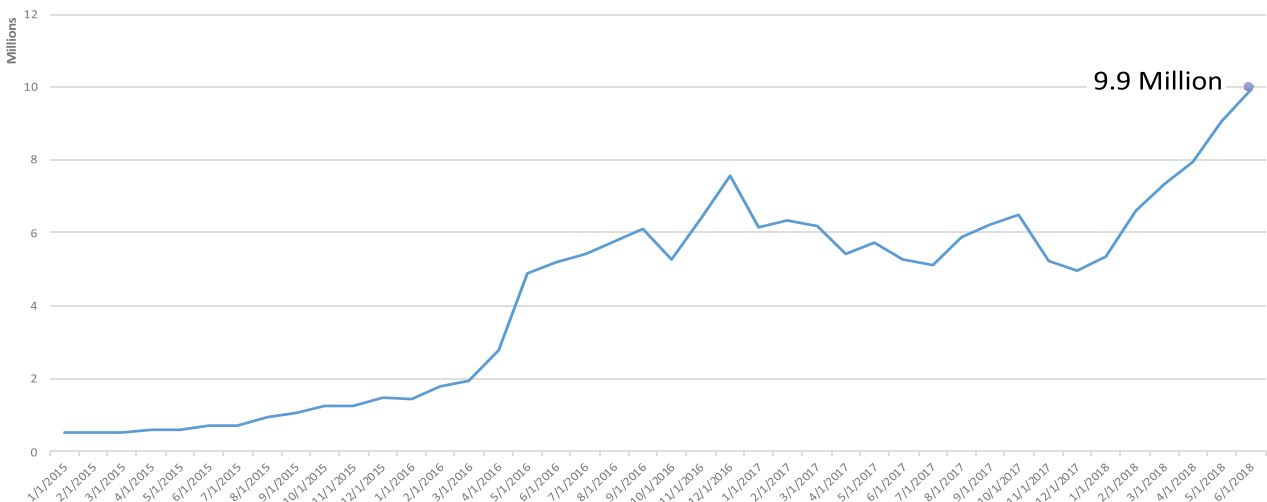
Customer acceptance rate has increased in comparison to the pre-CIS era. Fintechs have been extremely successful and innovative by using alternative information such as social media data to develop algorithms that predict a borrower's ability to repay.

Fig 5. - Acceptance rates of new borrowers
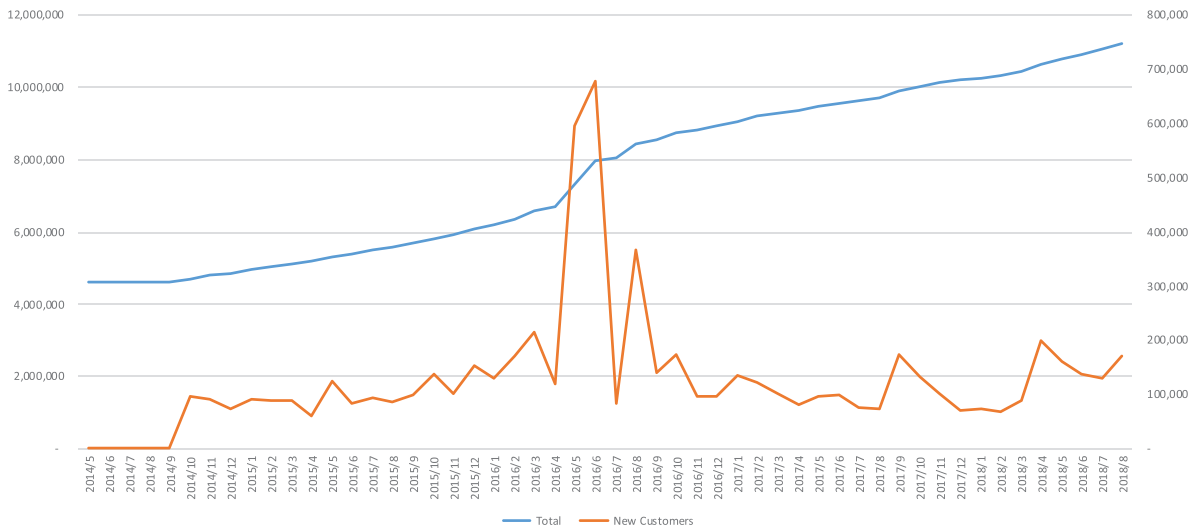
Fig 6.- Lenders per customer

- One
- Two
- Three or more
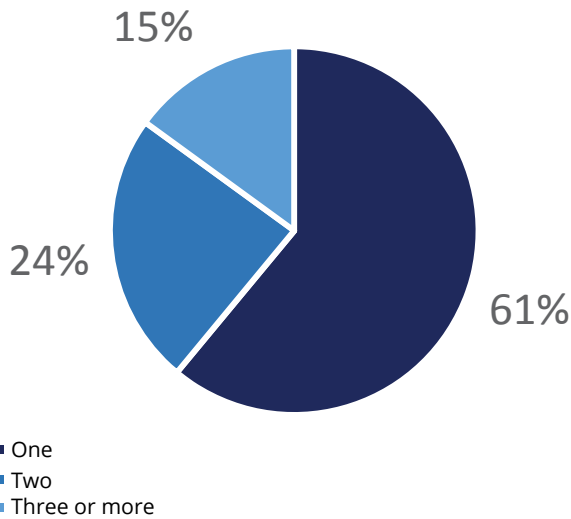
Fig 7. Performance of Multi - borrowed customers

- Non-performing all
- Performing- All
- Performing- Non performing
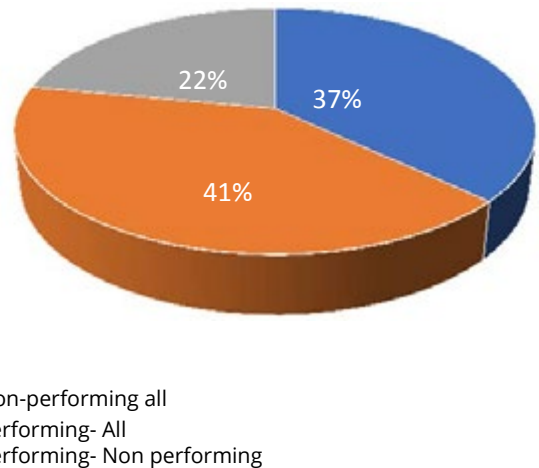
Table 1. Average debt: Mobile debt vs Non-mobile debt

Mobile Debt	KES	Non-Mobile Debt	KES
Average Loan Debt	3,556	Average Loan debt	589,261
Total debt Average	26 Billion	Total debt	2.7 Trillion
Mobile Loan Debt at default	3,426		
Net Performing Assets (NPA)	7 Billion (26%)	Net Performing Assets (NPA)	481 Billion (17%)

Table 2. Metropol CRB's vision of the future

Big Data	Give a full customer view of transactions Provide more opportunities for product development Better risk management insights
Analytics	More tools for analysis Efficient processes Better customer service Improved customer experience
FinTech	Innovation beyond current boundaries Potential to increase systemic risk
Tomorrow's successful Bank	One that will increase profitability through cost reductions

2.3 Session III: Africa's credit market: strategic solutions to emerging issues

This session, moderated by **Ravi Ruparel,** covered new developments in Africa's credit market led out by **Gabriel Davel,** Director – Credit Market Development Programme, FSD Africa and emerging data sharing models, presented by Rafe Mazer Consumer and competition in financial services expert.

2.3.1 State of Credit Market Development in Africa & Emerging Opportunities

FSD Africa's credit market development project has observed that credit bureaus are exceedingly important but their effectiveness is limited by inadequate data. Lending to agriculture is hampered by high defaults ranging from 30% to 90%.

Private credit to GDP averages 21% across Sub-Saharan Africa (SSA), compared to 46% in Latin America and the Caribbean, 57% in East Asia and Pacific, 40% in South Asia and 107% in high-income countries. Private credit to GDP averages 11% in low-income countries in Africa compared to 21% in low-income countries outside Africa. For countries in SSA the % of Domestic credit to GDP vary from as low as 5% and 6% (DRC and Chad) to around 30% (Kenya and Botswana) and 47% for Namibia. North Africa has significantly higher percentages, varying from around 40% to nearly 80%. South Africa is an outlier in SSA and Africa with a Domestic Credit to GDP % of 149%, which is close to the OECD average.

Fig 8. - Domestic credit to Private Sector

Domestic credit to private sector
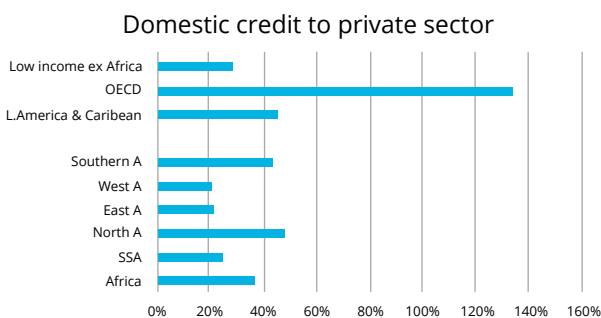
Fig 9. African Countries: Domestic Credit to GDP%
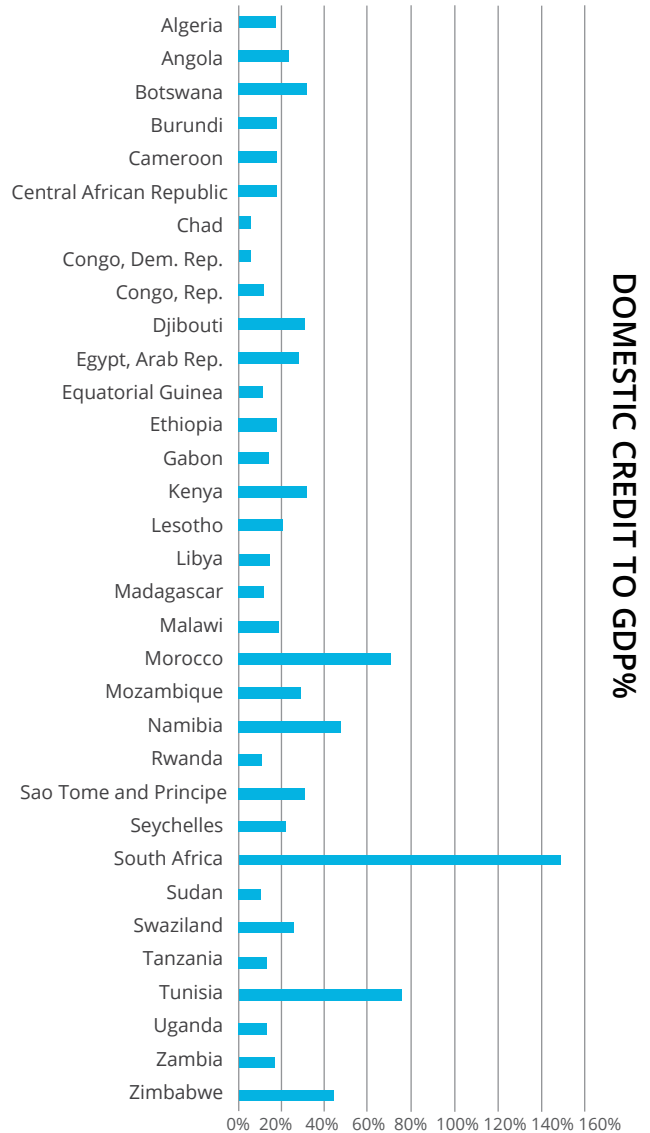
McKinsey research established that Africa's banking markets are among the most exciting in the world, the second-fastest-growing and second-most profitable, and hotbed of innovation. It revealed some projected trends:

· Almost 300 million banked Africans; projected to grow to 450 million by 2022
· Fewer than 20% of African banking customers hold products such as lending, deposits, insurance, and investments
· Approx. $86 billion in revenues, $53 billion will be in retail banking

African banking still has the second-highest cost of risk in the world, not least because of a paucity of credit bureaus, combined with immature risk management practices in many banks. Africa has the second- highest cost-to-asset ratio of any region in the world, at 3.6 percent, implying high cost of credit hence a high interest rate which is aggravated if loan sizes are small.
Badly structured interest rate caps always affect small loans and enterprise loans most

negatively. The implementation of interest rate caps can be as a result of the following:
- Weak understanding of cost factors
- … implications of composition of loan portfolio
- … implications of massive competition problems
- … APR and similar heresies
- limited statistics are a hindrance to efforts aimed at reversing interest rate caps.

Fig 10. Future African banking projections by McKinsey
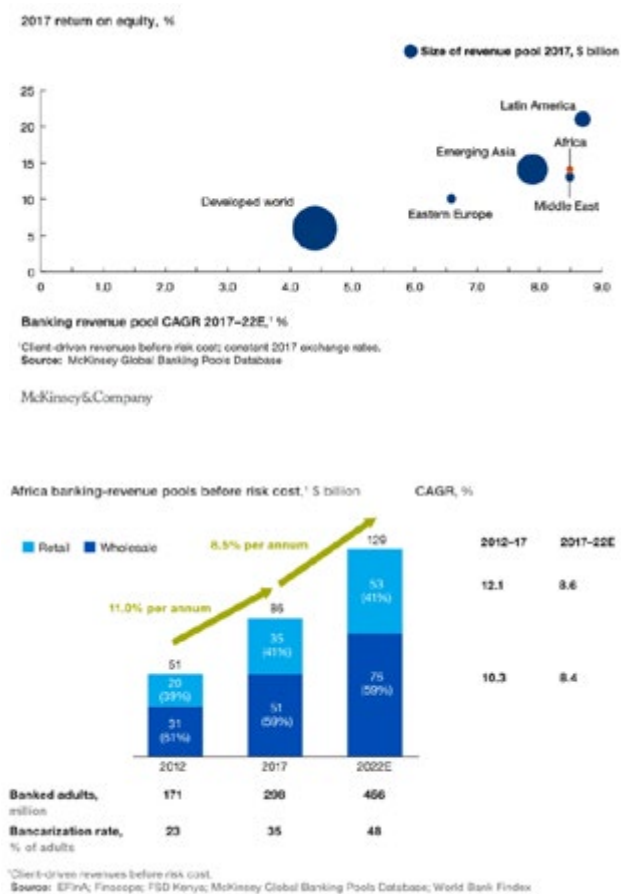
Fig 11. Cost of credit
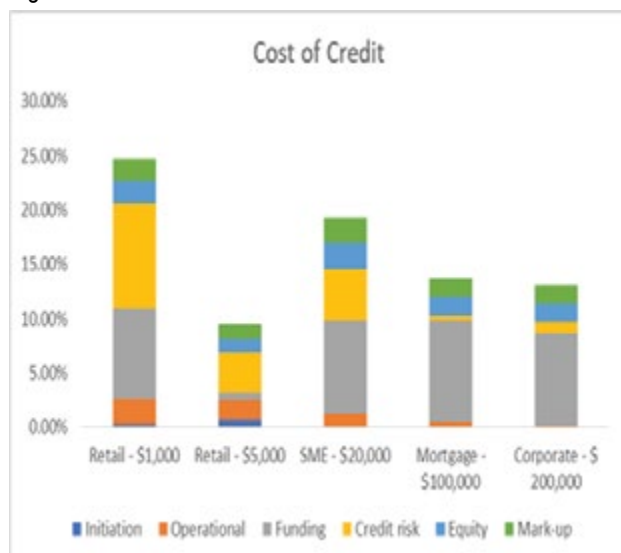
Analysis of the digital loans data in Tanzania and Zambia reveals the following:

- Very many very small loans ~ average US$ 11 loan size, repayable over 18 days
- Very high late payment and non-payment (49% Non- performing loans (NPLs))

How realistic is the euphoria about digital … what problems can it / can it not solve in the areas of Payment interface, Credit risk prediction, Client identification, Lending to SME (larger loans), whether business or agricultural? *'Be careful of prophets that promise to solve the problems of the world with no more need for hard work!'*

Table 3. Summary of digital credit supply in Tanzania and Zambia

Credit provided by different categories of credit power	TNZ (2016)	ZAM (2016)	ZAM (2017)
Number of suppliers	4	1	1
Total outstanding credit – USD Millions	26.8	0.8	4.88
of total	<1%	<1%	<1%
Number of agreements*	3,589,886	45,256	279,859
of total	48%	7%	30.9%
Average size of agreement USD	11	18	17
Average repayment term (months)*	18 days	30.6 days	29.9 days
Estimated NPL*	49.42%	-	-
Allowance ratio	-	21%	35%

African policy makers and regulators will need to improve on:

- Statistics on credit markets - to strengthen understanding of gaps & constraints by working with Central Banks and other financial sector regulators
- CIS mechanism – Through the credit bureau most of the data on credit markets could be collected however there is still a lot of underreporting and little or no regulatory enforcement.
- Inappropriate lending rules that inhibit credit growth.
- Debt enforcement legislation.

2.3.2 Emerging Data Sharing Models to Promote Financial Service Innovation

A data sharing model as "a service, platform, or product that collects and/or creates digital records for individuals including financial history and alternative data (e.g. web history or phone records); and allows individuals to make this data available to multiple third parties offering products and services."

If consumers have greater control over their data, the impact on financial services could be profound in the following ways:

- **Increased financial access.** Better ability to identify individuals and businesses, and qualify these consumers and businesses for financial services.
- **Financial service innovation.** Increased diversity of data can better segment consumers and offer greater customization to existing or new products.
- **Increased competition.** Data concentrated on MNO channels and internet platforms that can effectively pick winners. Consumer ability to port data reduces barriers to entry so more firms can use consumer data for risk assessments and product recommendations.
- **Consumer welfare.** With increased access, product innovation and competition, financial consumers should start to receive more competing product offers and competitive pricing.

There are four data sources in the Kenyan market namely: (i) Mobile Money Operator Ecosystems; (ii) Credit Bureaus; (iii) Real Economy Data Digitizers; and (iv) Alternative Data Collectors

Table 4. Data sources in our markets

Data source	Characteristics
Mobile Money Operator Ecosystems	Use ID, CDR and financial data
	Partner with select financial service providers who use data and outreach channel of MNOs
	At least one MNO piloting sale of a credit score to broader base of lenders.
Credit Bureaus	Expanding scope of data sources from FSP to include utilities, bill pay and digital financial services
	Challenged by limited coverage of credit bureaus and data consistency
	Traditional lenders not utilizing credit scores extensively for lending decisions.
Real Economy Data Digitizers	Digitizing farmers, pharmacies, MSMEs, etc.
	Do not always have legal right to let consumers share data from participating banks and MNOs. Mix of private firms and civil society
Alternative Data Collectors	Use scraping and other over the top methods to gather alternative and traditional data
	Generally not regulated
	Raise data privacy and security concerns
	Not beholden to banks or MNOs due to over-the-top app and web browsers.

A consumer led data sharing model would have the following characteristics:

I. All financial service providers must let consumers access their financial history.
II. Consumer determines when, why and how to share/revoke data access.
III. Data management services help consumers control data and manage consent to view data for firms.
IV. Consumers receive product offers leveraging their data from more than just one lender/channel provider partnership.

Three buckets of considerations that should be pondered while developing data sharing models:

I. Existing infrastructure considerations
II. Policy considerations
III. Model design considerations

Table 5. Existing Infrastructure Considerations

Category 1: Existing Infrastructure Considerations	
1. **Existing Digital Finance Infrastructure**	• Have large segments of financial, economic and personal data been digitized? Are transactions highly digital? • Are these services interconnected or fully interoperable?
2. **Digitization of Government Information**	• Does the government have well-functioning ID and e-KYC services? • Are there additional digitized government information that can be leveraged (e.g. tax records, property records)? • How large is the formal sector in economy.

Table 6. Policy Considerations

Category 2: Policy Considerations	
3. **Public versus private sector led model**	• Public sector can have broad reach, but may be limited in flexibility and cross-industry applications, or require major policy reforms. • Private sector models enjoy flexibility in firms and data types, but may lack proper governance or consumer rights architecture, and may include barriers to entry for some firms or consumers.
4. **Strength of existing policy mandate**	• How broad is market coverage in financial services to ensure a level playing field? • Is there a strong competition authority, or any sector-specific competition mandates to impose data sharing requirements? • Would new legislation be needed to enable data sharing? • What are relevant supervisory bodies for data privacy and data rights?
5. **Data privacy and protection**	• Are there existing data privacy laws or regulations that cover topics such as consumers' rights to data security, control over sharing of their data, rules on provider's data handling practices and liability for data breaches?

Table 6. Policy Considerations continued

Category 2: Policy Considerations

6. Consumer control over data	• Are consumers given case-by-case control over the sharing of their data and revocability of such permissions; or are providers permitted to use general consent to share data with third parties at their discretion and with limited consumer visibility? • Does the consumer directly views and manages their data and/or access privileges or delegate third-parties to collect and utilize data on their behalf with rights such as specific usage and revocation? Or is consent in a single, non-specific format, with limited ability to monitor or revoke sharing privileges (a problematic practice)?
7. Data sharing rules for providers	• Is data sharing voluntary or mandatory, and which sectors and information types does it cover? • How is the data sharing system and data quality monitored? E.g. Single agency, cross-sector, self-regulatory organization.

Table 7. Model design considerations

Category 3: Model Design Considerations

8. Inclusivity of approach for base of pyramid consumers	• Does the model have an explicit objective to serve base of pyramid consumers and the financial services and providers they use? • Is the model not easily accessed by base of pyramid due to technology interface (e.g. personal computer, smartphone app) or data types (e.g. bank record only)? • Can third-parties facilitate ease of usage in low-tech environments? • Are most relevant types of providers and services included?
9. Data categorization	• Is the data restricted to specific types or industries (e.g. official IDs, financial data) or open to traditional and alternative data (e.g. block chains IDs, social media data)? • How is alternative data defined? Is data shared in raw format or summary templates/statements?
10. Data storage	• Is data stored in a centralized location or dispersed across various data collectors to avoid risk of a "honeypot"? is the consent process centralized and archived? • Is data managed by a government or private sector entities? • Are there time limitations on storage and sharing of data? • Are there clear definitions on how and whom can collect, share, manage and use consumer data?

What roles might credit reference bureaus and aggregators play in data sharing models?

I. **Interoperable Nexus:** Technical solutions to link transactions and consumer data records across financial services and other sectors.

II. **Data Collectors:** Receive data on behalf of consumers, set standards for data quality and submissions, standardizing data into usable formats.

III. **Scoring and Analytics Services:** Develop services that firms can outsource to segment and risk-rate consumers based on data they generate across providers.

IV. **Financial Service Providers:** Develop their own merchant, card and agent networks that generate useful consumer data which can be leveraged for scoring and lead generation.

Providers are already pushing limits of what is and isn't a credit bureau in absence of new rules

Safaricom in Kenya is moving beyond closed-loop bank partnerships and piloting a credit score with select FinTech lenders. It is offering a set of four different scores for each customer based on deposits, receipts, and bank to M-Pesa transfers (see Figure 14). The model uses an API where the lender provides an applicant's phone number, name and ID, and then ping the Safaricom API for the scores. *This data includes bank loans administered on the mobile money channel.* While the information these firms use is not exclusively credit history, that type of information is usually included, and these firms are generating credit scores that are being shared with others outside the CRB system. Obtaining a CRB license may be an excessive measure to impose on these types of private marketplaces. However, there is likely a need to develop some form of standards regarding how consumers' alternative data are used to build credit scores that are then shared beyond the firm doing the data collection.

Credit Scoring

Fig 12. MNO credit scoring model

- This is a score card on our customers and their behaviors. The score card will be based on the type & usage of Safaricom products, frequency and repayments of credit facilities using Mpesa. This will give insights to
  - Customer behaviour and supplier capabilities
  - Display customer preferences and trends
  - client can customise services and Production based on different customer segmentations and habits
- The data will be categorized into 4 parts
  - Know your customer
  - credit profile
  - M-pesa financial information
  - Customer Profile

Know Your Customer
• Who is the Customer? Validation Services

Credit Profile
• Behavior on various credit facilities on M-pesa

Credit Profile
• How long have they been our customer?

M-Pesa financial information
• Telco Usage
• Bonga Points
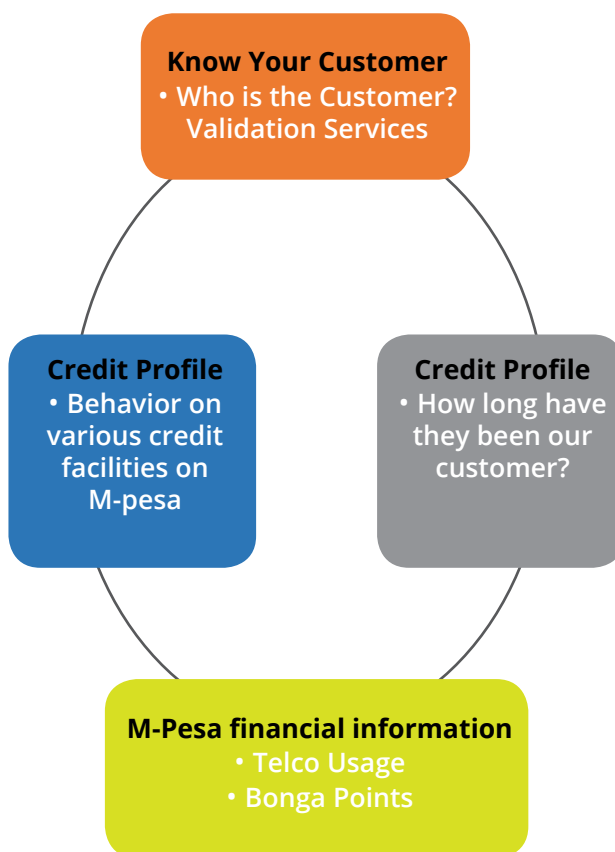
Fig 13. - Safaricom credit scoring model continued

Customer Attributes		Target Market
KYC	**Kshs. 10.00 per item.** This will provide you with the customer's Name, ID as registered on the network	Virtual Account Opening
Customer validation with Disbursement Transaction	**Kshs. 6.00 per item** in addition to the B2C tariff This will provide you with the customer's Name, ID as registered on the network	Mobile disbursements/ claims/ commissions
Customer profile	**Kshs. 6.00 per item** This will help assist reduction of fraud by showing age on the network, date since last SIM swap as well as the IMSI being used.	Virtual Account Opening, KYC Checks
Financial Information	Kshs. 100.00 per customer record. The customer profile will be included as a value add at no extra cost.	Lending & Customer Profiling Institutions

Data sharing models should be a policy priority in East Africa because
(i) High benefits for access, innovation, competition and consumer welfare if data sharing models in financial services continue to expand;
(ii) Data privacy risks and lack of data privacy laws mean models should grow incrementally and be judicious about what data is included;
(iii) Various policy models that offer a range of paths to take—although some form of mandatory data porting likely a must; and
(iv) Private sector innovations in connectivity, data management, and alternative data analysis pave the way for market-wide models that are open to all providers.

2.3.3 Session comments, question and answers (Insert issues below in a box)

Issue 1: Is there potential for more credit market segmentation other than the normal/

regular - Corporate, SME, Consumer and more recently digital financial services?

Segmentation of the market by credit providers will become more effective when public statistics are more available and easily accessible.

Issue 2: Are we thinking of digital KYC?

If any single identity document i.e. passport, driver's license, national ID is put into the credit bureau then credit providers through the validation rules will be able to identify if it is the same person, instead of waiting for Government long-term solution of a more unified identification system.

Issue 3: What are the incentives for private sector on data sharing models?

It is easier for private sector players to classify different types of information and implement digital porting gradually. You could start with

the official identity and actual financial history data of a consumer. It is harder to implement data porting for alternative data since its always changing.

Issue 4: How do you achieve the congruence of the two perspectives – gather then share all the data and data privacy?

CIS will be of more benefit to a greater number of people than depending on getting consent from the individual consumer. Emerging privacy policy is moving away from broad based one-time consents to principles that put more burden to providers such as data minimization – that data being collected should be for a specific purpose, rights to revocation – consumer has right to revoke access to data, rights to be forgotten and rules on sharing data with third parties.

Issue 5: Has CIS made a difference? Is there an increase in private sector lending? Is CIS the main constraint in unlocking credit markets in Africa?

CIS makes an impact on credit markets even if it is negative information sharing. The Kenya CIS model is the quickest/fastest growing and competitive model in the world. Problems arise when too much information, e.g. SACCOs, is not shared.

2.4   Session IV: Fintech innovation partnerships

CreditInfo operates in 41 countries around the globe, and was licensed in Kenya in 2015 before becoming fully operational in 2017. It offers Credit bureau services, Decision analytics and consultancy, Business information and information solutions and Fintech innovations.

According to CEO **Steven Kamau Kunyiha**, CreditInfo data analysis reveals a decline of about 1 million new contracts from Q1 2017 to end of 2017, attributable to the interest rate cap. Delinquency increased by 3% in 2017. The mobile loan market poses challenges to banks due to market stagnation and the growing number of NPLs. CreditInfo recommends that lenders should employ innovation to stay profitable.

Frequent mistakes and challenges that lenders make include:
- Reliance on Income/Affordability to set Limits, especially Non-Verified
- Retaining a "banking" not "retail credit" mentality and process to credit.

- Ability to understand high default rates within a banking environment.
- Marketing and Credit working together to Adapt the product to suit the risk profile.
- Flexible Decision Engine and Policy to change rules/scorecard/limits quickly and run Champion/Challenger Limit.
- Policy Process to change rules/scorecard/limits quickly and run Champion/Challenger Limit.
- Too high limits or loan term initially or too quickly
- Consider the losses on the first loan as "sales cost"
- Trying to accommodate different segments in the same product
- Managing Reductions in Limits as well as increases
- Need for strong marketing on the follow-up loans
- Avoiding Fraud as rules become "common knowledge" amongst fraudsters

CreditInfo invested US$ 1.1m seed capital in Alternative Circle, a Kenyan start-up that has developed Shika, an Android App powered by the CreditInfo Decision Platform that enables individuals' access to credit through their mobile phones. Shika App enables:

- Innovative solution which takes data from multiple data sources to make a holistic decision
- Mobile meta data scoring mechanism powered by Decision Engine
- Tiered risk-based lending approach
- Mobile KYC solution using mobile network operator data, national registry and credit history

Lessons learnt when developing the app:

- API fraud and gaming fraud can be understood and tamed.
- Engine Rules updated to improve Credit Scores/User segmentation.
- Repayment System changed and moved to new APP & Architecture/Infrastructure.
- Optimized collection system implemented
- KYC verification solved and multiple accounts and SIM Swapping not possible.
- App Infrastructure removed old security loopholes.

2.5   Session V: Africa's unique fintech challenges (Fraud risks in fintechs)

Fidelis Muia, KBA's Director – Technical Services, moderated this session in which

John Kamau, Associate Director - Forensics, PWC focussed on PWC's Global economic crime survey, while **Willie Wanyeki,** Business Development Director – Africa, Myriad Connect and **Billy Owino,** CEO, TransUnion discussed fraud incidence & protecting the Kenyan credit services consumer and various credit bureau perspectives on fraud risk mitigation.

2.5.1 Global Economic crime survey 2018 results

As part of PWC's biennial global economic crime surveys, the 2018 survey had 7,200 respondents from all over the world, 49% of whom had suffered an economic crime in the form of Asset misappropriation (45%); Cybercrime (31%) and Fraud committed by the consumer (29%).

In Kenya, 75% of respondents from all sectors indicated that they had suffered an economic crime. In the financial services sector, 89% of respondents indicated that they had suffered an economic crime. The most prevalent committed economic crime is committed by the consumer, at 65%. Cybercrime came second with 3 in 5 Kenyan respondents in the financial services sector indicating that they expect cybercrime to be leading economic crime in the next 2 years. 20% of Respondents also indicated that they lost more than US$ 1million to their most disruptive economic crime. 3% lost more than KShs 500 million and more than 40% lost KShs 10 million to economic related crimes.

The Fintech evolution will affect the way economic crimes occur, are detected and investigated due to shorter period available to validate transactions, reduced contact between borrowers and lenders, quicker, easier access to ever growing data, increased transactions frequency and value and mushrooming number of players, channels and products.

The three ways of eliminating economic related crime are:

- Enhanced fraud detection at the individual financial services company
- Enhanced vendor due diligence and monitoring of third-party activities
- Fraud intelligence and insights sharing by industry e.g. the United Kingdom which has been able to stop UK£ 6.40 out of every UK£ 10 attempted economic crime.

2.5.2 Fraud incidence & protecting the Kenyan credit services consumer

Myriad Connect, established in 2001, provides core network platforms for MNOs, fraud detection etc. Myriad Connect Survey revealed that 70.6% of Kenyans have been victims or know a victim of financial transaction fraud. Fintech adoption has driven financial inclusion, but has demonstrated increased vulnerability to hackers.

- Every 15 seconds someone in the UK is defrauded
- €1.8 BILLION card fraud losses in Europe
- 22% increase in United States online fraud attempts
- Brazil: BZL 70 BILLION lost to online fraud & scams

Fig 14. Communication channels used to target victims of financial services fraud
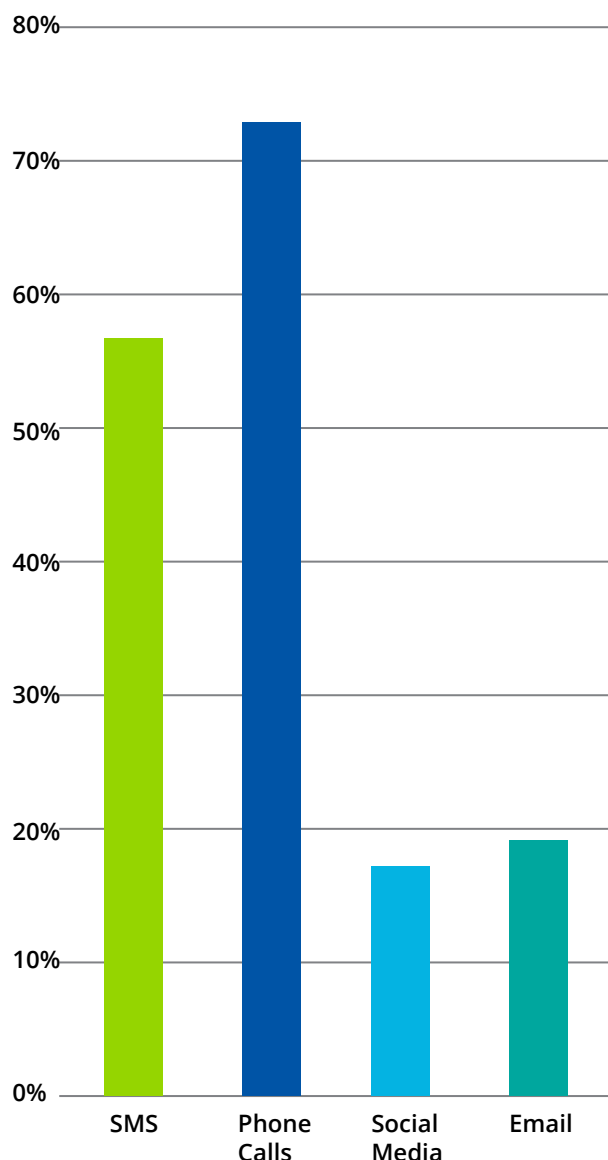
SIM Swap occurs when a customer informs their operator that their SIM card is damaged, lost or stolen. After deactivation, a new SIM is issued. Criminal groups gather personal data and then pose as contract owners to secure a new SIM. Once activated by the fraudster, bank accounts are accessed and other sensitive data authenticated through the SIM.

74% of financial institutions in Kenya use one-time-password (OTP) via SMS. 57% of consumers say they have been victims of SMS-phishing. US National Institute of Standards and Technology (NIST) issued guidance finding SMS insecure and no longer suitable as a strong authentication mechanism.

Challenges for securing transactions for the credit industry in Kenya include:

- High adoption of digital credit services, which presents criminals with fraud opportunities
- Identification of inclusive technology, to protect all consumers irrespective of device or data connection
- Insider threat: 70% of Kenyan financial services leaders identified that fraud is frequently committed by a compromised insider
- Security across all channels: web, mobile app, USSD, via agents

2.5.3 Credit Bureau perspectives on Fraud

65% (6.5 million) of the most credit active Kenyans (10 million) have taken digital credit yet 54% of the 6.5 million individuals are negatively listed. TransUnion serves 100 customers a day however 15% of these customers would like issues of fraud resolved.

On average, about 110,000 digital loans are disbursed every day, implying an average of 300,000 loan originations daily. TransUnion has identified three different types of fraud: (i) Stolen phone where lending app is accessed and a sim card is registered using lost identification and loan is taken; (ii) Synthetic identity fraud to take digital credit; (iii) Loans stuck in fraud; and (iv) fraudulent digital lenders e.g. the 6 fake Apps that mirror the Tala App on the Google PlayStore.

4 Comments, question and answers (create special box for this section)

Issue 1: Are there efforts to enable Kenyans

know they are entitled to a free credit report every year in order for them to identify fraudulent loans? Can the CRBs proactively be sending alerts to consumers when a loan is accessed?

CIS Kenya has been at the forefront at driving consumer awareness however more needs to be done. TransUnion has set up an App and if downloaded the consumer will be alerted if there is any activity linked to any credit transaction carried out.

Issue 2: Is there any effort to stop fraud on digital platforms?

Myriad Connect wants to sit between Fintechs/banks and the telco as an umpire to strengthen automation and consumer protection. Lenders are looking at how much it would cost to invest in systems to prevent/investigate fraud vis a vis returning money to victims of fraud. Police investigation into fraud and prosecutions are rarely successful, hence the need for partnership between the public and the private sector to ensure consumer protection.

Issue 3: How much has machine learning and artificial intelligence (AI) helped reduce fraud in Kenya?

Machine learning's contribution to reduce fraud has not been quantified. Many countries are moving towards having one financial fraud intelligence unit. Many of PWC clients in Kenya are still using the rule-based systems. Only a few of the big credit providers are beginning to consider behavioural-based systems.

Issue 4: Can we be able to match or map different identity documents to show it's the same borrower?

TransUnion runs its algorithm to identify any matches to any other identity document when data is submitted by a credit provider. Is it where it should be? Definitely not. 2 weeks ago, a meeting with the Integrated Population Registration System (IPRS) department revealed that they have digitized the ID data and now have access to the passport data. In a month's time, it's expected that driving licence data and Kenya Revenue Authority (KRA) PIN data will also be integrated. The capability is there but CRBs have to run a manual process when the other unique identifiers come through.

Issue 5: How secure are virtual private networks (VPNs)/Cloud services?

Some are secure and others are not, which speaks to the need to develop standards by regulators and industry. You need to be careful which VPN you choose to use. From a fintech perspective, use of a VPN could be a red flag.

Issue 6: Is there case for regulatory involvement due to the fraud cases affecting fintechs?

We need to protect easily accessible public sources of data such as the Independent Electoral and Boundaries Commission (IEBC). There is a National Payments Systems Act which allows the CBK to regulate players involved in payments. In addition, the National Treasury has formulated the Financial Market Conduct Bill 2018 to address issues surrounding the establishment of uniform practices and standards in relation to the conduct of providers of financial products and financial services.

Issue 7: Can MNOs be put to task to ensure accuracy of sim card registration to reduce fraudsters targeting fintechs?

There is nothing illegal about having multiple sim cards as long as they are properly registered. KBA held meeting with Safaricom and expressed concern on sim swaps. Stop gap measures introduced by Safaricom to alert a bank if a phone has been used and there is a sim swap. The bank can then flag transactions carried out on the sim until the bank has a chance to contact the customer to verify genuineness of the sim swap.

2.6   Session VI: The dilemma of protecting the borrower

Bernard Otieno, Partner, Otieno & Amisi Advocates, moderated the session on potential scaling of alternative dispute resolution (ADR) mechanisms in the digital lending space which has faced unprecedented volumes of disputes. Issues such as breach of privacy, modification of contracts, and lack of disclosure and lender reluctance to issue a contract over text messages are prevalent. **Justice Fred Ochieng** gave a key-note address while **Hannah Ndarwa,** Head of Legal and Human Resources, CIS Kenya and Registrar of Tatua Centre focussed on achievements of the ADR Center.

Bernard observed that consumer protection is an integral part of the credit reporting system. In the World Bank Group's General Principles for Credit Reporting, the public policy objectives for credit reporting systems state that *"Credit reporting systems should effectively support the sound and fair extension of credit in an economy as the foundation for robust and competitive credit markets. To this end, credit reporting systems should be safe and efficient, and fully supportive of data subjects and consumer rights".* In addition, its fourth principle states that *"The overall legal and regulatory framework for credit reporting should be clear, predictable, non-discriminatory, proportionate and supportive of data subject and consumer rights. The legal and regulatory framework should include effective judicial or extrajudicial dispute resolution mechanisms".*

The Kenyan legal system provides consumer protection in CIS. Article 46 of the Constitution provides consumers the right— (a) to goods and services of reasonable quality; (b) to the information necessary for them to gain full benefit from goods and services; (c) to the protection of their health, safety, and economic interests; and (d) to compensation for loss or injury arising from defects in goods or services. The Consumer Protection Act which provides under s31(1) that *"Before a consumer enters into an internet agreement, the supplier shall disclose the prescribed information to the consumer"* which directly affects fintechs. The Banking Act, Microfinance Act and the SACCO Societies Act also offer various protections to the consumer.

2.6.1   Perspectives from the Judiciary

Justice Fred Ochieng noted the CBK Governor's call for enhanced transparency and responsiveness to consumer demands and needs. When financial providers engage with borrowers there is need for understandable and reliable methods and systems. Kenya's very progressive Constitution does not give the answers we need for everything. Credit providers face the dilemma in the quest to make profits and grow digital lending while at the same time to purport to want to provide protection to the consumer. The dilemma facing the financial services sector is how to both make profits while still protecting the consumer.

When FSPs submit default information of small amounts to the CRBs a vicious cycle of over indebtedness may arise. Whose fault is it? In digital lending, do the borrowers get to

understand terms and conditions? The more the number of those who are 'blacklisted' the fewer the number of those who are available for FSPs to entice. You actually need to protect the borrower as it's in your best interest and everyone's best interest to do so.

Digital lending leverages on technology. Are borrower assessments accessible and non-discriminatory? I have heard of people who will borrow while having a drink at a bar without the capacity to engage in a borrowing contract. The FSP has no idea what I have borrowed the money for and did it while inebriated. Do I have an obligation to pay? The law states that the bar attendant has a responsibility over the inebriated person to not continue serving him/her but the FSP can lend to him/her and try to recover. With rampant identity theft and cyber-crime, who is the real client?

I therefore suggest the following measures for the regulators:

a.   Institute strong data sharing regulations
b.   Code of conduct for the CRBs
c.   Super CRB –Data hub
d.   Give borrower power to pre-empt information before it gets to the bureau

2.6.2   Tatua Center

  Tatua Centre tries to resolve CRB related disputes through ADR by listening to disputants who have erroneous information that has been shared about them and offering the link between the credit provider, the CRB and the disputing borrower.

Hannah Karuri, Registrar Tatua Center

We have done a lot of awareness creation within the constraints of limited budgets. A lot of court cases alleging erroneous data in CRBs have been dismissed for failure by disputants to exhaust process outlined in CRB regulations. Tatua Center, established in 2015, educates consumers and helps reduce the costs associated with heading to court.

The major causes of disputes just to highlight a few include: (i) non-responsiveness of lenders (21%); (ii) disputed debt amount; (iii) lack of pre-listing notices by credit providers; (iv) issues of fraud.

Table 8. Disputes handled by Tatua Centre

Year	Total number of disputes	Disputes from digital platforms
2015	153	4
2016	214	8
2017	208	21
2018	294	40

Digital lending disputes received at Tatua Center mostly relate to identity theft. Mobile phone lines are registered against lost IDs and then borrowing is done from different platforms. There is little help to give on fraud matters beyond referring disputants to the Police. Some of the frustrated consumers opt to clear the debt in order to minimise the damage caused to their credit history.

2.6.3   Comments, questions and answers

Issue 1: How do we consolidate the various dispute resolutions mechanisms in the country?

The Honourable Chief Justice has set up an ADR taskforce to harmonise activities of different ADR actors. Courts are actively promoting mediation and after assessment, are sending parties to mediators funded by the judiciary, at no extra cost to the parties. The judiciary also recognises alternative justice systems applied in community settings for both civil and, to some extent, criminal matters.

Issue 2: Digitization is the way forward. Is it possible to have legislation that allows use of biometrics, e-signatures etc, and to have one unique identifier such as Rwanda which has adopted a chip card.

The law already recognises e-commerce

Participants following the conference proceedings

signatures and e-contracts. It is not quite clear if such systems predispose parties to increased fraud risk. Clarity is also needed in definition of e-signature as it can be your signature in an electronic form or be in a digitized form.

Issue3: Is there collaboration between regulators to improve legislation on CIS and ID theft?

CIS legislation is fragmented and enforced by different financial sector regulators. The CBK enforces the CIS regulations for commercial banks and microfinance banks while SASRA enforces for the SACCO sector. Policy discussions around the MCB will address these concerns. On identity theft, Tatua Centre is collaborating with the Kenya Human Rights Council (KHRC) and telcos to get a way out of this issue.

Issue 4: Have financial institutions been given a free will when it comes to responsiveness?

The law defines response timelines and obligates CRBs to delete disputed information when the lender does not respond in time. Unfortunately some lenders re-submit the same information and the frustrated customer complains to Tatua Center. This is a compliance issue.

2.7 Session VII: Key Note Perspectives around Data.

Mark Kaigwa, CEO of Nendo began by

quoting Satya Nadella, CEO, Microsoft: 'We are moving from a world where computing power was scarce to a place where it now is almost limitless. The true scarce commodity is increasingly, human attention.' The illiterates of the 21st Century will not be those who cannot read and write but those who cannot learn, unlearn and relearn" – Alvin Toffler.

Fig 15. – Gartner hype cycle of emerging technologies

There are evolving channels and evolving customers. Data sources include:

- Enterprise data – Sources include call transcripts, support tickets, CRM data etc. Good for uncovering trends and patterns within customer communications;
- Social media data– Sources include Twitter, Facebook, Instagram, Tumblr, Reddit posts etc. Good for analysing real time consumer conversations about anything; collecting unsolicited campaign and product reactions; and identifying consumer trends and preferences.
- Pubic online data – Sources include reviews, news, blogs, forums, annual reports, financial statements etc. Good for tapping into reviews and forums for targeted insights; understanding the news coverage around your brand and product; and providing demographic insights at an industry level.

9- Social media numbers in Kenya

Social media platform	Numbers in Kenya
Facebook	8,100,000 users
Twitter	74,379,882 unique tweets

Fig 16. Service: Past, present and future

Fig 17 - The growth of instant messaging
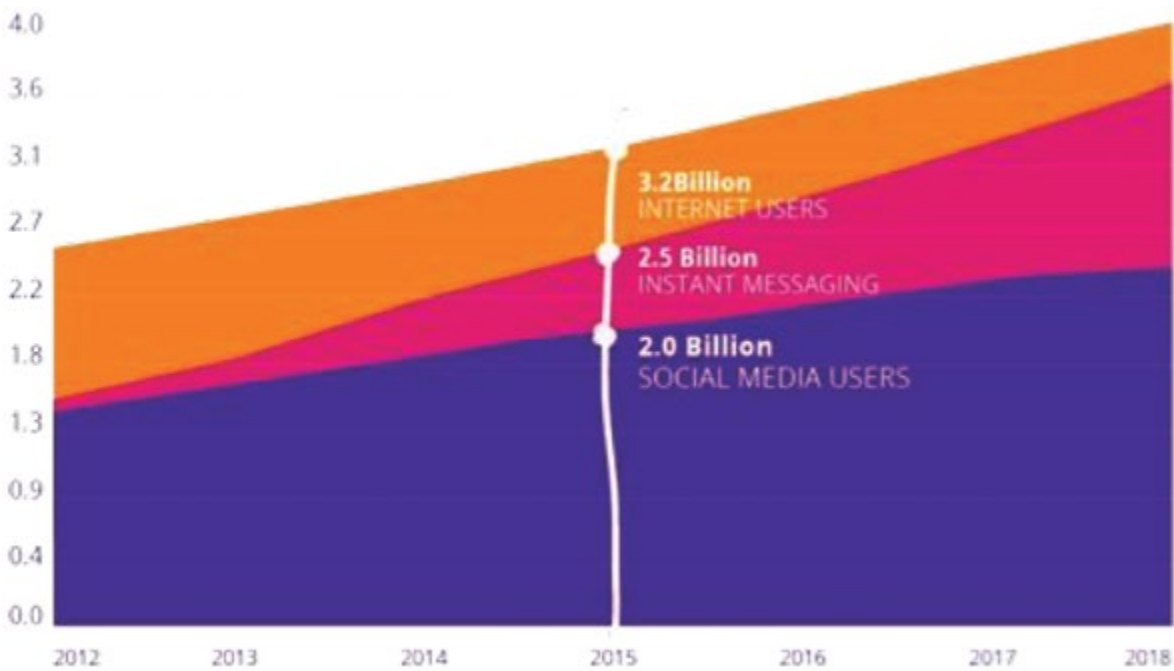
Table 10. Top websites and Mobile Apps in Kenya

Websites	MObile Apps
Google	Opera news
Facebook	WhatsApp
YouTube	Okash
Betin	Tala
Sportspesa	Facebook lite
Xvideos.com	Timiza
Xnxx.com	Branch
Betpawa.com	Facebook messenger
Googleweblight.com	Aliexpress
Twitter.com	Safaricom app

Social Customers, Social Banks?

Nendo analysed Facebook data in May 2017 (11,725 comments) to understand how fast banks were resolving consumer complaints. Metrics used include response rate and response time.

Table 11. Bank response rate in May 2017

Bank	Response rate
Equity Bank	99.83%
Barclays Bank	94.03%
Co-op Bank	81.34%
KCB	33.88%
StanChart	21.12%
CBA	18.75%

2.8 Session VIII: Fintechs in Kenya: To be or not to be regulated

Tim Mukata, Digital Innovations Consultant sought to explain how digital lenders' products and services are designed and delivered, their target markets, their business, monetization models and the rationale behind them; and how the proposed Financial Markets Conduct Bill (FiMC) and data protection bill will impact their business.

Understanding fintechs' business in the existing unregulated regime sets the context for understanding the proposed regulated regime. A phone survey of a few selected digital credit providers was undertaken and results fitted into a 4 fit canvas tool.

2.8.1 Current non-regulated market: Existing product design, service delivery, target market, business and monetization models

The market

90% of Kenyans earn KShs 30,000 or less. Social influences impact disposable income and affect the borrower stability. Ability to repay reduces as the loan ticket size increases.

Table 12. The Kenyan credit market

Description	Value	Comments
Income	90% earn less than Kes30,000 monthly	Microloans form a substantial portion of income
Ability to repay (ATR)	Reduces as % of loan/income (DTI) increases	*Providers mostly do not conduct full KYC
Stability of income / disposable income	Highly variable	Social influences, gaps in employment, probability of continued employment, frequency of job changes
Digital footprint	Low	Online social behaviour not very reliable in determining real life (non-digital) financial behaviour
Demography	21 – 40 years	Mostly attracted to instant gratification

Table 13. Income groups in Kenya

Income Group	%	N
Kes0 – 15,000	75.4	15,639,840
Kes15,001 – 30,000	14.9	3,083,724
Kes30,001 – 100,000	8.4	1,747,622
Above Kes100,000	1.4	290,320
Total	100	20,761,506

The Product

The digital loan products in the market have the following characteristics:

· **5% - 25%** interest rate / facilitation fee
· **5% - 25%** penalty / roll-over fee
· **Access, instant, convenience and less pain** are the biggest selling points

Table 14. Digital loan product characteristics

Description	Value	Comments
Interest rate / facilitation fee	5% - 25% per month	
Tenor	Days, weeks to 1 month	Rarely more than 1 month
Nature of product	Instant, few minutes	
Period for bad debt	After 60 days	5% - 25% for late repayment / rollover fee
Selling point	Access, instant, convenient, stress free	

The channel

The Mobile Apps and Unstructured Supplementary Service Data (USSD) are the most used channels by digital lenders.

Table 15. Channels used by digital lenders

Description	Value	Comments
User Interface	Mobile Apps, USSD	Downloading of app, online registration, access to personal data requested
Disbursement mechanism	M-Pesa, M-Shwari, bank account	Fee for paying to wallet / account applies
Repayment mechanism	M-Pesa, M-Shwari, bank account	Fee for paying to wallet / account applies
Advertising	SMS, Social media, In-App messaging, WOM	Includes call to action (CTA) prompting

The model

Credit scoring does not translate to high trust at the top of the funnel. **Risk Premiums** still apply to repeat good repayers.

Table 16. Digital loan product characteristics

Description	Value	Comments
Credit scoring	Social data, M-Pesa transactions	Digital footprint is limited. High risk for a new borrower
Trust	Low at entry point. Increases based on performance	Lender has to borrow & repay repeatedly to increase their credit score, increasing their credit limits
Risk Premiums	Applied uniformly across all customers	The good repayers end up paying for the bad debtors
Profit model	Probability that the aggregate of fees collected will cover for the bad debts & all associate costs	

The market – product fit

Market's relative income too low for the loans offered. Loans too large for a good chunk of the market to repay without stress.

The model -market fit

Critical mass target for the provider to have enough performing loans as a constant. AARPU a critical metric (more than LTV). Maximize retention and increase credit limits of good payers. Market lacks the financial muscle and stability to support this model.

The product -channel fit

Digital channel for advertising, on-boarding, disbursement, repayment and communication. Advertising has strong inducement component. Important in driving as many potentials through the funnel as possible. Inducement can be strong (nudges, testimonials) or subtle (new [higher] credit limit on profile page). Drive as many potentials as possible through the funnel. Filter the good payers from the bad as quickly as possible, through repeated loan cycles. Increase engagement of the good payers through high interactivity.

2.8.2 Proposed regulated regime - How the existing product design, service delivery, target market, business and monetization models will be impacted

The proposed law will have the highest impact on contracting, advertising and pricing for the digital lenders. This presents an opportunity for changing and adapting. That's what innovation is all about!

Fig 18. 4 fit canvas proposed changes
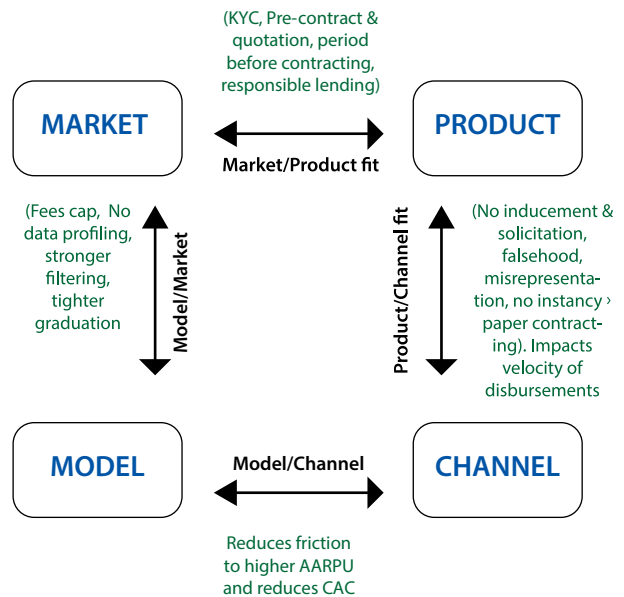
2.9 Session IX: Data protection in Africa: Where are we? Panel discussion

Daniel Obam, HSC, National Communications Secretariat made a presentation on 'Importance of a Strong Data Protection Framework in Kenya', while Jeanine Naude -Viljoen – General Counsel, TransUnion South Africa focused on data protection in Africa:

2.9.1 Existing Framework for Data Protection in Kenya

Article 31 of The Constitution of Kenya states that every person has the right to privacy, which includes the right not to have— (a) their person, home or property searched; (b) their possessions seized. Article 35 of the Kenyan constitution states that (1) Every citizen has the right of access to—(a) information held by the State; and (b) information held by another person and required for the exercise or protection of any right or fundamental freedom.

Lack of a centralised framework for data protection subjects CIS Kenya current and potential members (banking, microfinance, insurance, telecommunications, retail, hire-purchase, lease, credit reference bureaus, public utilities etc) to varying compliance requirements by various agencies, including:

- Registrar of Companies
- National Police Service
- National Registration Bureau
- Integrated Population Registration System Department (IPRS)
- Central Bank of Kenya
- Kenya Revenue Authority
- Capital Markets Authority
- Unclaimed Financial Assets Authority
- Communications Authority of Kenya
- Insurance Regulatory Authority
- Sacco Societies Regulatory Authority
- Kenya National Commission on Human Rights

Data Protection and Credit Information Sharing

CIS provides critical information and insights to institutions, customers and other stakeholders for identifying high risk customers and recovery of previously defaulted debt. Some issues with CIS:

- Inaccurate or incomplete data submissions.
- Information and advice to customers on adverse listing.
- Black-listing and profiling of customers based on listing.

The CRB Regulations, 2013 provide a limited framework for data protection. There is opportunity/need for a comprehensive policy and regulatory framework for privacy and data protection in Kenya.

Proposed Privacy and Data Protection Framework

The Cabinet Secretary, ICT through Gazette Notice Number 4367 of 11th May 2018, constituted a Taskforce to develop the Policy and Regulatory Framework for Privacy and Data Protection in Kenya to define requirements for the protection of Personal Data. The proposed draft Policy and Bill can be accessed at http://www.ict.go.ke/request-for-comments-on-the-proposed-privacy-and-data-protection-policy-and-bill-2018

Some Key Terms Used

- Data subjects - such as customers, both current and potential
- Data controllers and Data processors
- Personal data, such as customer information
- Sensitive personal data - 'data revealing person's status' i.e. Location, financial expenditures
- Consent - Any **voluntary, specific** and **informed** expression of will of a data subject to process personal data
- Data Commissioner - State Office under MoICT
- Data Protection Officer - designated/appointed by data controller/data processor.

Key policy principles

- Fairness, lawfulness and transparency
- Purpose Limitation
- Data Minimisation
- Storage Limitation
- Accuracy
- Confidentiality and Integrity
- Accountability

Legal principles

Every data controller or data processor **shall** ensure that personal data is–

- Processed in accordance of the right of privacy of the data subject;
- Processed lawfully, fairly and in a transparent manner in relation to any data subject;
- Collected for explicit, specified and legitimate purposes and not further processed in a manner incompatible with those purposes;
- Adequate, relevant, limited to what is necessary in relation to the purposes for which it is processed;
- Accurate and, where necessary, kept up to date, with every reasonable step being taken to ensure that any inaccurate personal data are erased or rectified without delay;
- Kept in a form which identifies the data subjects for no longer than is necessary for the purposes which it was collected;
- Only released to a third party only with the consent of the data subject;
- Not transferred outside Kenya, unless there is adequate proof of adequate data protection laws by the recipient country.

Scope of Application

All processing of personal data i.e. collecting, recording, organising, structuring, storing, adapting, altering, retrieving, consulting, using, disclosing, aligning, combining, destroying, restricting or erasing, whether or not by automated means. All data controllers and data processors who – either established or resident in Kenya or use equipment in Kenya for processing personal data, other than for the purpose of transit through Kenya.

Rights of Data Subjects

- To be informed of the use to which their personal data is to be put; i.e. including withdrawal of consent, effects of automated individual decision making
- Access their personal data in custody of data controller or data processor; e.g. data portability
- Object to the collection or processing of all or part of their personal data; e.g. for direct marketing purposes
- Correction of false or misleading data;
- Deletion of false or misleading data about them i.e. right to be forgotten.
- Appropriate security safeguards for archived data and cross-border transfer of personal data.

Functions of the Data Protection Commissioner

- Establish and maintain a Register of data controllers and data processors.
- Exercise control on all data processing operations, either of own motion or at the request of a data subject and verify whether the processing of data is done in accordance with the law.
- Receive and investigate any complaint by any person on infringements of the rights under the law.
- Carry out inspections of public and private entities with a view to evaluating the processing of personal data.

Obligations of Data Processors

- Application for registration through the Data Protection Commissioner
- Collection and use of personal data in accordance with the law.
- Ensure consent from data subject is specific, informed and freely given.

- Reporting of all personal data breaches

2.9.2 Data protection in Africa Plenary Discussion

TU South Africa is registered under the National Credit Reporting Act which has robust consumer protection and information security requirements. Identity theft in South Africa is rampant and there is always a need to verify identity of the person the bureau is dealing with.

The varied social economic backgrounds in SA pose challenges around language barriers or level of education, which makes conversation on credit reporting difficult. The industry in SA is trying to raise the levels of consumer education such as letting consumers know about eligibility to a free credit report once a year.

Every business deserves the regulation it gets since there must be a gap in business processes. The credit reporting industry has to protect the consumer and remain sustainable. Bureaus in SA are regulated by National Credit Regulator and the Information Regulator. Bureaus should be enablers in the credit market ecosystem as they have links to the regulators, credit providers and consumers.

2.9.3 Comments, questions and answers

Issue 1: People don't know what their data is being used for when it's collected by various private and public sector organizations. We need to raise awareness to the data subjects on how their data may be utilized.

Issue 2: Who else is represented in the Data Protection Taskforce? Who takes responsibility for consumer education?

The taskforce includes Communication Authority of Kenya (Chair), Office of the Attorney General, KLRC, Ministry of ICT, Commission on Administrative Justice (CAJ) and the ICT policy network. The proposed regulator will have primary responsibility on consumer education.

Issue 3: Will the regulations be specific to certain sectors of the economy or to all?

The regulations will address data controllers and processors and it won't matter which sector of the economy they are operating from as they are collecting personal data.

2.10 Session X:
Fin-tech to Tech-fin

Eddie Ndichu, Managing Director, Opera, introduced Opera as a privately-owned consumer Internet company headquartered in Oslo with more than 350 million monthly users across its portfolio of software applications. It is pursuing several new initiatives related to digital content discovery, e-commerce and the facilitation of mobile payments, micro lending, remittances, insurance using new technology such as Blockchain & AI.

FinTech is a space where financial services are delivered through a better user experience using cutting edge technology. Takes the original financial system and improves its technology. TechFin is where a firm that has been delivering technology solutions, launches a new way to deliver Financial services. Rebuilds the system with technology. The entry of technology firms *signals a shift from financial intermediary (FinTech) to data intermediary (TechFin).*
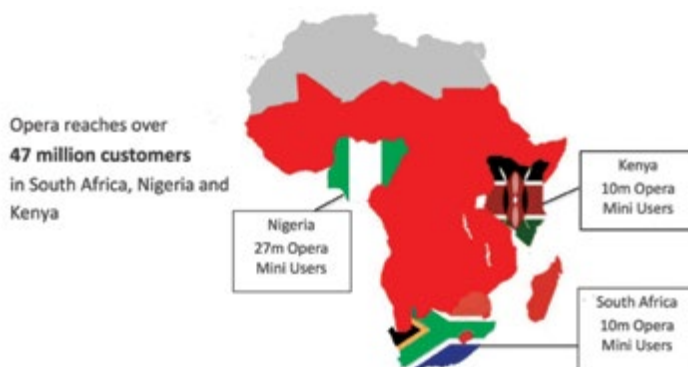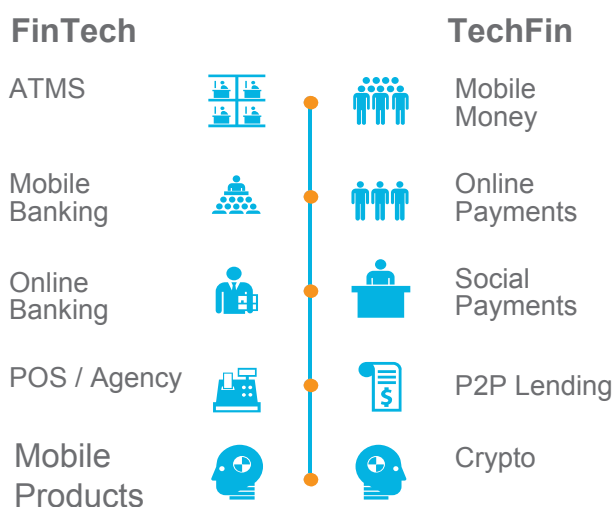
Fig 19. Opera Africa market reach

Opera reaches over **47 million customers** in South Africa, Nigeria and Kenya

Nigeria 27m Opera Mini Users

Kenya 10m Opera Mini Users

South Africa 10m Opera Mini Users

Fig 20. FinTech to TechFin

FinTech			TechFin
ATMS			Mobile Money
Mobile Banking			Online Payments
Online Banking			Social Payments
POS / Agency			P2P Lending
Mobile Products			Crypto

Fig 21. Top six digital lenders in Kenya

Service	Mshwari	KCB M-	Eazzy	M Coop	Tala	Branch
Subscribe	20.1 M	9.8 M	1.6 M	3.3 M	500K	350 K
Total Loan	83.3 M	15.4 M	4.2 M	2.8 M	1.8 M	1.5 M
Total Loan	208 Bn	48.2 Bn	57 Bn	8.7 Bn	3.5 Bn	2 Bn
Loan	8 Bn	2.4 Bn	3.8 Bn	860 Mn	780 Mn	400 Mn
Avg Daily	70K	21K	8.5K	1K	310	190
Fee (MPR)	7.5%	3.66%	3.66%	3.66%	15%	14%
NPL	1.9%	2.9%	3.1%	2.77%	>10%	>10%
Minimum	50	50	100	1000	2000	250
Maximum	100K	100K	3 Mn	100K	50K	50K

2.11 Session XI: Tech enabled lending in Africa

Tamara Cook (moderator), summarised findings of FSD Kenya and CGAP research on demand side perspectives around digital lending in Kenya and Tanzania and thereafter led panellists in a Q&A session. Panellists were Dan Karuga – General Manager, East Africa Branch; Rose Muturi – Country Manager, Tala; Kevin Mutiso – CEO and Co-founder, Alternative Circle; Eddie Ndichu – Managing Director, Opera; Michael Kimani – Chief Marketing Officer, Chamapesa.
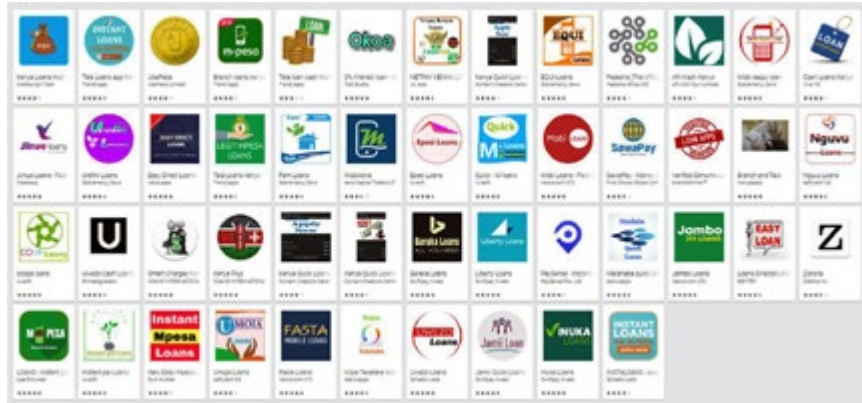
2.11.1 Summary Research Findings

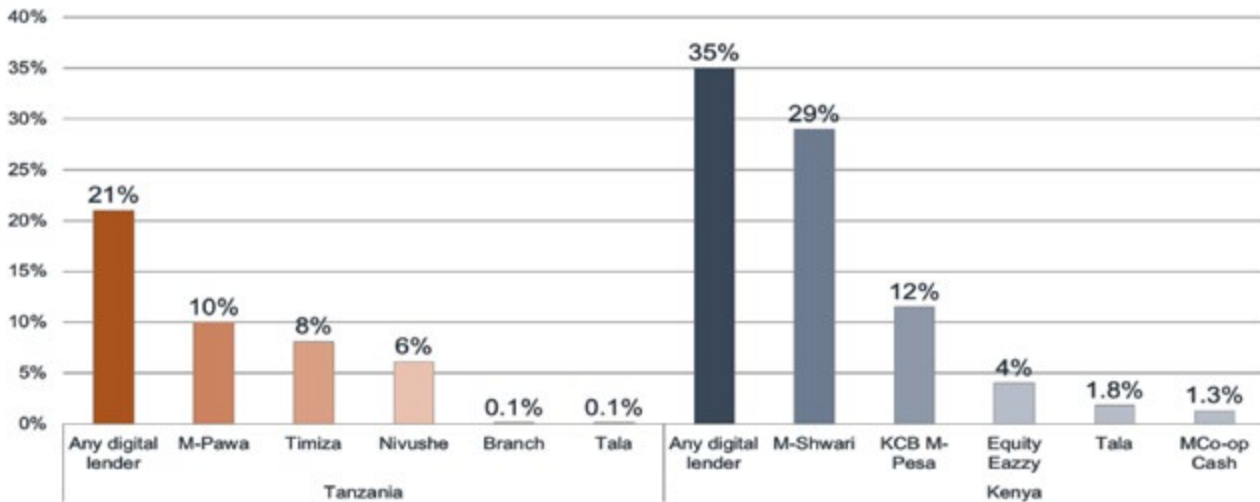Fig 23. Share of mobile phone owners who have borrowed from each lender
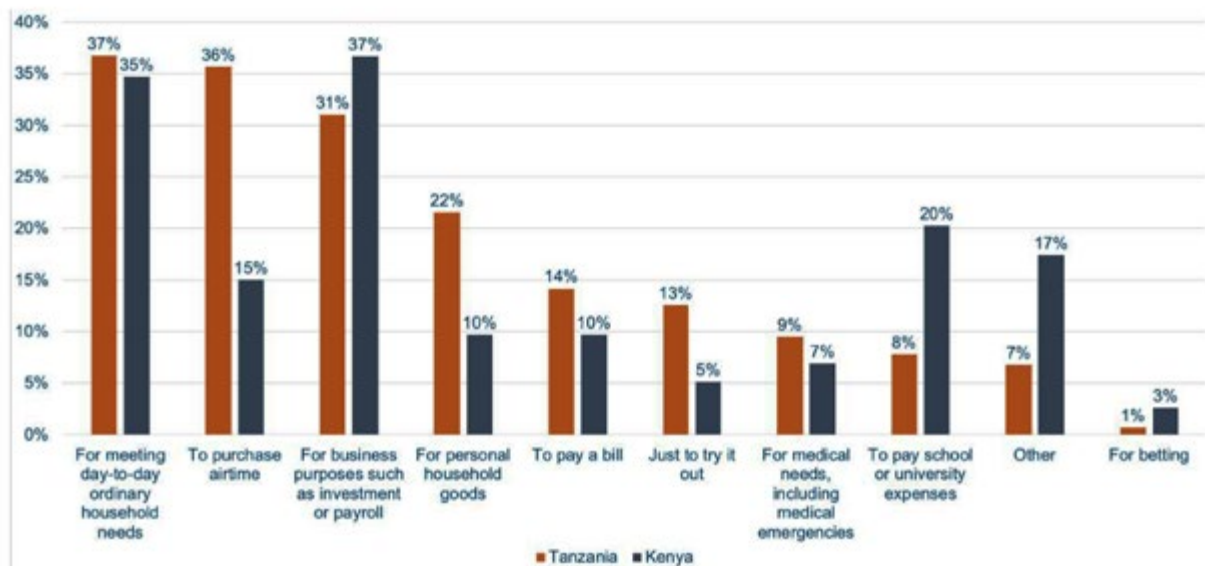

Fig 24. Uses of digital lending

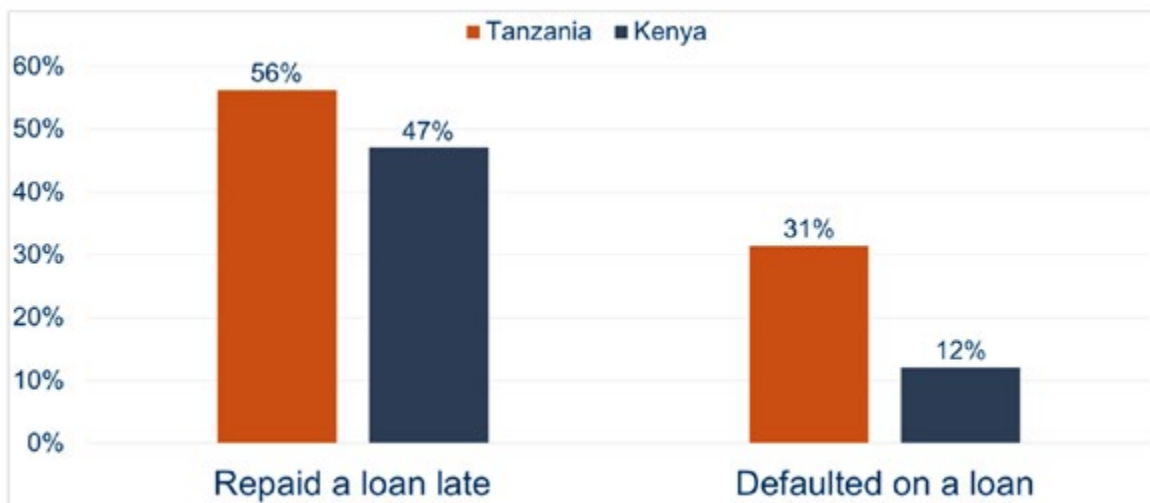Fig 25. Borrowers reporting default of a digital loan

Fig 26. Share of digital borrowers with current loan from each source
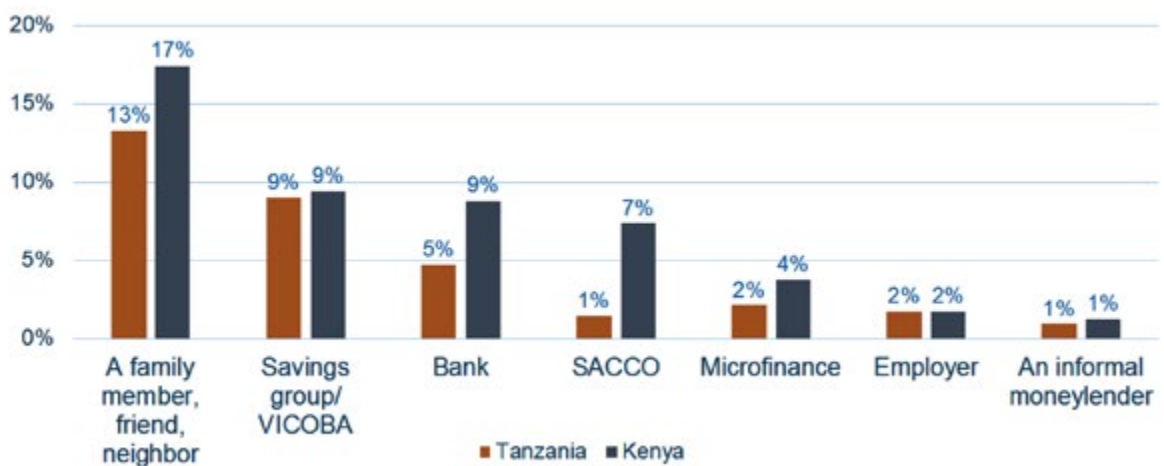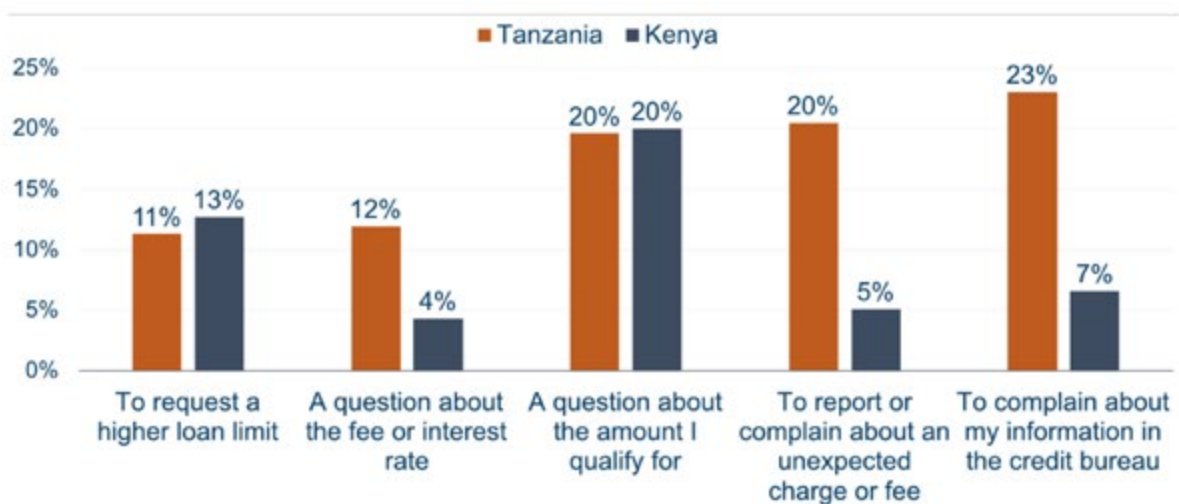

Fig27. Digital borrowers' reasons for contacting customer care

2.11.2 Panel Discussion

Issue 1: How can tech-enabled lenders be disruptive in customer engagement?

The opportunities lie in anticipating the customer needs and tweaking the business model. Tala has created a department that looks into data science and conducts research. This includes thinking about what the customers use the money for. At Alternative Circle, the firm gives credit to customers after determining what they could afford to pay. Chamapesa looks at the customer as part of a group. Individuals form groups by the economic activity they undertake/professions, and this could solve such challenges as: (i) How to price the loan (ii) Ability to repay due to the social consequences of not doing so.

Issue 1 (b): What kind of customer engagement do you have on social media?

Most social media complaints revolve around four areas: non-qualification for facilities applied for; other platforms offering higher limits; slow updating of the CRB for loans repaid after short periods and positive listings misinterpreted by other lenders to suggest default history.

Issue 2: How can digital lenders apply *risk-based credit pricing(RBP)?*

Factors that determine cost of digital loans include: Expensive distribution channels and very short loan terms. RBP is practiced as follows: Shika weights different risks and arrives at a risk profile but because weighting of risk components requires a critical mass of data that has not been accumulated yet, application of RBP will come at a later stage. Branch: Digital lenders, due to availability of data, have an advantage over banks with respect to RBP Branch is finalising preparations to begin applying dynamic pricing in a very short while. Tala: Already applying RBS which reflects in rate applied and amounts that a customer qualifies for.

Issue 3: How can *logical transparency* be enhanced on everything from terms &

conditions to scoring?

Tala has (1) adopted very simple language, (2) placed a specific user agreement in the App, (3) summary follow-up text message to reiterate agreement, (4) follow-up email. Shika: In addition to the 4 factors, customer gets explanation on how they got the loan approval/rejection and how to improve their limit. Branch has adopted Swahili and slang. Opera has entrenched infographics on its App and engages customer as part of its collection model.

Issue 4: How can digital credit be underpinned by a *culture of integrity?*

There is a need for formal regulation to weed out mischievous lenders some of whom have created duplicate Apps. Integrity should also reflect in amount of data collected and how it is used. Customer consent is obtained in layers rather than wholesome. Chamas have a strict code of conduct on how records are handled. Risks of fraud have increased over time. Opera looks at it from (1) Education (you don't have to take a loan because it is available) (2) Protection (Introducing facial recognition identity and voice identity) and (3) Best Practice

Importance of Purpose Lending: 7 out of 10 customers of Branch indicate use loans for working capital. Data from Tala reveals that credit is being used to settle medical bills which clearly shows that the insurance market is broken.

2 Session XII: Machine Learning & Alternative Data in Credit Scoring

Naeem Siddiqi, Director, Credit Scoring and Decisioning, SAS Institute showcased global practices, results of a survey of bankers, and real world issues facing banks when adopting machine learning and alternative data.

Fig 28. The Hype Cycle
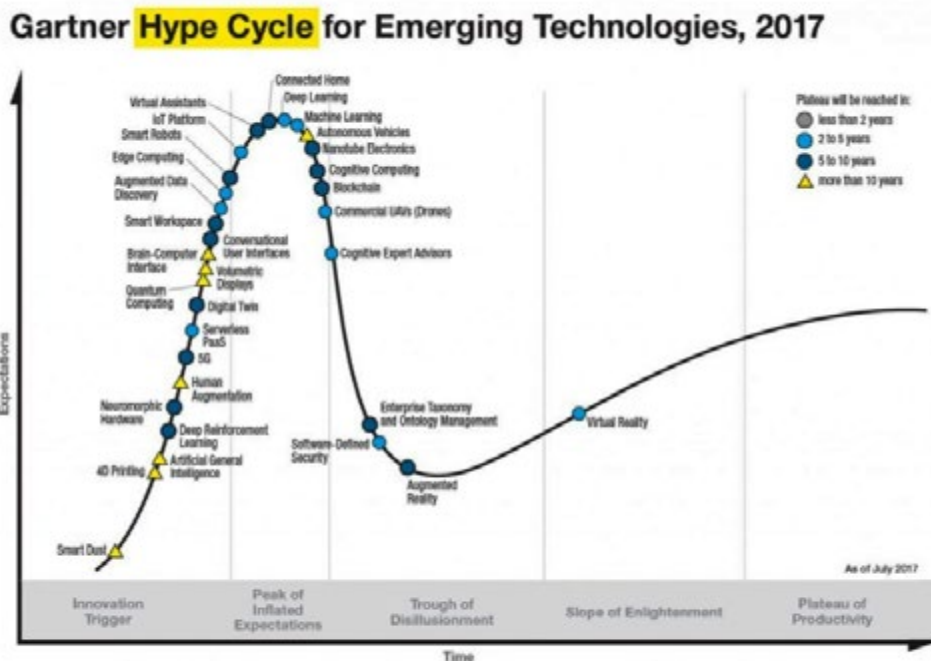
The inflated expectation is highest right now for machine learning.

2.12.1 The Hype Cycle Canadian FIs Survey

Results from survey of 12 Canadian financial institutions (FI's): almost 100% of the FIs confirmed interest in machine learning (ML). 10 FIs indicated actively engaged with the subject while 2 were studying. Regarding usel cases for credit risk/scoring, 4 out of the 12 indicated finding use for ML in credit risk (in originations, collections and behaviour), while the rest did not find use for it in credit scoring models, rather in fraud, automating processes, research for strategies. How much Lift did they get? Lift ranged from 0 to <5%. At least 8 institutions had no plans to use it for loan originations, because of the lack of transparency in the models. The most common algorithims used are Gradient boosting, Random forest, and a few Neural Networks. Almost all of the models in use are supervised, no self-learning models.

The following comments were made by staff of the 12 banks in regard to machine learning:

- We just added complexity, with little benefit
- Current CS problems are simple binary ones, simple solutions are adequate
- Deployment time is so long, the benefits of ML and faster development are reduced

- Even if we wanted to, we couldn't use it because of validation/regulation
- Even if allowed, I don't see us using this because of internal governance
- We think it will be useful in peripheral activities but not in the modelling itself
- Mature market, lots of modelling history means our lifts will be smaller.
- I don't have enough people to analyse all the data and assign causality
- This is new and shiny. Management wants to say we do it even if it doesn't work. AI is not a solution to everything.

The global experience shows that:

- The Big Four machine learning techniques include Gradient Boosting, Neural Networks, Random Forest and SVM
- Countries with less rigorous regulations are heavy adapters
- The use of alternative data is high in some jurisdictions
- Some early adopters have gone back to simpler models/rule based decisioning
- Studies on using alt data with bureau show good lift
- It is the data that matters
- Lift is achieved from additional data and not algorithms
- Mature markets have less lift

Governance issues to be considered include

(i) Interpretability, causality, stability; and (ii) External and internal. The European Union (EU) General Data Protection Regulation (GDPR) states "meaningful information about the logic involved", "the significance and the envisaged consequences" of automated decision-making (Article 13-15) and data subjects are entitled to an explanation of automated decisions after they are made, in addition to being able to challenge those decisions". (Recital 71).

Alternative data consists of (i) Non-bureau payment data: Utilities such as telco, electricity, water and other on-going payments; (ii) Online data such as social media (Facebook, LinkedIn), browsing history, apps, texts, GPS; and (iii) Psychometric which includes surveys and attitudes.

Fig29. Data Privacy and control policies

Cartoon illustrates an important issue. What data, how private, control policies, privacy. Same as any other data but the dangers are higher here.

Fig 30. Sliding scale
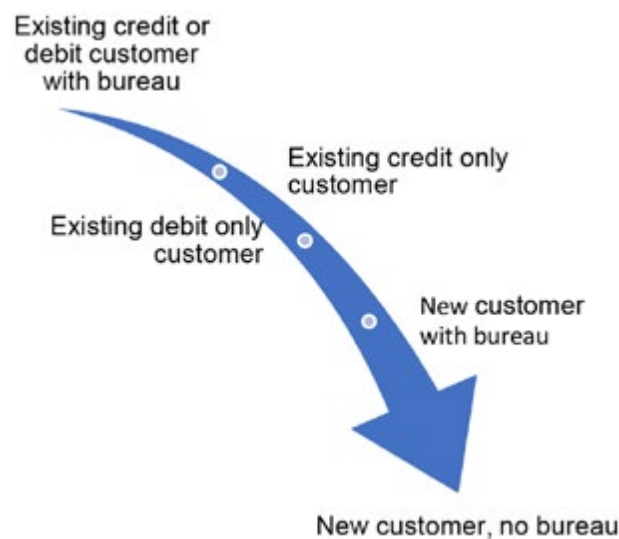
Utility and telco data are useful and relevant because it shows habit of paying small amounts regularly and can be used to give micro loans, credit cards with smaller limits which builds loyalty. Cell phone usage data such as tops ups, payments, apps, data/voice usage patterns, browsing history, address changes, geo location, content of text messages, mobile payments, other products like cable/DSL can be used for credit card offers, micro loans and offers for post-paid plans.

Machine Learning has already been useful in many areas. Wider use in credit scoring will depend on regulatory attitudes. The principles of lending and risk management will not change. Getting utility and telco data into bureaus will help more than online data. Big Data issues will continue. Public opinion/attitudes, especially among Millennials will change. Privacy laws usually follow. More studies and hard evidence on ML will help. Banks will need to establish data structures, policies, skill set and governance to deal with ML and use of alternative data

2.12.2 Comments, questions and answers

Issue 1 : What are your thoughts on psychometric scoring? Is there a high level of confidence?

Very few independent studies show that it has a high level of confidence. World Bank study show that psychometric scoring is only effective if combined by credit bureau data.

2.13 Ramifications Of Emerging Data Analytics Technologies In The Credit Information Sharing Ecosystem

This Presentation Was Made By Timothy Oriedo, Head of Data Science Unit at Metropol CRB LTD.

The session began by listing the primary uses of data:
1. Innovation of products,
2. Aiding in management decisions
3. Direct Monetization where data is of value.

Currently the principle that makes CIS relevant for various market players is data monetization and is proving to be lucrative for even non-traditional utilizers of CIS data. Ecommerce companies like Alibaba are deploying analytics that factor in CIS.

2.13.1 Trends and Opportunities in CIS

Of the 5Cs considered in credit worthiness assessment, character is the most difficult quantify but CIS data analytics can aid in this especially in the era of risk based modelling. However, before getting into prediction analytics, the foundational steps of digitization must be put in place appropriately. Digitization can happen through creating digital products, digitizing processes and utilizing digital channels.

Challenges that have been overcome through digitization so far are:
• Generating data: digitization spontaneously generates data
• Storage: distributed computing and cloud storage are replacing in-house storage capacities
• Use of unstructured data: before digitization, it wasn't possible to capture biometric, audio, video data types. With digitization, it is possible

The nature of unstructured data provides the competitive edge because it has given rise to correlation analytics which facilitates effective scoring of character. An example of this phenomenon is: Dynamic pricing at points of sale can be enriched by health information and social media trails contributing to accurately quantifying character in risk assessment and therefore pricing.

2.13.2 Considerations when venturing into analytics

To ensure full maturation into data analytics it is essential to have:
A strategy consisting of a sound algorithm, designed by competent data scientists and rich data whereby rich data consists of:
• Unstructured data: video/audio data e.g voice recognition data which curbs fraud
• Semi structured data: a mix of text and numerical data like those on social media
• Structured data: what is currently used dominantly in CIS by database systems
• Open source data: e.g GDP data, inflation data e.t.c which the government is currently providing.

Other considerations include:
Data shouldn't be collected in-masse without factoring in data protection principles.
Having systems that can accommodate real-time processing as opposed to batch processing. This will lead to more accurate predictions

2.13.3 Types of analytics available

Data generation analytics
Text analytics: words and phrases on social media which can be used for character assessment
Sentiment analytics: positive or negative measures for opinion assessment
Image analytics: pattern recognition, digital geometry, location intelligence
Voice and video analytics: robotic process automation e.g at the customer care points

Mining analytics
Regression analytics and neural networks are the most common types of mining analytics used and they should be powered by algorithms with correct datasets which effectively reduces false positives and negatives.

2.13.4 Who do you need to do data analytics?

Data architects: those who handle the infrastructure, Data analysts, those who do the modelling and finally, the new entrant data scientist, an emerging hybrid whose role is evolving.

2.13.5 Conclusion

CIS can be the driving force for other industries but it is crucial to establish synergies that utilize and monetize data more effectively.

📋 4: Convergence of data to influence SME lending

Although digital finance has disrupted the financing landscape particularly in urban and per-urban areas, rural clients and SME's are yet to experience this kind of 'disruption' largely due to lack of information –'information asymmetry. This session, moderated by **John Amimo,** Programme Coordinator at AFRACA, sought to demonstrate inroads made by fintechs in the SME space generally, and in the agricultural sector more specifically. A keynote address was made by **David Cracknell,** Global Technical Director, MicroSave, while **Raphael Kuria,** Head of Agribusiness- MESPT, **Antony Kanika,** Operations Officer, East Africa Farmer Federation and **Naomi Ndele,** Head of SME & Agribusiness- Kenya Commercial Bank Group participated in the panel discussion.

In his key-note address, David sought to demonstrate that SME lending is changing fundamentally due to use of data, but this rapid change is more around HOW we lend rather than WHO we lend and HOW MUCH.

Naomi highlighted on the MobiGrow program recently launched by KCB Group in collaboration with Mastercard Foundation, which seeks to reach 2 million smallholder farmers in Kenya and Rwanda, targeting mostly women and youth. It has a two-pronged agenda: a financial inclusion goal through which farmers will use technology to open a basic account using a feature phone. The most significant challenge here is to identify the real owner in an environment where phones are shared. The second agenda supports financial literacy on good farming practices. The challenges here include cultural barriers against women empowerment, farmer mobilization into groups against competing interests, swim swap fraud and money laundering risks.

Raphael stressed that information-based lending is achievable in an environment where

SMEs face significant lack of credit access. Use of data helps in segmentation and product development. Positive data is important for credit scoring and risk-based pricing. This needs to be complemented with partnerships such as promoting Credit Guarantee Schemes. "Information-based lending is the way to go for financial inclusion and socio-economic empowerment".

As a farmer's voice, Antony explained that after 10 years of representing farmer interests, EAFF has now shifted focus to empowering farmers in the value chain. In 2012, Kilimo Biashara was launched to empower smallholder farmers in their endeavor to run farms as businesses. Although many farmers are organized in CBOs and coops that are fairly cohesive, there is a data challenge as table banking does not facilitate availability and use of historical records for decision making. EAFF has started an E-Grannary, which is a mobile-phone based digital platform to aggregate farmers for markets. This linkage of farmers to markets is intended to enhance predictability and reliability of markets.

2.14.1 Q&A: Why has lending to Agriculture remained negligible despite many years of attempting to address challenges?

Responses:

1. Absence of Risk-Based Pricing will continue to constrain lending generally, and agriculture will remain a clear loser due to perceived risks that cannot be priced appropriately.
2. Inadequate efforts to channel credit through supply-chain financing modelled around the example of Umati Capital in partnership with Citibank.
3. Failure to apply technology, such as blockchain, to address existing challenges that could implement collateral registry, linking fintech to agtech in order to derisk agriculture.
4. Failure to utilize partnerships to address literacy and transport challenges

2.15 Session XIII: Sustainable finance as a driver towards a greener economy

Jackson Kiplagat, Ag Conservation Director & Regional Sustainable Investments Manager, WWF Kenya reviewed the green and blue economy concept and informed participants on the upcoming blue economy Conference. A green economy is one that results in improved wellbeing and social equity while reducing environment risks and ecological scarcity. The blue economy applies to the marine environment.

Kenya has developed a Green Economy Strategy and Implementation Plan (GESIP) 2016 – 2030 which highlights how Kenya can achieve a green economy through a low carbon, resource efficient, equitable and inclusive socio-economic transformation. The thematic areas of focus include promoting sustainable infrastructure, building resilience, sustainable natural resource management, promoting resources efficiency and lastly social inclusion and sustainable livelihoods.

The WWF is working with various players in the financial sector such as the CBK, the Capital Markets Authority and the National Treasury, KBA, NSE, Climate Bonds Initiative (CBI) and FSD Africa, in conjunction with the Dutch Development Bank FMO and the IFC who have initiated the Kenya Green Bonds Program (KGBP) that is expected to accelerate the take-up of green bonds as a tool for Kenya to tap into international and domestic capital markets to finance green projects and assets. The programme aims to facilitate capital flows into green investments to support sustainable economic growth in Kenya. The program will support potential Kenyan green bond issuers to come to market, engage the institutional investment community, and develop cooperative mechanisms to support access to the green bond market for smaller banks and corporates that have yet to get access to the market. WWF Kenya is supporting the KGBP to understand the existing and estimated future investment potential and financing demand for green investment projects in Kenya.

2.16 Session XIV: Market conduct

Rashid Ahmed, Consultant, credit market development focused on market conduct provisions, specifically, can be introduced with respect to credit reporting.

Market conduct has been defined as financial service providers adhering to rules that provide some protection for consumers against potential market abuse and/ or increased focus on clients as opposed to internal liquidity/ prudential risks, a check against potential abuse in the financial services system. Market conduct is important because it is an acknowledgement that financial services industry has evolved in sophistication and complexity. Legislation is often "dated" and does not appear to provide an appropriate response to this complexity even for sophisticated consumers.

There are 8 basic consumer rights:

• **Right to satisfaction of basic needs** - Right to basic goods and services such as food, water, shelter, clothing, health care and education.
• **Right to safety -** Right to protect themselves against unsafe goods and services, which can lead to destruction of property, injury or death.
• **Right to be informed** - Entitled to complete information on price, quantity and ingredients from providers of goods and services.
• **Right to choose -** Right to choose from a variety of quality goods and services sold at competitive prices.
• **Right to be heard** - Representation: right to be heard on issues, policies, plans, programmes and decisions which concern them.
• **Right to redress** - Right to redress on their grievances about substandard, unsafe, unduly expensive goods and services, unfair claims and other unfair consumer practices.
• **Right to consumer education-** Right to education that will empower them to take informed and confident choices of goods

and services.

- **Right to healthy and sustainable environment-** Right to live and work in an environment which does not threaten their health and life and which does not pose any danger to present and future generations.

Table 17. Key principles of market conduct charter

Principle	Potential Provisions Covered
Purpose	Sustainable credit market, curb over-indebtedness
Agreements	Categories - Small, Intermediate, Large?
Registration	Conditions – "everyone in business of credit"; Procedures; Fees
Consumer Credit Policy	Right to apply; right to know why credit declined; right to "simple language" agreements; right to "official language"
Other Rights	Format, Statement of Account; Rights to Rescind, Terminate
Credit Marketing	Negative marketing; Opting out; Advertising requirements
Reckless Credit	Over-indebtedness; Prevention of Reckless Credit; Courts?
Credit Agreements	Unlawful agreements; unlawful provisions; disclosures
Fees, Interest Rates, Charges	Prohibited charges; Interest; Cost of Credit; Maximum rates of interest fees and charges; Credit Insurance
Credit Repayment	Early Settlement; Right to settle; Repossession
Dispute Resolution	Complaint initiation; Consent Orders; Appeals/Reviews
Institutions	Regulator; ADR Mechanisms; Enforcement Action: Tribunal?

Table 18. Recourse mechanisms

Type	Issue
Code of Conduct	• Standards introduced and accepted by industry • Potentially low level of monitoring and compliance
Alternate Dispute Resolution Mechanism	• Public vs Private • More formal arbitration but…. • Reactive, only attends to cases where there are complaints
Regulator	• Formal mandate/Act/legislation to monitor market practices • Enforcement / Proactive investigations

These mechanisms are not mutually exclusively exclusive. Depending on the size and diversity of a market, multiple recourse mechanisms can co-exist.

3. RECOMMENDATIONS AND CLOSURE OF CONFERENCE

Jared Getenga thanked all participants for making time to attend the Conference, whose motivation he explained as:

1. Opportunity for industry networking
2. Demystify CIS mechanism
3. Unpack digital lending and emerging issues
4. Appreciate policy makers' mind set
5. Position CIS Kenya for future policy dialogue on credit market

There was consensus among participants that objectives 3-5 above had been well achieved and that future Conferences could aim to improve in:

Better regional representation

Involvement of consumers to highlight how credit reporting has affected them

Participation of bankers offering digital products

Demonstrating realization of full potential of CIS by C-Suite executives of banks through capacity building.

Jared concluded by confirming upcoming plans to develop a communication plan/strategy for consumer awareness programme that will be supported by the National Treasury and with extensive stakeholder involvement.

ANNEXURES:
CONFERENCE TRAININGS REPORTS

Annexure I: PROBLEM LOANS & LOAN DELINQUENCY MANAGEMENT TRAINING FOR FINANCIAL INSTITUTIONS

1 Introduction

Overview

CIS Kenya contracted BR Consult to design and deliver a 3-day Problem Loans Management training to build the capacity of staff/managers of financial institutions including; Commercial banks, SACCOs, Microfinance and Government based funds. The primary aim of the 3-day training was to equip the participants with techniques and tools to improve financial services and sustainability of their respective financial institutions through a properly managed loan portfolio. In specific, the training was to equip the participants with the credit management skills required to achieve high quality and performing loan portfolio.

This Problem Loan Management training had participation from 11 institutions – ICDC, IDB, Juhudi Kilimo, KDIC, Women Enterprise Fund, Progressive Credit Ltd, CBA, I & M Bank, DTB, Stima Sacco and DBK. A total of 19 participants were trained during the 3-day training sessions which was held between the dates 29th August – 31st August 2018 at Kenya School of Monetary Studies, Nairobi.

1.2 Training Goal and Content

The 3-day training content included these topics: General overview of loan classification under the different legislative frameworks namely: the Banking Act for commercial and development banks, SACCO Act for the SACCOs,

Microfinance Act for regulated MFIs and the global microfinance best practices guidelines for unregulated MFIs and Government based funds; definition of problem loans and management; credit cycle and possible risks; causes and costs of problem loans, prevention, measures and loan losses control with special focus on the importance of 'prevention being better than cure'.

At the end of the training session, each participant had an opportunity to develop their respective institution action plan on the strategies they intend to apply to: prevent, control and manage problem loans within their institutions.

1.3 Training Organization and Delivery

The training organization and delivery incorporated a participatory training approach that allowed active participation of both the learners and trainers. To further enhance participation of the entire team, learning was conducted through small working groups to make learning more effective and participatory. The breaking off of the participants into small learning units made learning not only effective but interesting.

Training Content

This Problem Loans Management training was developed and delivered by experienced BR Consult Consultants – Rose Mwaniki and Mathew Macharia with guidance from CIS Kenya. The workshop schedule below provides a caption of the modules covered during the 3-day training.

	Day 1 – 29th August	Day 2 – 30th August	Day 3 – 31st August
9.00–10.30	Introduction to the course Trainer and participants introductions Formation of working groups Expectations, Course Objectives & Ground rules Loan Classification – Banking Act/ Microfinance Act & SACCO Act & Global Level Microfinance Best Practices *Plenary discussion*	Recap – Day 1 *Loan Portfolio & Problem Loan Management* • Defining loan portfolio and problem loans • Causes of Loan Problems/Delinquency *Group Work & Plenary Discussions*	Recap – Day 2 Problem Loans Management • Measures of problem loans/ delinquency • Controlling the impact of problem loans *Group work & plenary discussion*
11.00 – 13.00	**Definition of Problem loans Loan Cycle & Problem Operations areas** • Marketing of loans by segment • Mobilization of target customers • Customer's Appraisal • Loan Analysis	**Loan Problem & Delinquency management** • Costs of problem loans • General and financial costs *Group Work & Plenary Discussions*	**Problem Loan management** • Managing problem loans • Options and related challenges *Group Work and Plenary Discussions*
14.00 - 15.30	**Loan Cycle and Problem Operations areas** • Loan Structuring • Loan Approval processes • Loan Documentation • Loan Disbursement *Plenary Discussions & Group Discussion*	**Problem Loan management** • Impact of problem loans on the financial performance of the institution. • Impact of problem loans on the customer *Group Work and Plenary Discussions*	**Individual participant commitment** • Individual Commitment Form Course Evaluation • Individual Activity
15.30 – 16.30	**Loan Cycle and Problem Operations areas** • Loan Monitoring • Loan Recovery • Loan Measurement • Loan Reporting *Plenary Discussions & Group Discussion*	**Loan Delinquency management** • Impact of problem loans on the financial performance of the institution. • Impact of problem loans on the customer *Group Work and Plenary Discussions*	

Annexure 2:
CREDIT RISK SCORECARD DEVELOPMENT & IMPLEMENTATION TRAINING

2.1 Introduction

CIS Kenya contracted SAS , globally renowned trainer in analytics and turning data to business intelligence to design and deliver a 2-day Credit Risk Scorecard Development and Implementation training to enhance the aptitude of credit data analysis of financial institutions including; Commercial banks, SACCOs, Microfinance banks and Regulators. The focus of the course was on the development of application scorecards and behaviour scorecard development. Select elements relevant to Basel II were also covered. The business-focused course was composed of:

- High level introduction to credit risk management,
- Detailed end-to-end methodology training for risk scorecard development for retail and SME portfolios,
- Discussions on scorecard implementation and risk strategy development, and scorecard and portfolio management reporting.

Participation in this training was drawn from 13 institutions – I&M Bank, Boresha Sacco, ICDC, Stawika Capital LTD, KWFT, MESPT, DTB, KCB, Maisha MFB, Bank of Zimbabwe, Bank of Uganda, Equity Bank and Development Bank. A total of 23 participants were trained between the dates 29th August – 30th August 2018 at Kenya School of Monetary Studies, Nairobi.

2.2 Training goal and content

2.2.1 Objectives

Over the 2 day training the following tenets of Credit Risk scorecard Development and Implementation were covered:

Introduction to Credit Risk
Attendees got a high level overview of the credit risk industry, risk management tools and strategies. They were to understand the different uses of credit risk scorecards, and learn industry terminology.

Risk Scorecard Development
Attendees learned how grouped, variable, points based credit risk scorecards are developed, from the planning stages to delivery. While the main focus was to be on business issues, statistical aspects of scorecard development were also explored.

Implementation and Maintenance
This covered post development activities including setting cut-offs, strategy development and scorecard maintenance reports

Training Organization and Delivery
The training was conducted in a classroom manner consisting of a short topical lecture then examples and practical session. At the end of the training session, each participant was issued with a book: Intelligent Credit Scoring authored by the trainer Naeem Siddiqi. Here is an excerpt of the book:
'Inhouse Scorecard development is a rapidly growing trend, it is also faster and less expensive and allows companies to create better performing scorecards by applying first-hand knowledge of internal data and business insights.'

The book was specifically written for heads of risk modelling, credit risk managers, scorecard developers and credit risk officers operating in the real world and is a practical guide featuring new cases, diagrams, up to date examples e.t.c from all over the world.

Pictorials

Happy hour after an intense day

Eddie Ndichu, MD of Opera and Dr Patrick Njoroge, Governor CBK in conversation

Governor having a moment with CEO of CIS Kenya and KBA

Exhibition grounds

Delegates follow proceedings during the opening of the conference

Gabrel Davel and Sam Omukoko discussing credit market issues

Exhibition grounds

The Governor conversing with some of the conference attendants

CIS Kenya

Towards a more open credit market