

Social media usage by digital finance consumers:

Analysis of consumer complaints in Kenya, Nigeria and Uganda. July 2019 - July 2020

April 2021



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1. Executive summary

Context and purpose of the study

The objective of the project is to deepen the understanding of the types of consumer protection problems experienced by digital finance consumers across three countries. It consists of a social media listening tool tested on digital financial services in Kenya, Nigeria and Uganda, and will be used to inform potential further experimentation with consumer engagement and complaint handling via social media by regulators and civil society.

Methodology

This project has been developed in collaboration with Citibeats, an Ethical AI platform analyzing unstructured text. The project collects historical data on consumer protection-relevant content published on Twitter, Facebook Public Pages and Google Play Store Reviews covering the period from 1 July 2019 to 1 July 2020. This yielded 4.5 million documents in total, of which 60% were categorized as relevant to the defined topics of study.

Once the data was collected and filtered, we used Citibeats to categorize it into seven topics: operational failures, consumer care, fees & charges, fraud, data privacy, lending and advertising. The analysis provides insights into the types of consumer protection issues faced by consumers across countries and financial providers, classified into four types: Commercial Banks, telecommunication companies offering mobile money services, Fintech companies mainly offering online lending products and payment methods and microfinance institutions

Main findings

- While Twitter and Facebook accounts are mainly used to report different types of consumer protection-related issues, Google Play Store reviews focus on App performance and operational failures.
- Waiting times and lack of responsiveness are the most frequent complaints related to customer care. Financial providers' response rate vary considerably across Twitter, Facebook and Google Play: the response rate of the interaction between consumers and providers measured is higher on Google Play.
- Transaction errors are the most frequently reported issues under operational failures across the three markets and the three social media channels.
- Differences across different socio-demographic groups (gender, urban/rural and income level) are, in general, small. Although:
 - In all three countries, customer care topics are more frequently discussed in urban areas.
 - While almost 70% of customers use an Android device to post on social media, the highest share of iPhone users, around 20%, is among Fintech and Commercial Banks' customers.
- The usage of social media channels to communicate issues and interact with financial providers has increased across the three markets after the breakout of the COVID-19 pandemic.

Conclusions

Digital feedback has large potential for consumer protection. The customer experiences shared in the different social media channels have proven to be a rich source of information with the potential of answering a large number of questions. Who will make use of this data and methods going forward, and how will it benefit people?

- Regulators, who can apply new approaches to have automated tools for market monitoring, providing real-time statistics and early warning signs on action that should be taken, so that issues can be addressed earlier, with the potential for more cost-effective interventions.
- Financial Inclusion donor organizations, which have a mandate to ensure that the growth of financial services goes in line with consumer protection and is socially responsible.
- Innovation for Poverty Action, by adding a new data approach to inform new experimental interventions.
- Consumers themselves, as digital communities begin to form around creating transparent information about providers.

2. Introduction

The Social Media Usage by Digital Finance Consumer Project is part of IPA's Consumer Protection Research Initiative. The objective of the project is to deepen the understanding of the types of consumer protection problems experienced by digital finance consumers across three countries and types of financial providers. It consists of a social media listening tool tested on digital financial services in Kenya, Nigeria and Uganda, and will be used to inform potential further experimentation with consumer engagement and complaint handling via social media by regulators and civil society.

The digitization of financial services has been on the rise in the past years and has experienced a particularly big leap after the COVID-19 pandemic due to the temporary closure of physical offices and bank branches of many financial service providers. As financial services go digital, so do consumers by sharing their experiences, complaints and reviews through online channels and social media. Increasing use of social media channels to share feedback, concerns, and challenges provides new opportunities for insights into issues affecting digital consumers which can complement traditional methods such as phone or in-person consumer surveys.

To explore these opportunities, IPA piloted a social media listening and analysis project for consumer protection monitoring in digital financial services. This project has been developed in collaboration with Citibeats, an Ethical AI platform analyzing unstructured text. The project collects historical data on consumer protection-relevant content published on Twitter, Facebook Public Pages and Google Play Store Reviews and analyzes it using Artificial Intelligence algorithms based on Natural Language Processing and semi-supervised machine learning. The analysis provides insights into the types of consumer protection issues faced by consumers across countries and financial providers, classified into four types:

- Commercial Banks
- Telecommunication companies offering mobile money services
- Fintech start-ups mainly offering online lending products and payment methods
- Microfinance institutions

The project also investigates how providers respond to their digital customers, and contributes to understanding whether and how the COVID-19 pandemic has affected the types of issues reported and potential gender differences.

The analysis focuses on different types of consumer protection topics classified into seven categories: operational failures, consumer care, fees & charges, fraud, data privacy, lending and advertising.

The learnings from this project contribute to expanding the knowledge on social media usage by digital finance consumers and the types of consumer protection issues they face. The customer experiences shared in the different social media channels have proven to be a rich source of information with the potential for improving consumer protection monitoring and measuring of volume and types of different issues consumers face.

Who will make use of this data and methods going forward, and how will it benefit people?

- Regulators, who can apply new approaches to have automated tools for market monitoring, providing real-time statistics and early warning signs on action that should be taken, so that issues can be addressed earlier, with the potential for more cost-effective interventions.
- Financial Inclusion donor organizations, which have a mandate to ensure that the growth of financial services goes in line with consumer protection and is socially responsible.
- Consumers themselves, as digital communities begin to form around creating transparent information about providers and holding them accountable for their conduct and quality of customer care.

3. Methodology

Data sources

This project analyzes three data sources: Twitter, Facebook Public Pages, and Google Play Store, covering the period from 1 July 2019 to 1 July 2020. This yielded 4.5 million documents in total, of which more than 50% are categorized as relevant to the defined topics of study. A full set of the queries used is available in Appendix 1.

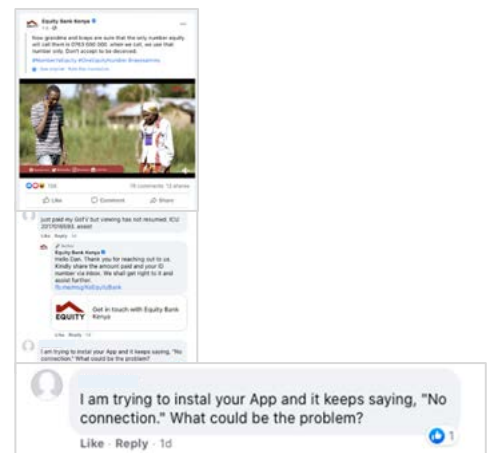
Twitter

- Tweets are collected where the tweet is directed at a selection of financial service providers in each country studied (for example, Kenya Equity Bank would be @KeEquityBank).
- In order to separate country datasets, only national level accounts are used. For example, @AIRTEL_KE for Kenya, @AirtelNigeria for Nigeria and @AirtelUG for Uganda. In the case where an international financial provider has no national level account, only tweets from users specifying a profile location in the country of interest are collected. This particularly affected international commercial banks.
- Retweets and copy and pasted tweets are not counted in the sample, only original opinions.
- Names are used for aggregated and anonymized gender estimations.



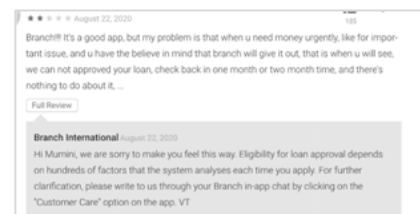
Facebook Public Pages

- This data source comes from posts on public pages only (for example, the official public page of [Kenya Equity Bank](#)), and not from people's regular posts.
- These posts are comments sent as replies to a post on the public page, since there is no other way to write to the provider on their public page. The original post from the company is often a marketing related post, and consumers reply with a wide variety of comments (not only complaints)
- No personal data is collected (names), gender and location are analysed at aggregate level only.



Google Play Store reviews

- These are reviews left by users of apps of the providers (where they exist).
- They include a comment as well as a star rating
- These are typically more focused on the app than the overall experience provided, but they may mention issues beyond the app.
- No personal data is collected (names).



Given the different usage context of each source, we see differences in the types of consumer opinions and complaints expressed across platforms. This is reflected in the percentage of content, which in this case means content determined to be consumer protection relevant. There are several reasons content may not be categorized as relevant. It may be that it is not relevant to one of the defined categories; it may be that it is not a full opinion, for example it is a copy and pasted tweet (duplicate) or an unofficial retweet (where people write 'RT' instead of using the retweet function); it may be a short text just saying 'Thanks', and so on.

Data Source	Collected	Categorized	% Categorized
Twitter	1,948,692	1,203,574	61,76%
Facebook Public Pages	1,971,533	954,216	48,40%
Google Play Store	743,932	295,151	39.67%

Twitter has the highest levels of categorized content, which is to be expected as we principally include customer attention channels where the content will be focused on complaints. Facebook Public Pages have a lower percentage categorized since the context of their use is not primarily intended for collecting and responding to customer complaints - they are principally a marketing channel for the providers. However, Facebook Public Pages are still a rich source of customer complaints, as customers do not only reply to providers' public announcements but also use it to catch their attention on any issue they may be facing. This would be important to consider in future applications together with a deeper analysis on response rate, as it could indicate that consumers could be better served with increased customer attention offered by providers through Facebook.

Google Play Store has a low proportion of comments categorized because, like Twitter, the context of use is talking about users' experience with the provider. However, the reason for this lower categorization can be explained by the very short reviews from customers, often consisting of just one or two words. This could be considered a technical limitation of classification, or a conceptual framing issue (whether a comment of one or two words can be considered a consumer complaint or opinion on the same level as more lengthy inputs). Google Play Store reviews are also skewed towards Fintech and more digitized providers and, as we will see, towards certain types of consumer problems. The differences in context of use are important to keep in mind when interpreting results from the analysis across platforms.

Overall, we can conclude that each platform is a useful source of complaint data with different contexts and content, and so it would be important for regulators and academic institutions to include these channels in future work.

Categorization

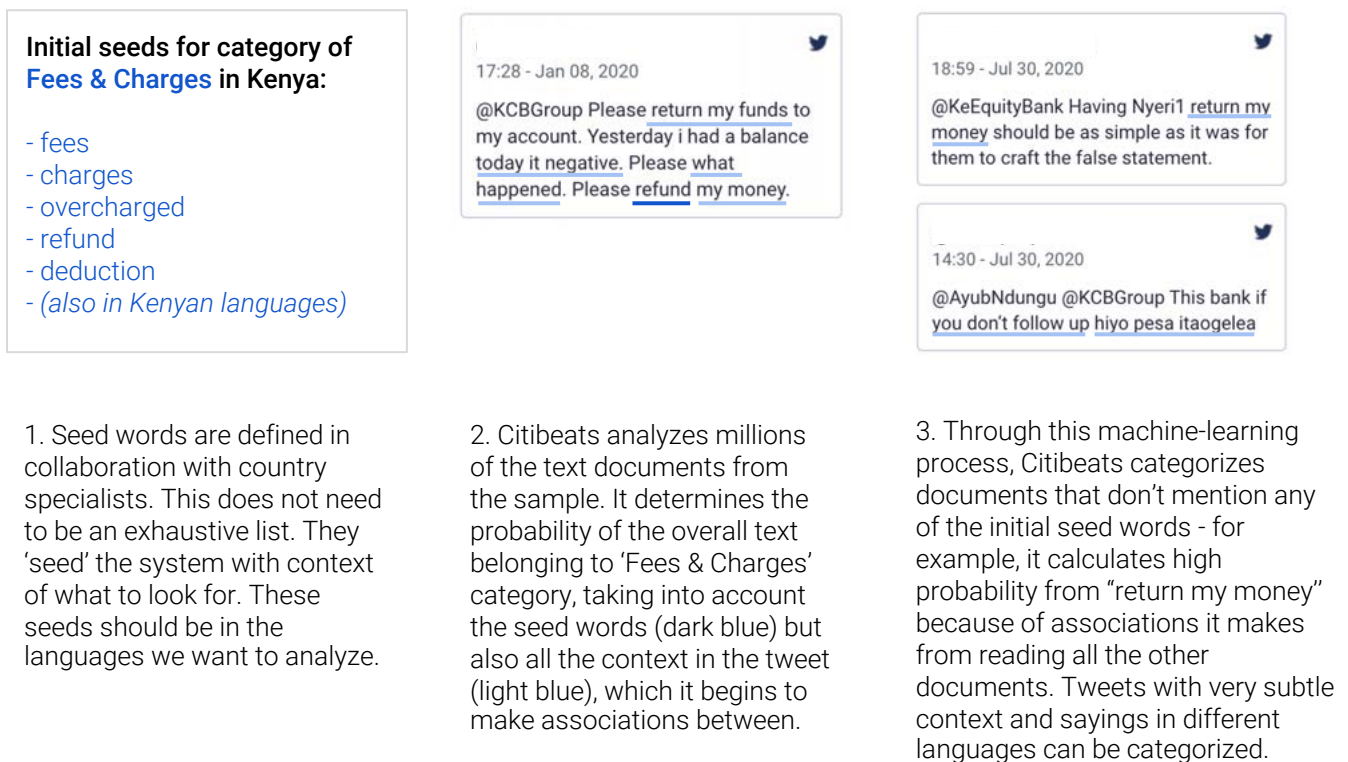
Once the complaint data from all three social media channels is collected and filtered, we use Citibeats to categorize it into topics. These topics are chosen based on a top-down definition of issues regulators believe are priorities (determined through interviews). A bottom-up approach, based on an exploration of the data through cluster analysis and human reading of samples of the data, helped expand and improve the definition of issues. These topics are:

- **Operational failures** related to transactions, digital banking issues such as app failures, log-in problems or system downtime.
- **Customer care** issues such as responsiveness and problem solving in physical branches/stores, via telephone or email/social media.
- **Fees and charges** that are unexpected, abusive or erroneous.
- **Fraud**, both external and internal, affecting customers
- **Data privacy** issues such as sharing personal data without consent, private information leakage, SMS spam, etc.
- **Lending**-related comments, for example, complaints about the selection criteria or interest rates.
- **Advertising** topics, where consumers comment, share, and complain about advertisements and promotions.

Some of the main topics have been sub-categorized into more detailed and relevant issues based on a combination of top-down definition and bottom-up exploration of the data.

Citibeats' algorithm categorized the data using a semi-supervised (or 'weakly supervised') machine-learning system. This means that the system requires a small number of human inputs in order to categorize documents, and the human operator can give feedback to the system in order to refine results. The human inputs in this case are a set of words and phrases relevant to each category. These inputs, which are starting points for the system, were defined in collaboration with Country Specialists in Kenya, Nigeria and Uganda - in Swahili, Luganda, Yoruba, Hoosa, and Pidgin.

The Citibeats system then creates a model specific to this data sample (specific to these topics, countries and languages). Here is an example of how we go from initial human inputs ('seed words') to inferring the relevance of a social media complaint to the topic:



This approach to categorization lends itself to the consumer protection context in several ways. First, it is language-agnostic - it will categorize in any language which the seeds are put in. Second, it adapts to how real people speak - slang words, local vocabulary and misspellings can be part of the model created. Third, it adapts to new context - if, for example, an event like COVID-19 happens, or a new product is released by a bank, new terms that are relevant to the categorization will enter the model and be considered in the probabilistic process. These are important considerations in contexts with fast-changing topics (like scams, or customer problems) and diverse language environments (as is the case in these three African countries).

4. Analysis

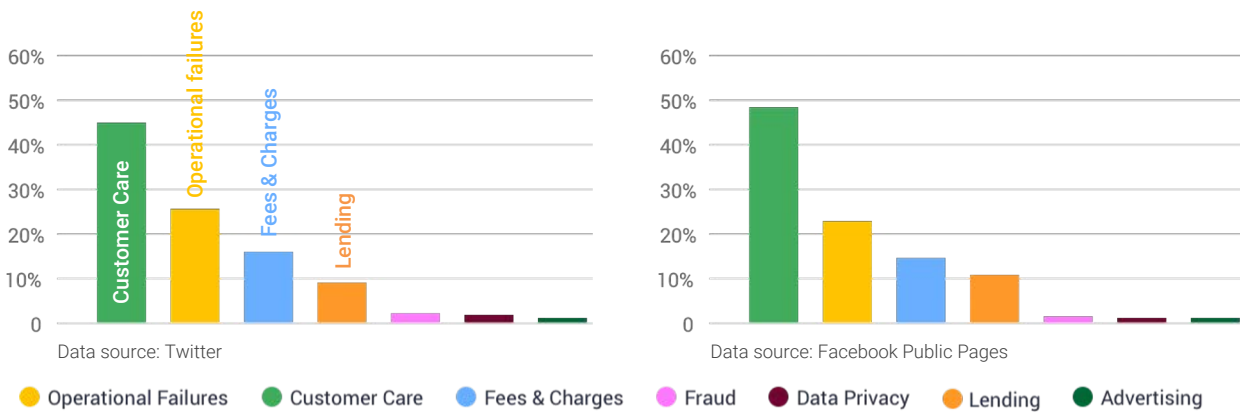
4.1. How do consumers use social media differently?

While Twitter and Facebook accounts are mainly used to report different types of consumer protection-related issues, Google Play Store reviews focus on App performance and operational failures.

- There are similar distribution of the different types of consumer protection topics across Twitter and Facebook Public Page channels.
- The majority of comments relate to consumer care issues, where consumers use social media to get attention from the financial service provider or to complain about slow response times or unresponsiveness from providers.

Similar distributions of consumer protection issues in Twitter and Facebook Public Pages

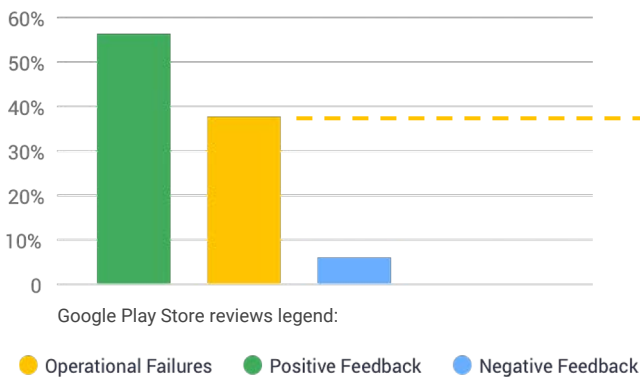
Proportion of comments related to different types of issues.
Three markets aggregated



- Customers' comments regarding a negative experience* are most commonly within the operational failures and negative feedback categories. The latter is a simple negative comment such as "terrible app", while operational failures correspond to more elaborate feedback that details a specific problem.
- After positive feedback, the reporting of operational failures is the second highest type of reviews on Google Play Store. Transaction errors are the most common operational failures reported in Google Play Store reviews.

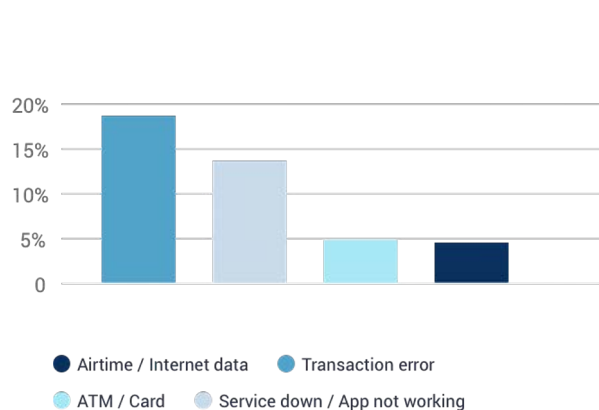
Reviews on Google Play Store

Proportion of comments related to different types of issues.
Three markets aggregated



Types of operational failures reported on Google Play Store

Proportion of comments related to different types of issues.
Three markets aggregated



Negative experience is captured filtering by the following expressions:

- Operational failures: fail, unable, wrong, slow, doesn't work, etc
- Negative feedback: disappointing, useless, bad experience, worst app...

4.2. Which are the most common consumer protection topics?

Customer care-related issues are the most common concern in the three markets, while comments on lending and fees & charges stand out in Kenya and Uganda compared to Nigeria.

- The volume and level of digitization* of financial providers differs across the three markets: while in Nigeria we find a higher number of financial providers using social media channels, Uganda is the country with the least.
- In Kenya, Fintech consumers present a higher share of comments on different issues related to loans, such as being required to get cleared from the Credit Reference Bureau (CRB) after repaying a loan, reflecting the large digital credit market in Kenya. In Uganda, Microfinance institutions are the ones receiving most comments about lending**.
- In the Ugandan market, we find a higher share of comments related to fees & charges, especially in Telecoms and Fintech providers, where customers complain about unexpected mobile money deductions.

Consumer protection issues faced by digital finance consumers differ by country

Proportion of Twitter (left) and Facebook (right) consumer protection comments by country and type of financial provider

● Operational Failures
 ● Customer Care
 ● Fees & Charges
 ● Fraud
 ● Data Privacy
 ● Lending
 ● Advertising



* Measured by the number of financial institutions with active accounts on the three data sources and volume of comments received.

** Volume in this category is low (less than 200 comments/month), thus we consider it an indicative result.

4.3. How do markets and financial providers compare?

Analyzing outliers helps identify when a market segment may be experiencing more problems compared to the rest.

- The outliers analysis highlights when a market segment (type of financial provider in each country) has an unusually higher or lower-than-average proportion of documents in a specific category, i.e. types of issues, suggesting that a type of provider may be experiencing bad performance based on the volume of customer feedback.
- Additionally, when looking at different data sources separately, we can obtain a more granular point of view - as one characteristic of social media is the fact that a story can go viral, encouraging other customers to share their experience and uncover a latent problem.
- Conducting this type of analysis at a financial provider level can be very useful to quickly identify those providers that stand out in a particular issue based on an unusually higher-than-average volume of customers comments.

Outliers analysis across financial providers and countries for Twitter and Facebook data.

Proportion of comments by categories and upper and lower outliers by type of financial provider and country

● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

Twitter

Avg.	Kenya				Nigeria				Uganda			
	Commercial Banks	Fintech	Microfinance	MNOs	Commercial Banks	Fintech	Microfinance	MNOs	Commercial Banks	Fintech	Microfinance	MNOs
26%	21%	14%	19%	22%	23%	25%	62%	21%	21%	19%	24%	24%
45%	62%	23%	48%	51%	49%	52%	24%	57%	64%	47%	27%	36%
16%	9%	7%	10%	18%	22%	17%	11%	13%	9%	28%	18%	29%
2%	1%	1%	2%	2%	2%	2%	1%	2%	2%	2%	2%	3%
2%	1%	3%	1%	2%	1%	1%	1%	4%	1%	1%	1%	3%
9%	5%	52%	19%	3%	2%	2%	1%	1%	2%	1%	18%	2%
1%	1%	0%	1%	1%	1%	1%	0%	2%	1%	2%	no data	3%

■ Upper outlier ■ Lower outlier

Facebook Public Pages

Avg.	Kenya				Nigeria				Uganda			
	Commercial Banks	Fintech	Microfinance	MNOs	Commercial Banks	Fintech	Microfinance	MNOs	Commercial Banks	Fintech	Microfinance	MNOs
22%	21%	22%	13%	25%	28%	22%	22%	30%	23%	24%	17%	24%
48%	54%	48%	68%	44%	47%	51%	48%	39%	57%	33%	57%	33%
14%	9%	4%	4%	22%	15%	13%	5%	22%	9%	30%	7%	33%
2%	1%	1%	0%	2%	2%	2%	2%	2%	1%	2%	1%	2%
1%	1%	1%	1%	1%	1%	1%	2%	2%	1%	2%	1%	2%
11%	14%	24%	14%	4%	6%	9%	20%	3%	9%	5%	17%	3%
1%	0%	0%	0%	1%	1%	1%	0%	2%	0%	4%	0%	2%

■ Upper outlier ■ Lower outlier

4.3.1. How do financial providers compare? - Twitter data

Analyzing outliers helps identify when a financial provider may be experiencing a higher number of comments on a particular topic compared to the rest.

Outliers analysis across financial providers and countries, for Twitter data.

Financial providers with a higher proportion of tweets on consumer protection issues as portion of overall tweets

● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

Kenya						
Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
KCB Bank Kenya M-PESA HF Group Airtel money Telekom T-kash Equitel	KCB Bank Kenya Equitel M-PESA Standard Chartered Bank	M-PESA Airtel money Telekom T-kash Cooperative Bank	Cooperative Bank M-PESA Equitel KCB Bank Kenya NCBA Bank Kenya	M-PESA Airtel money Telekom T-kash OKash KCB Bank Kenya Equitel Absa Bank	M-PESA OKash HF Group Airtel money KCB Bank Kenya ABSA Tala Zenka Faulu Microfinance Bank Zidisha Sidian Bank Okolea NCBA Bank Kenya	M-PESA Airtel money Telekom T-kash Airtel money
Nigeria						
Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
PiggyVest Alat Palm Finance Standard Chartered Bank Nigeria Baxi Mobile WalletsAfrica Fidelity Bank GTBank Mobile Money Airtel Money Access Bank Stanbic IBTC Bank PayAttitude ReadyCash Polaris Bank Opay Zenith Bank	GloXchange JumiaPay Opay Quickteller Wema Bank Ecobank Zenith Bank United Bank for Africa GTBank Mobile Money Access Bank Alat Union Bank of Nigeria Airtel Money Fidelity Bank PiggyVest	GTBank Mobile Money Fidelity Bank Access Bank Zenith Bank Polaris Bank United Bank for Africa Union Bank of Nigeria Stanbic IBTC Bank First Bank Nigeria	Zenith Bank Access Bank Sterling Bank JumiaPay Wema Bank GloXchange Polaris Bank Stanbic IBTC Bank First Bank Nigeria GTBank Mobile Money Ecobank United Bank for Africa Airtel Money First City Monument Bank Opay	GloXchange First Bank Nigeria Airtel Money Fidelity Bank JumiaPay GTBank Mobile Money Wema Bank Opay Cowrywise Access Bank Zenith Bank Alat	Opay Wema Bank Access Bank Sterling Bank Fidelity Bank Union Bank of Nigeria FairMoney Sokoloan RenMoney First City Monument Bank GTBank Mobile Money Airtel Money First Bank Nigeria	GloXchange Airtel Money Access Bank PayAttitude First Bank Nigeria Union Bank of Nigeria First City Monument Bank Zenith Bank Unity Bank
Uganda						
Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
Centenary Rural Development Bank Equity bank MTN	Dfcu Bank	MTN	Airtel MTN Dfcu Bank	MTN	Africell KCB Bank Uganda Finance Trust Bank Uganda Stanbic Bank	MTN Dfcu Bank

Data source: Twitter

4.3.2. How do financial providers compare? - Facebook data

Outliers analysis across financial providers and countries, for Facebook data.

Financial providers with a higher proportion of comments by types of issues

● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

Kenya

Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
Bayes Stawi Kuwazo Pesa Pata Scoppe	Caritas Microfinance Bank	M-PESA Telekom T-kash Guaranty Trust Bank	Ecobank Stawi United Bank of Africa Zidisha LionCash PesaFlash	Digital Sacco Kakitu Okolea NCBA Bank Kenya		HF Group Okash M-PESA Sumac Microfinance Bank Transnational Bank United Bank of Africa Zidisha Guaranty Trust Bank Mkey

Nigeria

Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
PiggyVest Rosabon Financial Services	SunTrust Bank Nigeria JumiaPay Nigeria	FastLoan by Fidelity Bank GloXchange Paystack PiggyVest Remita Cowrywise First Bank Nigeria Naira.com United Bank for Africa	Paystack PiggyVest Xcredit Zenith bank Branch International Cowrywise VoguePay	Alat GloXchange Nirsal Microfinance Bank PiggyVest Aella Credit Cowrywise Naira.com VoguePay Wema Bank	FINT Loan	GloXchange Paystack PayAttitude FINT Loan JumiaPay Nigeria Social Lender

Uganda

Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
		MTN Smile M-sente UTL Africell Airtel	MTN Smile Airtel Citibank Uganda	Top Finance Bank Uganda UGAFODE Microfinance Airtel Smart Loan Uganda	FINCA Uganda Top Finance Bank Uganda Smart Loan Uganda	MTN Airtel M-Kopa

4.4. How do consumer protection topics differ across products?

What are the most common products related to the different types of issues?

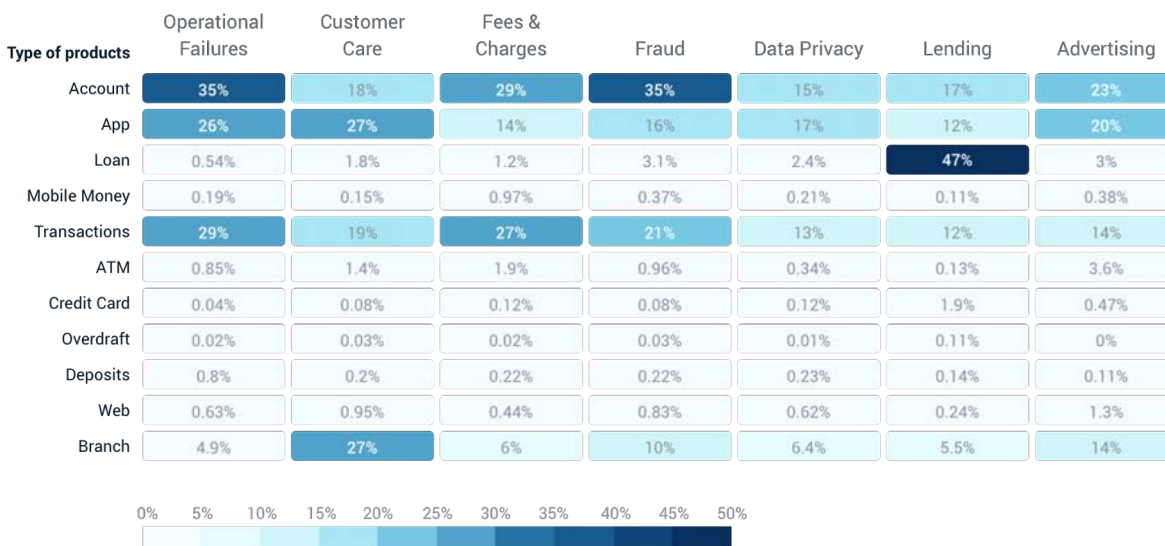
To gain further insight into the different consumer protection issues affecting customers, we have analyzed which products are mentioned most frequently by types of issues. The list of products is a result of a bottom-up exploration of the data through topic modelling (tf-idf analysis) and human reading of samples of the data. For the three markets aggregated, we observe that:

- Operational failures particularly affect accounts and Apps, and less so with transactions.
- Customer care issues, like lack of response or long waiting times, are associated with account and app problems and lack of attention in the different office branches.

An analysis by country is available in the Appendix.

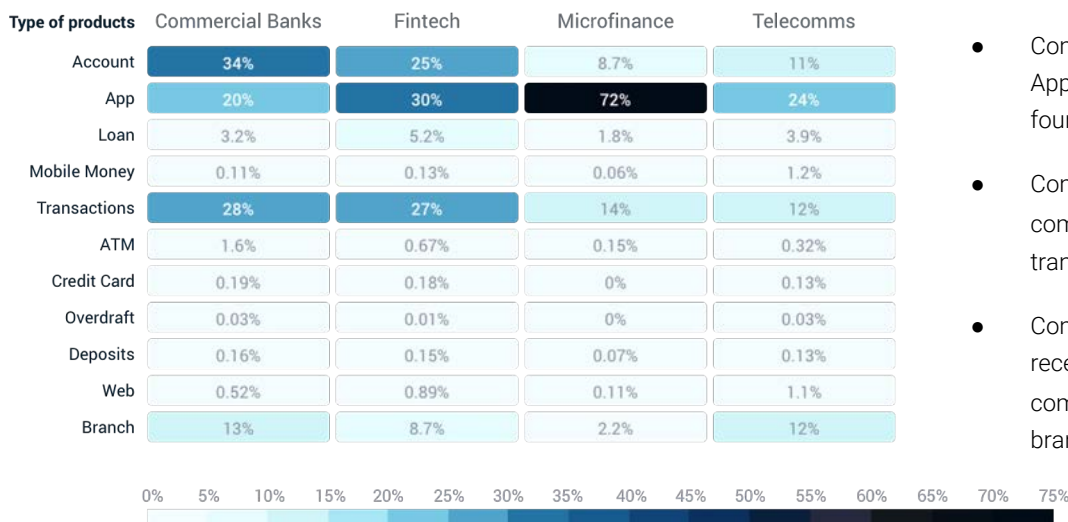
Most common products affected by the different types of issues

Distribution of types of issues across types of products.
Three markets aggregated



Most common products mentioned in comments addressed to the accounts of the different types of financial providers

Distribution of types of financial providers across types of products.



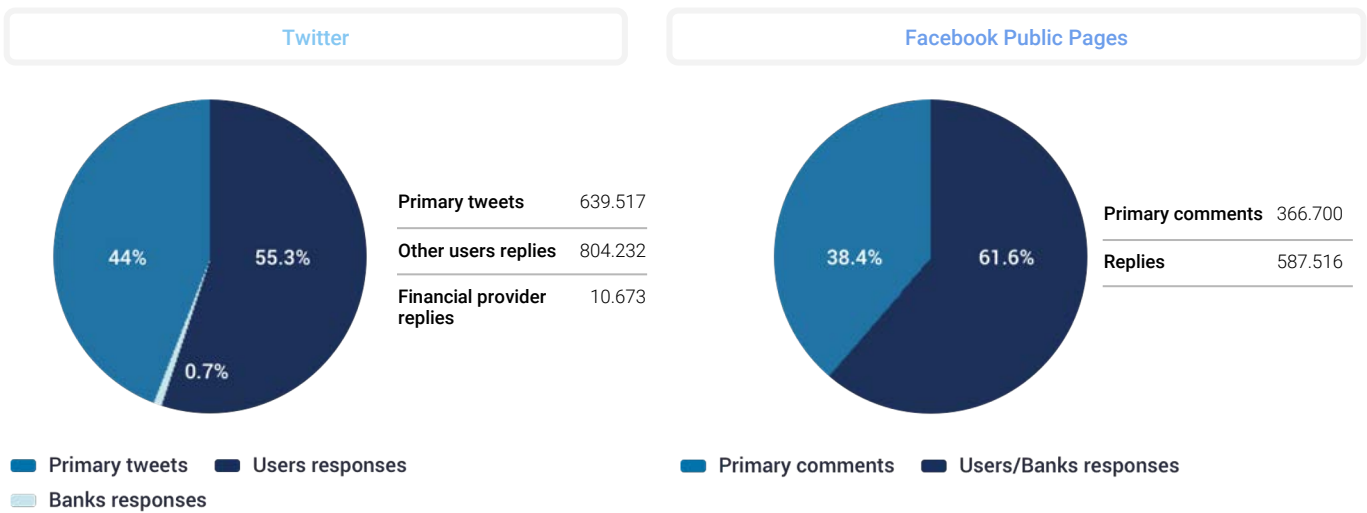
- Comments referring to the provider's App are most common across the four types of financial providers.
- Commercial Banks mainly receive comments about accounts and transactions issues.
- Commercial Banks and MNOs also receive a high proportion of comments about their office branches.

4.5. Conversation structure: how do social media users interact?

Both Twitter and Facebook Public Pages have high engagement levels—one comment receives, on average, 2.7 replies in Twitter and 3.2 replies in Facebook.

- Twitter: 55% of comments analysed are replies from other individual social media users while only 0.7% of comments come from financial providers.
- Facebook: 61% of comments analysed are replies from individual users and financial providers. Unlike Twitter, it is not possible to distinguish Facebook comments' authors and thus we cannot specifically identify financial providers replies.

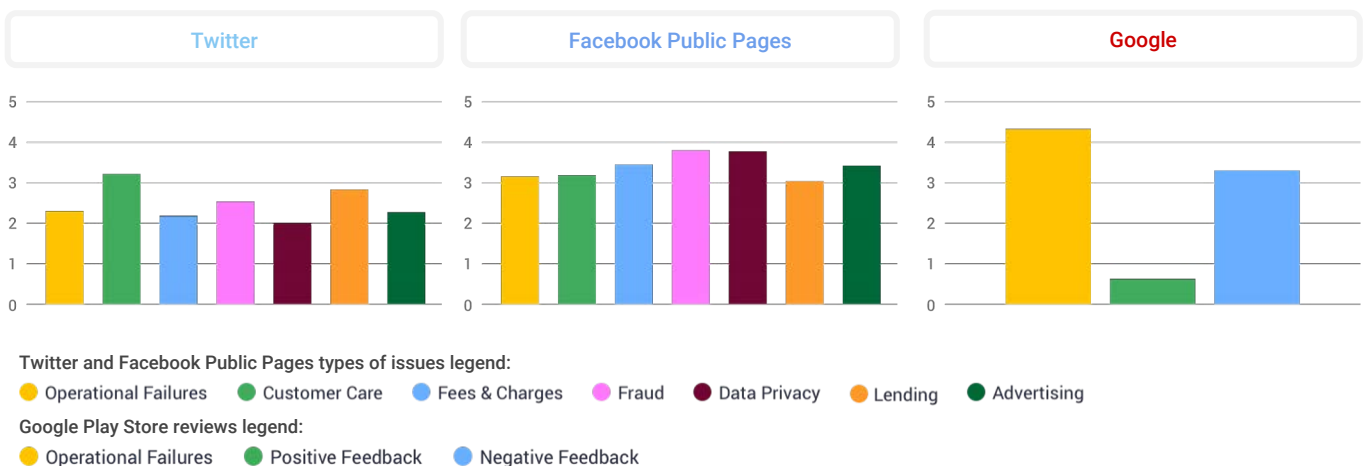
Type of comments on Twitter and Facebook
Type of comments that shape the conversation



There were no relevant differences in average number of replies between Twitter and Facebook Public Pages except for Customer Care, which had a higher average number of replies in Twitter.

- The average number of replies, both from individual users and financial providers, across the different types of issues is higher for comments in Facebook Public Pages than those published in Twitter and Google Play Reviews site.
- As expected, comments on Operational Failures posted in Google Play sites receive the highest number of replies - we do not expect much conversation around comments like "excellent App" or "terrible App".

Conversation threads on Twitter, Facebook and Google Play
Average number of responses to comments by type of issue



4.6. How do financial providers publicly respond to consumer feedback?

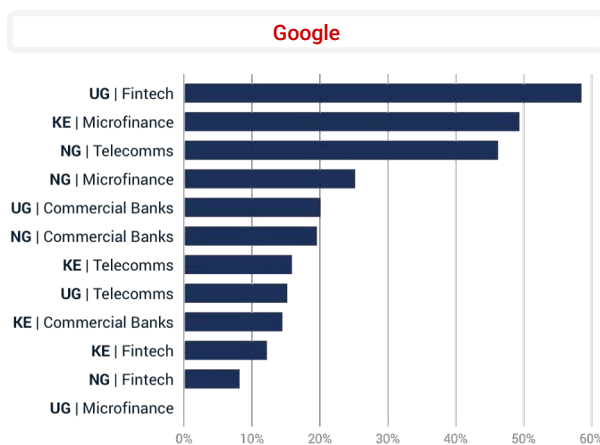
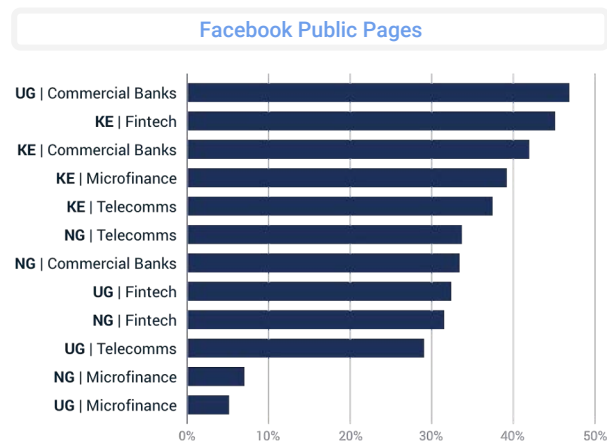
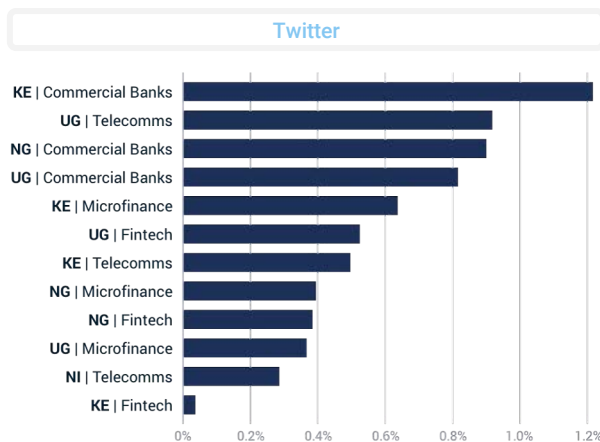
Financial providers' response rate is very low in Twitter, while the response rate proxy for Facebook Public Pages comments and Google Play Store reviews yields a much higher rate. However, due to the need to use a proxy, this finding should be interpreted carefully.

To create a proxy for calculating response rate, we used the following approaches:

- For Twitter, it is the percentage of comments which are a publicly-visible response from the providers - this is between 0.04% and 1.22% across countries and financial providers. In fact, it is the lowest percentage rate across data sources. This result is further analysed in the next section.
- For Facebook and Google Play Store reviews it is not possible to identify the author of the comment, meaning that we cannot distinguish between financial providers' replies and other social media users' replies. Thus, the results are only an approximation and should be interpreted carefully:
 - For Facebook, it consists of the percentage of consumers' comments with at least one reply - this is between 5% and 46% across countries and financial providers.
 - For Google Play, it is the percentage of comments with at least one reply - this is between 8% and 58% across countries and financial providers. In this case, customers comments consist of very specific feedback about the app, which is very appreciated by providers, something that could explain the high rate of response.

Response rate proxy on Twitter, Facebook and Google Play

Number of responses of banks / Total of tweets, by type of bank and country



Conclusions and implications of this analysis

- Twitter: low financial providers reply rate may be explained by the lack of resources to address the high number of comments published daily and the virality of some topics. A next research step would be to distinguish the intentionality of the comment: whether it is a question, a complaint or praise. This information will help us distinguish the number of comments that should receive a reply from the provider but do not.
- Facebook and Google Play: results in this and the following sections are an approximation and most likely overrepresent the real reply rate, since we cannot distinguish whether the replies come from the author (provider) or other customers. To obtain an accurate rate, more information from Facebook and Google is required.

4.6. How do financial providers publicly respond to consumer feedback? (cont.)

To further understand the interaction between customers and financial providers on Twitter, we analysed the financial providers reply rate to primary tweets without taking into account the rest of the Twitter thread built by other users replies.

The assumption is that most primary tweets contain relevant information to the financial providers, and thus they should be interested in providing a reply. Other users replies may not always add relevant information and the provider could not be interested in replying.

The results further confirm that in most cases, financial providers' response rate is very low.

Response rate proxy on Twitter

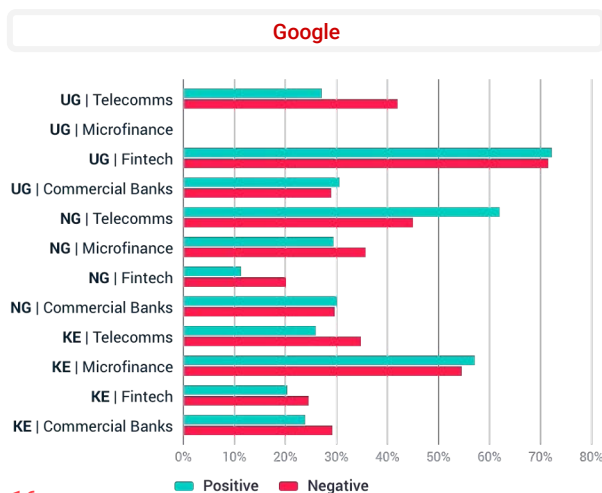
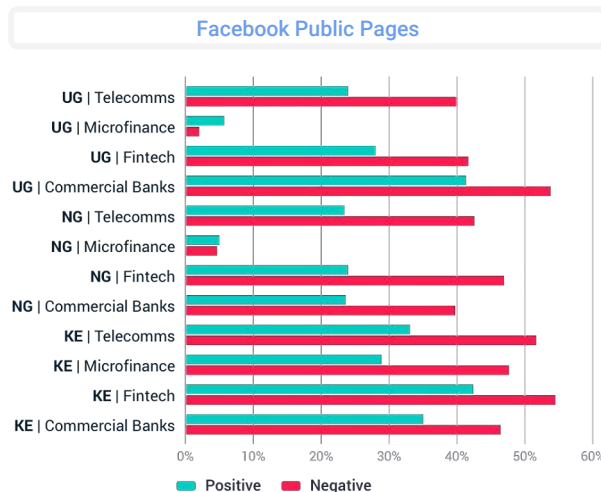
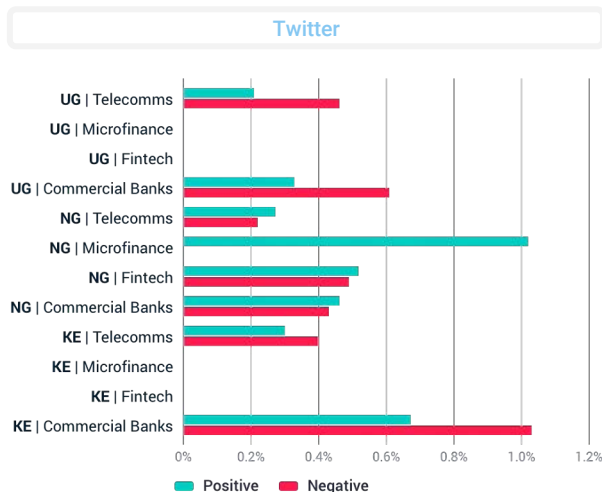
Responses of banks to primary tweets / Total of primary tweets

	Original tweets	Bank responses to original tweets	Rate
KE Fintech	1421	0	0%
KE Microfinance	214	0	0%
UG Fintech	209	0	0%
UG Microfinance	120	0	0%
NG MNO	54.624	146	0.27%
KE MNO	131.373	425	0.32%
UG MNO	20.095	77	0.38%
UG Com. Bank	11.970	53	0.44%
NG Com. Bank	289.030	1.302	0.45%
NG Fintech	61.786	338	0.55%
KE Com. Bank	62.826	488	0.78%
NG Microfinance	2.996	24	0.80%

By analyzing the reply rate by sentiment, we can see if there are differences in providers reply rate across positive and negative comments.

Response rate proxy by sentiment on Twitter, Facebook and Google Play

Number of responses of banks / Total of tweets, by sentiment, type of bank and country



- Regarding Twitter, in Telecoms and Commercial banks of Uganda and Kenya, there is a higher response rate of tweets with negative sentiment.
- On Facebook, there is a higher overall response rate for comments with negative sentiment.
- Uganda MNOs on Google Play stand out with a higher response rate for comments with negative sentiment.

4.6. How do financial providers publicly respond to consumers feedback? (cont.)

Financial providers' replies on Twitter are more concentrated on Customer Cares issues, while on Facebook and Google Play the number of replies is more evenly distributed across topics.

- Regarding Twitter, in Nigeria the providers' replies are mainly related to customer care issues. In Kenya and Uganda, the responses are more evenly distributed, although customer care also dominates.
- On Facebook, providers' responses are similarly distributed across the types of issues reported by users. A higher response rate towards lending, data privacy and operational failures in Kenya stands out.
- On Google Play, the financial providers seem to respond more to questions related to operational failures and simple negative feedback in Nigeria and Uganda. Kenya differs from the other countries, as there are more responses to positive feedback.

Response rate proxy on Twitter, Facebook and Google Play
Number of responses of banks / Total of tweets, by type of issue



Twitter and Facebook Public Pages types of issues legend:

Operational Failures Customer Care Fees & Charges Fraud Data Privacy Lending Advertising

Google Play Store reviews legend:

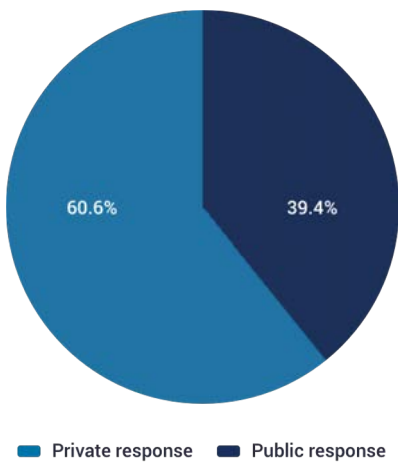
Operational Failures Positive Feedback Negative Feedback

4.7. How do financial providers publicly respond on Twitter?

Nigerian Commercial Banks, Fintech and Telecoms organizations tend to move to private responses more often than the rest of providers, suggesting a better and more structured customer care policy through social media channels.

- 'Publicly visible' response means the provider replied publicly. In the case of Twitter, we have been able to distinguish whether the provider answers directly or advises the client to move to direct message (DM).
 - Private response are those responses where some expressions* related to "direct message" have been mentioned
 - Public responses are considered those where these expressions have not been mentioned and, therefore, a response has been given in the moment in a publicly viewable manner

Type of provider responses on Twitter
Proportion of type of responses



Data source: Twitter

Type of provider responses on Twitter
Proportion of type of responses by type of bank and country

	Private response	Public response
UG Microfinance	0%	100%
KE Commercial Banks	28,84%	71,16%
NG Commercial Banks	84,01%	15,99%
UG Commercial Banks	26,09%	73,91%
KE Microfinance	0%	100%
UG MNOs	23,34%	76,66%
KE MNOs	31,32%	68,68%
UG Fintech	0%	100%
NG Fintech	62,86%	37,14%
NG Microfinance	47,37%	52,63%
NG MNOs	52,66%	47,34%
KE Fintech	0%	100%

Data source: Twitter

Nigeria, Commercial Banks, Customer Support
@OPay_NG all I've seen is talk and no action. To give a little clarity is hard. You refer me somewhere and they don't respond. Excruciatingly poor service from you. I need to find other options

Hi @OPay_NG, I apologize for the delayed response. please forward your enquiries to the OKash department via telephone 08097755512 and chat on whatsapp 09019099999, 09011577777 or send an email to support@ohhttp://kash.com as the team will be waiting to assist.

Nigeria, Commercial Banks, Customer Support
@ZenithBank this is the third time this month I will go days without being able transfer any money using my shortcode... Is this a new thing? So I can simply go and open another bank account, there's a pandemic and I shouldn't go out unless it's absolutely necessary... Fix this.

Kindly send us a private message to enable us review your complaint and assist appropriately. Thank you

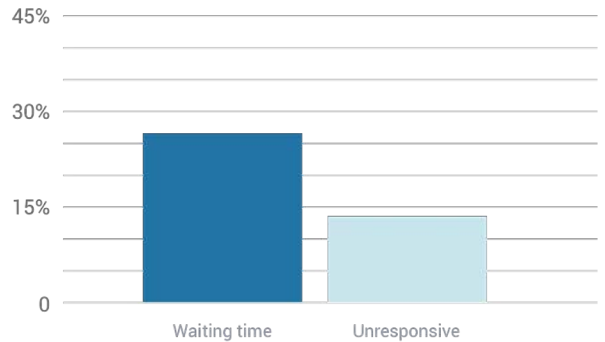
* The expressions are: DM, direct message, account number, transaction details, inbox, addressed, message

4.7. How do financial providers publicly respond on Twitter? (cont.)

Waiting times and lack of responsiveness are the most frequent complaints related to customer care.

- Customers use social media channels to explicitly complain about long waiting times to receive an answer or a call back regarding an issue previously reported.
- To a lesser extent, but also significant, are the complaints about a lack of response from financial providers, knowing the influence social media has on the reputation of companies.
- Across the three markets, Telecoms are the providers with the lowest proportion of unresponsiveness complaints. However, Telecoms and Commercial Banks have the highest rates of waiting time complaints across the three markets. After the COVID-19 pandemic outbreak, customers particularly complained about having to wait long times to receive a reply to a message sent through social media channels.

Most relevant customer care issues faced by consumers
Proportion of comments related to the most common customer care issues



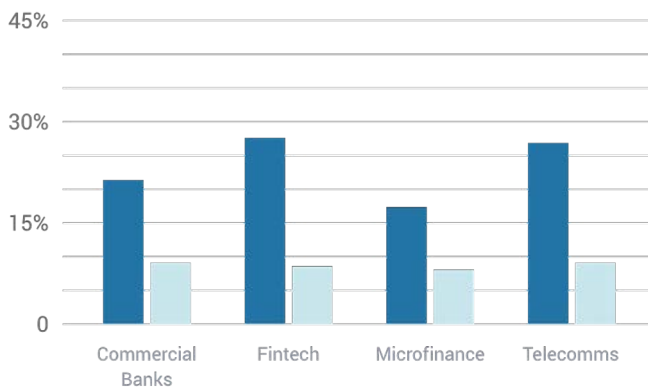
Nigeria, Commercial Banks, Customer Csre
@ZenithBank Its very sad your customer service has not been accessible. Spent 1hr waiting on call and no one is responding. This is barbaric.

Kenya, MNOs, Customer Care
Honestly how can this happen that 6 days later, a customer issue has not been resolved? Is this the @Safaricom_Care we know or something has happened in there?

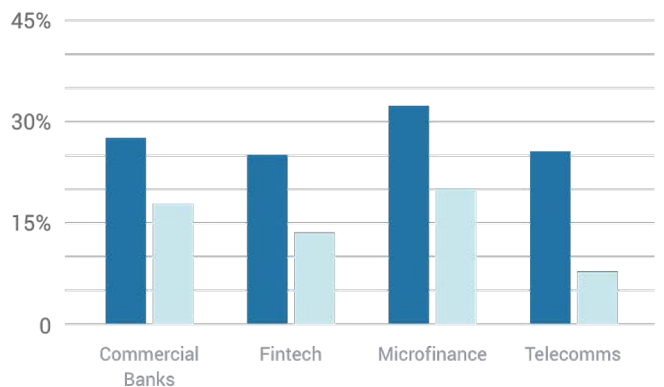
Customer care issues faced by consumers from different types of financial provider

Proportion of comments related to *waiting times* and *unresponsiveness* issues by financial provider and country

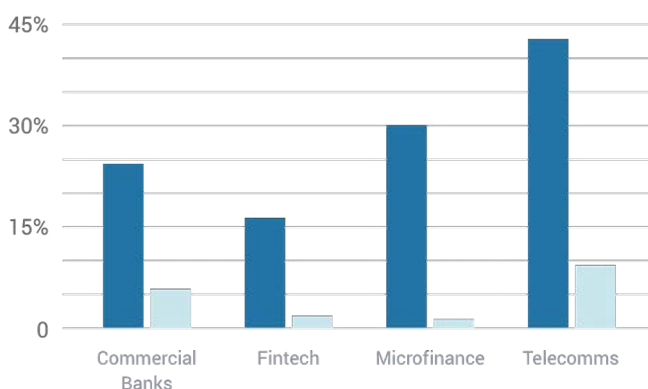
Kenya



Nigeria



Uganda



4.8. How do consumers complain about operational failures?

Transaction errors are the most frequently reported issues under operational failures across the three markets and the three social media channels.

- In general, Google Play Store reviews focus mainly on problems related to the App, especially failure to log-in and non-working features. In contrast, Twitter and Facebook Public Pages serve as channels to report a variety of different operational issues.
- Airtime and Internet data issues are more related with Telecoms across the three social media channels.
- Problems related to downtime of the digital channels or the App are mostly reported via Twitter and Google Play Store reviews.

Operational failures-related issues faced by consumers from different types of financial provider

Proportion of comments related to operational failures issues by financial provider on Twitter, Facebook and Google Play.



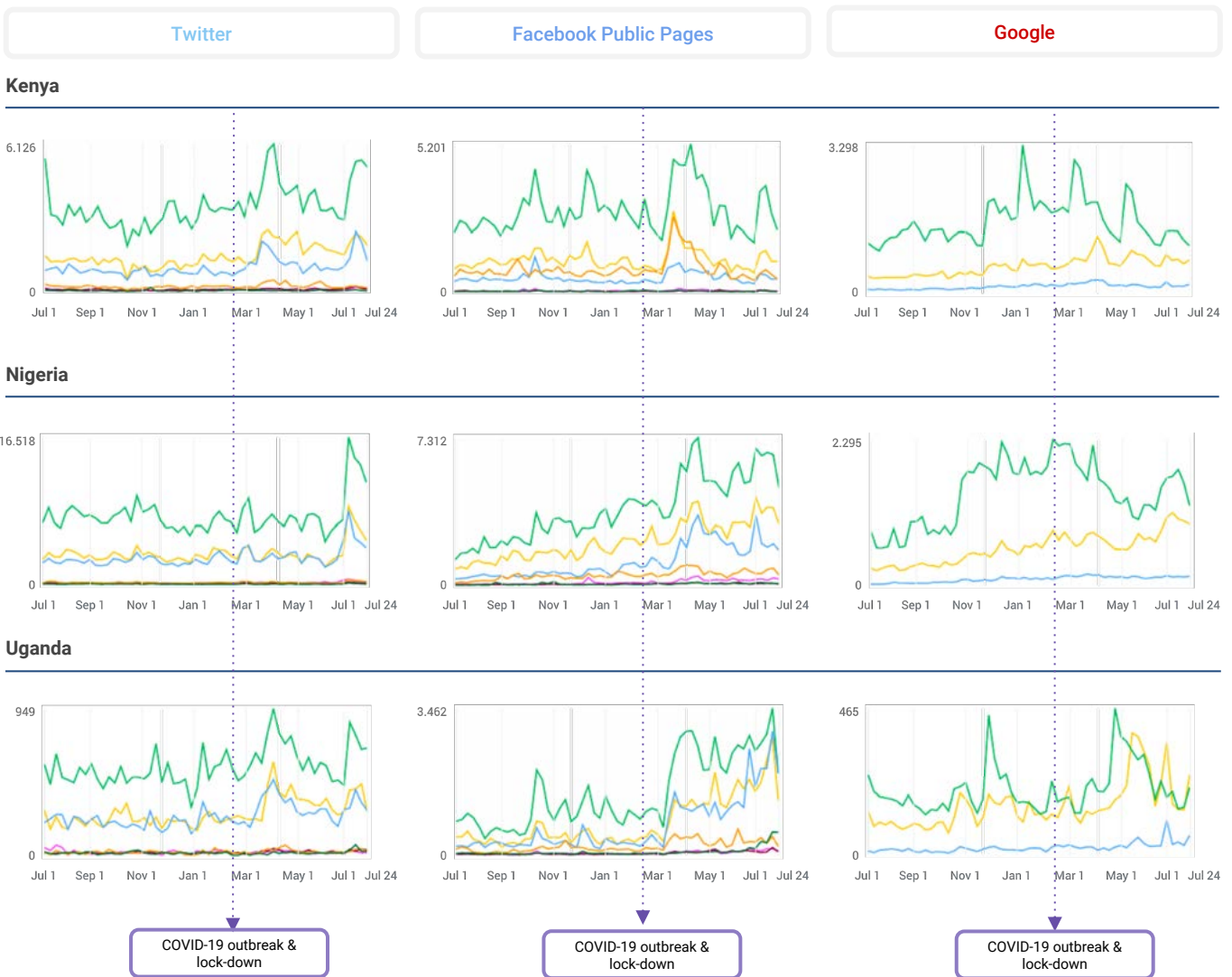
4.9. How has the COVID-19 pandemic affected the evolution of the conversation?

The usage of social media channels to communicate issues and interact with financial providers increased across the three markets after the breakout of the COVID-19 pandemic.

- In the 12 month period of this study, Nigeria and Uganda experience a rise in the volume of comments related to consumer protection issues compared to Kenya across the three social media channels. This rise is particularly visible after the COVID-19 outbreak. Possible explanations could be increased use of digital financial tools, and the need to find alternative means of communication with providers than office visits while movement restrictions apply.
- The larger increase in the number of comments on Facebook Public Pages after the pandemic outbreak compared to Twitter suggests that customers rely more on the former to communicate with their financial provider.
- Positive reviews on Google Play Store significantly decrease while the reporting of operational failures increases after April 2020 in Nigeria and Uganda. As more consumers have to rely on the App to operate, both operational failures may increase and so does the number of people ready to provide feedback.

Consumer protection issues faced by digital finance consumers differ by country

Proportion of Twitter, Facebook Public Pages and Google Play consumer protection comments by country



Twitter and Facebook Public Pages types of problems legend:

- Operational Failures
- Customer Care
- Fees & Charges
- Fraud
- Data Privacy
- Lending
- Advertising

Google Play Store reviews legend:

- Operational Failures
- Positive Feedback
- Negative Feedback

General increase in the volume of consumer protection-related comments addressed at Commercial Banks and Fintech organisations after the breakout of the Covid-19 pandemic.

- Commercial Banks experienced a higher increase in the number of operational failures reports with their App on Google Play Store reviews since the pandemic outbreak compared to other banks. This could be explained by an increase in the number of customers having to use the app for the first time and banks not being adequately prepared for such an increase in usage, thus yielding several operational failures. There could also be issues with staffing of customer care centers due to closing of call center locations.
- Telecoms and Fintech organisations see a rise in the interactions via Facebook Public Pages and a later increase in the number of reviews from Google Play Store users. Data suggests there is an increase in log-in problems to access one's personal account.

Consumer protection issues faced by digital finance consumers differ by type of financial provider

Proportion of Twitter Facebook Public Pages and Google Play consumer protection comments by type of financial provider



Twitter and Facebook Public Pages types of problems legend:

- Operational Failures
- Customer Care
- Fees & Charges
- Fraud
- Data Privacy
- Lending
- Advertising

Google Play Store reviews legend:

- Operational Failures
- Positive Feedback
- Negative Feedback

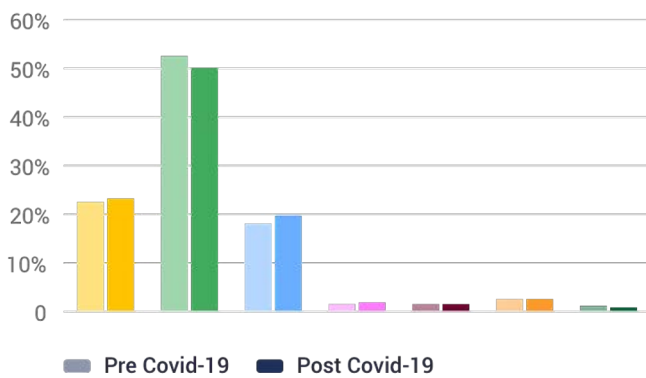
4.10. How has the conversation changed due to COVID-19?

Despite a clear increase in the volume of consumer protection-related comments, the distribution of issues has not been much affected.

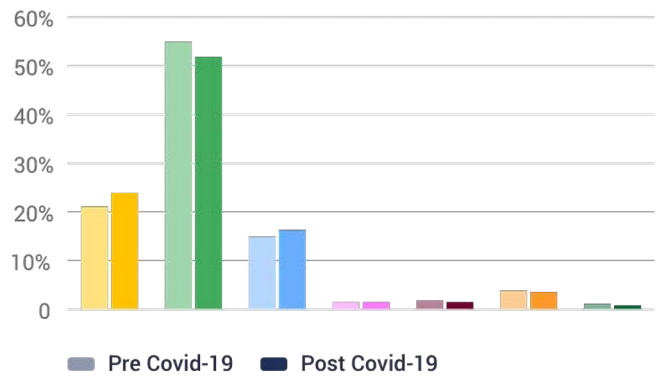
- The date used as the limit between pre and post COVID-19 is 14.02.2020 when the first case occurred in Africa.
- Operational failure reports and fees & charges complaints slightly increased after the breakout of the pandemic. Data suggests that after the COVID-19 outbreak, the proportion of comments related to operational failures with mobile money increased while reporting of ATM problems decreased, which aligns with the shift to digital transactions in many markets..

Changes in customer protection-related issues before and after the breakout of COVID-19
Proportion of Twitter comments by type of issue and country.

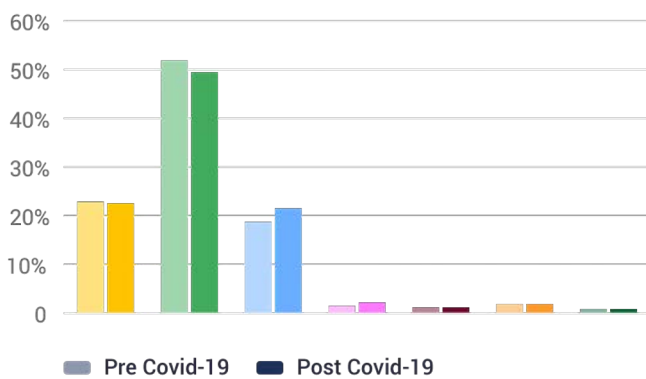
Three markets aggregated



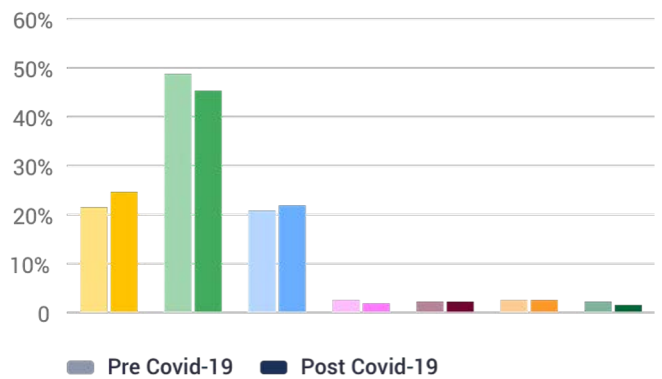
Kenya



Nigeria



Uganda



● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

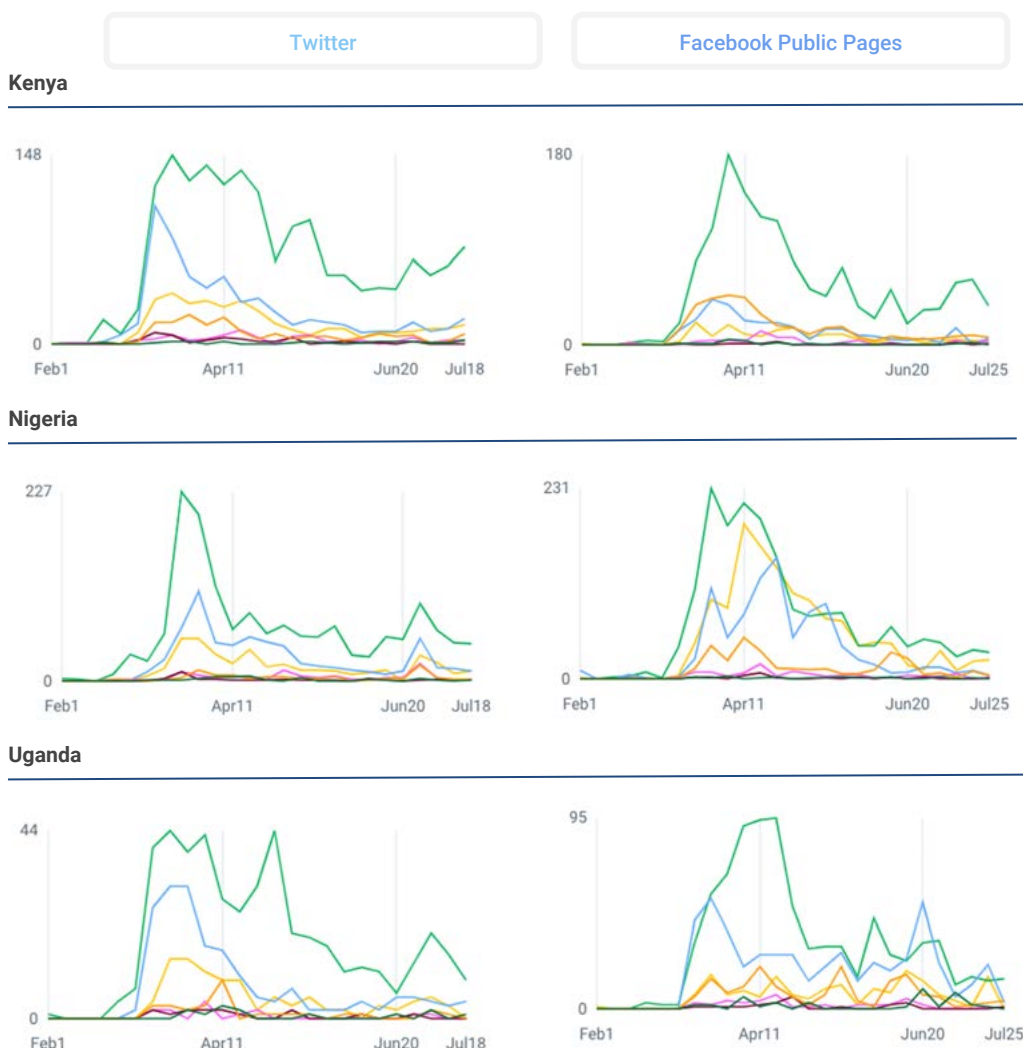
4.10. How has the conversation changed due to COVID-19?

Financial consumers have reacted to specific actions taken by providers related to COVID-19 pandemic, such as the reduction in transaction charges or money donation to social initiatives and the Government to fund the fight against the pandemic.

- We study the evolution of comments specifically mentioning “COVID-19” and “Coronavirus” * to provide further detail on how the pandemic has affected customers’ experiences. This analysis only applies to Twitter and Facebook Public Pages, as the volume of comments in Google Play Store reviews was too low to draw any meaningful conclusions.
- At the beginning of the pandemic in Kenya and Uganda, MNOs’ customers valued positively the reduction in charges applied to transactions such as mobile money payments, while they also asked to receive free or cheaper bundles of data during lockdown period. In Nigeria, customers complained about commercial banks donating money to the Federal Government instead of helping their customers directly.
- Regarding fees and charges, Nigerian customers specifically referring to COVID-19 complained of unexpected deductions and charges which they suspect the bank is using without their consent to fund the fight against COVID19.
- Comments specifically mentioning COVID-19 issues reveal customers’ annoyance of being asked to visit a branch to solve a problem or obtain some documents in times of social distancing and lockdown. This is particularly relevant for Commercial Banks.

Consumer protection issues faced by digital finance consumers differ by type of financial provider

Proportion of Twitter Facebook Public Pages and Google Play consumer protection comments by type of financial provider



Nigeria, Commercial Banks, Fees & Charges

@accessbank_help you people are mad... Who ask you to donate money for federal government bcus of Covid 19... Am not the curse of your misfortune,,, return all this stamp duty you're deducting from my account...your bank is so useless..

Kenya, Commercial Banks, Customer Care

Banks in kenya like absa bank can't email you a simple statement they advice you to go to the bank branches even during Covid-19 . "Kindly visit the nearest branch for clarification" Customer Service Team Leader This is called Digital Banking ? @AbsaKenya Up your game

4.11. How do consumer protection topics differ across locations?

A similar distribution of issues were reported across urban and rural areas, although customer care topics stand out in urban areas.

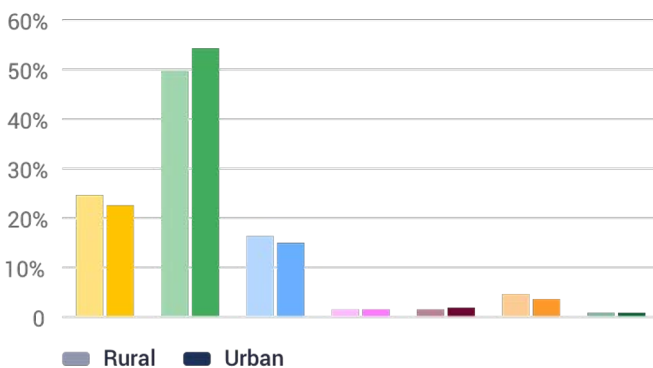
Citizens in rural areas tend to have more limited access to services compared to urban citizens. Financial access in rural areas has also lagged urban areas, although the digitization of financial services has boosted financial inclusion in these areas as well as urban locations. In looking at potential differences in customer care experiences reported in urban and rural areas, our results show that there are no large differences in the distribution of issues across urban and rural regions. Still, it is interesting to highlight that:

- In all three countries, customer care topics are more frequently discussed in urban areas.
- Operational failure issues are slightly more mentioned in rural areas of Kenya and Nigeria than urban locations in those two countries.

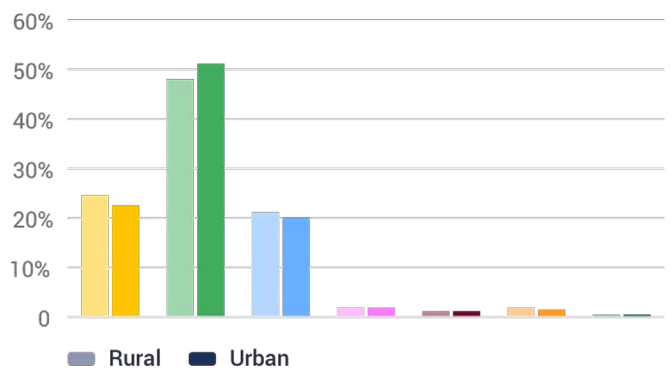
Type of issues faced by consumers from different regions

Proportion of Twitter comments by type of issue and region.

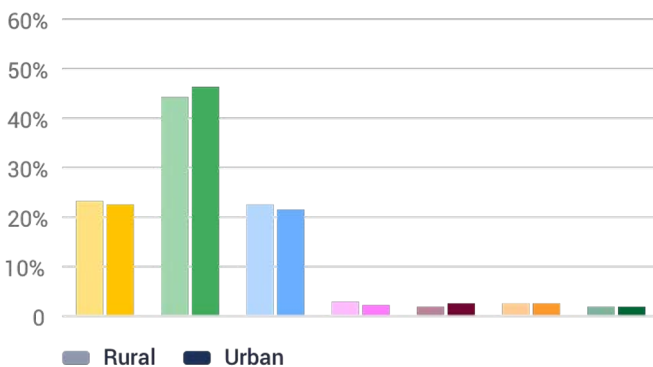
Kenya



Nigeria



Uganda



Urban and rural classification:

	Urban	Rural
Kenya	Nairobi Area, Mombasa, Kisumu	Other cities
Nigeria	Lagos, Kano, Ibadan, Abuja	Other cities
Uganda	Central region*	Other regions

Number of posts overall

	Urban	Rural
Kenya	143,846	21,615
Nigeria	255,200	109,985
Uganda	29,806	2,054

● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

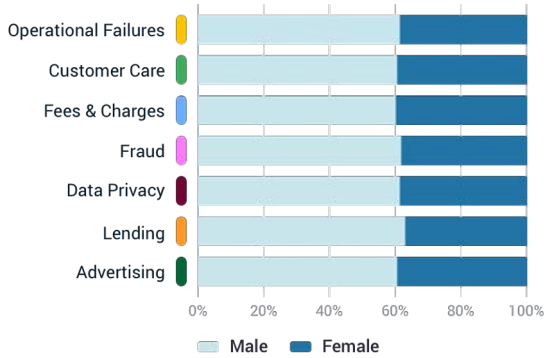
*The districts included in the Central region are Kampala, Takiso, Mubende, Mukono, Rakai, Luweero, Buikwe, Kayunga, Mityana, Lwengo, Masaka, Mpigi, Sembabule, Kalungu, Bukomansimbi, Nakaseke, Gomba, Nakasongola, Kyankwanzi, Kiboga, Butambala, Lyantonde, Buvuma and Kalangala.

4.12. Are there differences in complaints type by gender?

Men complain significantly more than women on Twitter*, while there are no significant differences in the distribution of issues reported.

Distribution of comments on different consumer protection issues reported by men and women

Proportion of Twitter comments made by men and women, by type of issue



The proportion of male active users in Twitter is, in general, higher than that of women in the countries studied. Thus, men's opinions tend to be over-represented in Twitter.

This fact could cause a representativity issue if the distribution of their comments across the various topics were different.

Looking into the distribution of comments by type of issue and gender, there are no significant differences. We can conclude that, regarding the issues reported, there is no differences between genders, with the exception of the COVID-19 specific observations discussed below.

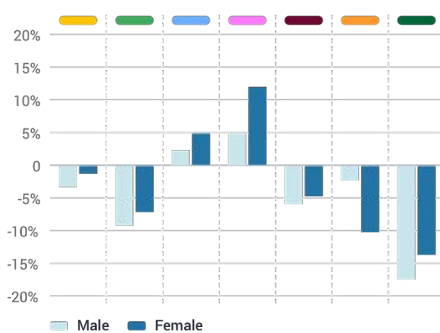
Interestingly, the rate of response of men and women has changed after the COVID-19 breakout.

- To better understand the gender distribution, we look at the variation rate in the proportion of Twitter comments made by men and women before and after the COVID-19 breakout in Sub-Saharan Africa in mid-March.
- Women in Nigeria have significantly increased their rate of complaints about fraud compared to men, while in Uganda operational failure reports from women have also risen.
- By contrast, in Kenya men have had a larger increase in the proportion of complaints than women during the pandemic.

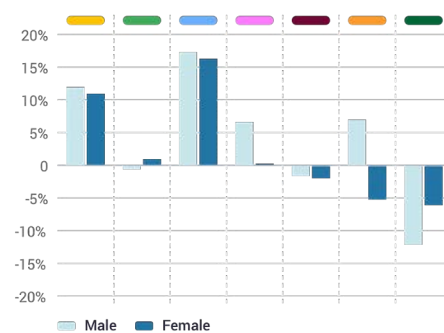
Changes after the Covid-19 breakout in the proportion of comments made by men and women on the different issues

Variation rate in the proportion of Twitter comments made by men and women after the Covid-19 breakout, by type of issue.

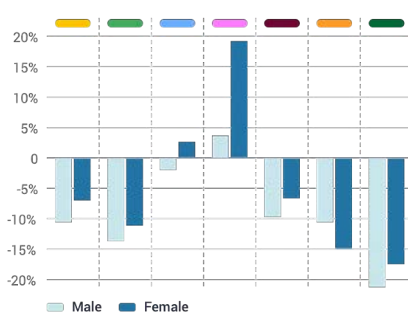
Three markets aggregated



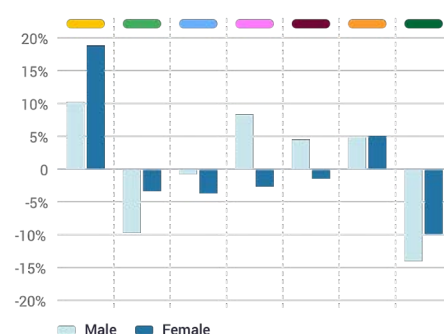
Kenya



Nigeria



Uganda



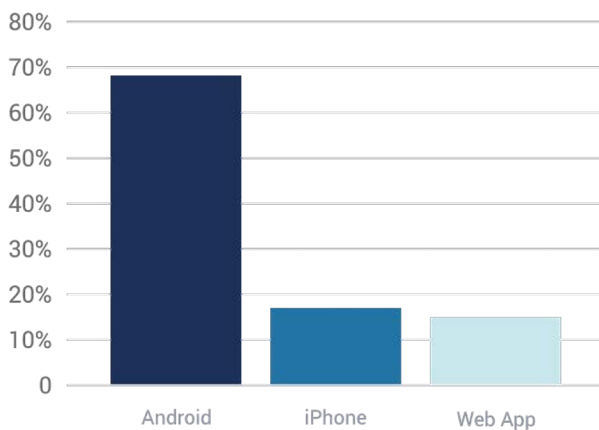
4.13. What device do consumers use on Twitter to send their comments?

Almost 70% of comments on Twitter are sent through Android devices. Commercial banks and Fintech stand out for having more comments sent from an iPhone.

- Distinguishing between customers who publish their feedback with Android smartphones, iPhone or Web App can act as a proxy of socio-economic level of digital finance customers using social media to interact with their providers. As the price for an iPhone tends to be higher than the average price of Android smartphones, we can assume that iPhone holders have higher earnings on average.
- The highest share of iPhone users, around 20%, is among Fintech and Commercial Banks' customers. Regarding types of issues reported, fees and charges and operational failures receive a higher share of comments sent from an iPhone.

Android mobile phones are the most used device to post on social media

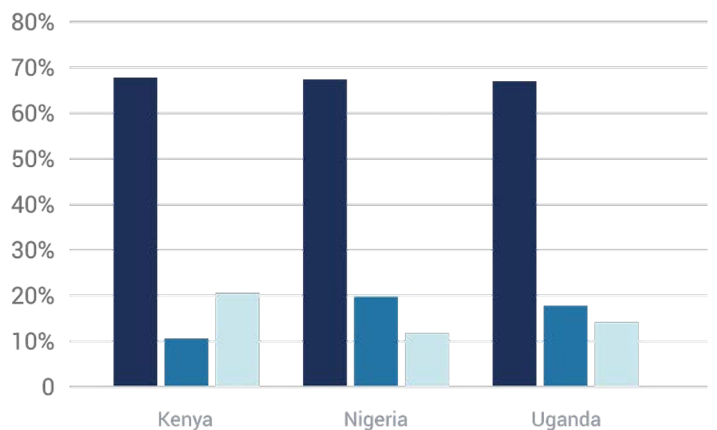
Proportion of comments by type of device



Data source: Twitter

Similar distribution of mobile device across countries

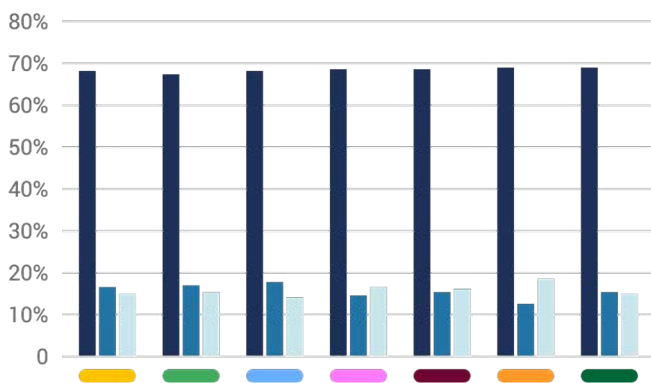
Proportion of comments by type of device and country



Data source: Twitter

Similar distribution of mobile device across issues

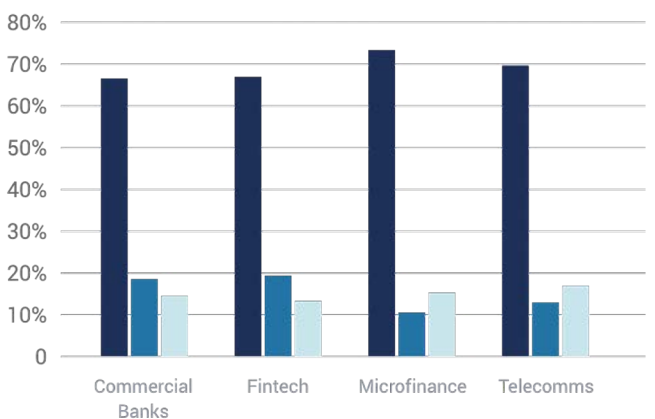
Proportion of comments by type of device and type of issue



● Operational Failures ● Customer Care ● Fees & Charges ● Fraud ● Data Privacy ● Lending ● Advertising

Distribution of mobile device across type of financial provider

Proportion of comments by type of device and type of financial provider



5. Conclusions

From this project, we see that digital feedback via social media could be used as a new, complementary tool for enhanced consumer protection monitoring. Customers' experiences that have been shared in the different social media channels are a relatively easy to access source of information with the potential of answering a questions regarding the types of issues facing different consumer segments and their provider, monitoring trends in near real-time, and assessing provider responsiveness to consumers. This project tested the utility of social media to monitor topics such as: What types of issues do customers encounter from different types of financial providers across countries? How do customers use social media channels differently to contact their provider? How has the Covid-19 pandemic affected consumer protection? Do socio-demographic differences play a role? Nevertheless, the analysis possibilities are immense and further investigations could provide more detailed answers on a wide range of consumer protection questions, especially with direct access to the providers' accounts and direct messaging.

Going forward, the key question for social media data analysis in consumer protection is who will make use of this data and methods going forward, and how will it benefit people? Based on experiences and interviews conducted throughout this project, as well as learnings from involvement in related initiatives, we believe there are several use cases for key stakeholders in the digital financial services ecosystem.

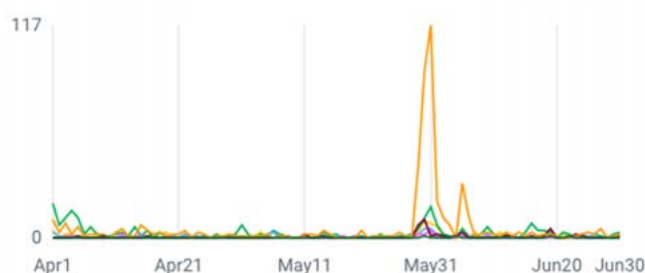
Regulators. Regulators are the primary stakeholders for turning consumer complaints into real-world improvements in consumer protection at the market level. Given the growing breadth of digital financial services and the use of social media channels to contact financial service providers, Regulators can apply new approaches that include automated tools for market monitoring that provide real-time statistics and early warning signs on action they should take. One of the principal benefits is the speed of issue detection (meaning issues can be addressed earlier, with the potential for more cost-effective interventions).

Regulators may make use of these tools in several ways:

- **Early warning alerts.** When there is a spike in complaints on a particular issue, provider, type of provider, or from a certain demographic segment, the regulator can be automatically alerted via email and then directly access the social media data to investigate further.

Spike in comments on customer care topics as consumers share their experience after political leader reports unethical practices from a Fintech company.

Number of daily comments by consumer protection issues addressed to Fintech companies



- As shown on page 11, it is possible to benchmark the number of complaints on a given topic and are 'underperforming' in protecting consumers. This could be used by regulators to prioritize their work with individual providers, or market segments.
- **Evidence-based strategy setting.** Looking over longer periods of time, the whole market, and benchmarking with other markets, regulators would be able to identify or validate strategic priorities for market improvements. For example, reply rates in our data show most complaints are left unanswered, especially those posted on Twitter, which is an area for improvement.

Financial Inclusion donor organizations. Organizations which have a mandate to ensure that the growth of financial services is in line with consumer protection and is socially responsible may also find that social media monitoring can provide evidence to inform or improve their impact work. As the digitalization of financial services accelerates after COVID-19, the importance of consumer protection in the digital space has a renewed importance.

While the benefits apparent for regulators may also apply here, this group of stakeholders could also benefit from these new approaches to support impact assessment. These tools may be complementary to existing impact assessment tools, since they enable broader coverage (geographic splits) and are continuous, rather than static. Moreover, conversations with these donors point to an interesting collaboration model. It may be that an assessment of consumer complaints could be added as a condition for financing. In this model, recipients of donor funding, such as financial service providers, may receive more or less favourable terms based on consumer protection KPIs measured by these new tools. Such conditions could also require that the providers share additional data sources (samples of their direct consumer complaints handling).

Research organizations. For research organizations like IPA, social media research can contribute to their research initiatives in a number of different ways. Adding new data sources, and providing real time data that is not limited to a number of pre-defined survey questions, can add value to a needs assessment exercise carried out before designing an experimental intervention. It also allows for the testing of new interventions quickly, after a particular problem is detected. For example, if we observe an increase in problems related to fraud in a particular context, this would allow for testing a fraud awareness campaign within a few days via social media channels, which would greatly reduce time to field and data collection costs. Finally, Natural Language Processing (NLP) can also be useful to analyse data collected in an experiment, such as open-ended questions and non-structured text from surveys, and contribute to building outcome indicators.

Financial consumers. An important stakeholder of social media information are financial consumers themselves. As we have seen in these three countries, digital communities begin to form around creating transparent information about providers, and we see the emergence of 'influencers' who are renowned for sharing qualitative stories about trust in providers. However, there is no 'global' overview of the market, only anecdotal evidence shared sporadically.

Through making this data public (e.g. through a dedicated website), such 'infrastructure' could make the opinions of consumers available and digestible to others in the market. This could have the expected effect of making consumers feel more empowered (encouraging more discussion of these topics), and increase the impetus on providers to improve their services through the pressure of transparency.

Technical learnings for future continuation. Across these types of stakeholders, through the experience of this project, we can also recommend a series of considerations that require careful consideration in continuing social media analysis and experimentation in the context of emerging market financial services:

- **Language agnosticism.** Human language is very rich and in some countries, like Kenya, Nigeria and Uganda, citizens speak a wide number of different languages, which often are combined with English or use local slang. This is a challenge for many text analytics tools which only use dictionary-based approaches and would not be suitable for this scenario. The algorithms applied to this project are language agnostic which was key to overcome the challenge of language richness.
- **Privacy and representativity.** Consumer data privacy is at the center of the projects, that is why data is always analysed in an aggregate form and anonymised. Representativity of the data is also an important issue for the interpretation of results. Participation rate is not always equal across genders, and this also happens in social media use. Other socio-demographic variables could also be imbalanced such as the rate of urban and rural customers. Therefore, it is important to take these variables into account and explore any potential differences to calibrate the results, as we did in this project.
- **Data access.** Access to certain data sources have higher restrictions imposed by their owners, such is the case of Facebook and Google Play Store. Data agreements with providers for their data are needed on a project basis. Exploring more stable channels of collaboration with big data owners can open up opportunities to broaden the use of this type of data and conduct a more detailed analysis on financial providers' reply rate.
- **Easy-to-use results.** When addressing regulators, policy makers and donors, it is important to provide easy-to-use technology and offer training for users in these organizations which gives them autonomy to manage it themselves.
- **Data cleaning tools to ensure quality.** Data cleaning and processing is always a key aspect in a data analysis project. When data is unstructured text, human language richness adds more challenges to this process. Thus, it is important to develop a procedure to detect noise and filter only relevant content. In this project, this process has consisted of several iterations where different sources of noise have been identified, such as spam users and commercial promotions or contests. Categorization relevance has also been achieved by a systematic training of the algorithm using seed words in the relevant languages. Finally, one last step is to distinguish the intentionality of complaints and requests of customers. This information would be useful to measure the level of disappointment of customers, which can serve as a proxy to rank financial providers. This analysis is currently under research and could be applied in future projects.

6. Appendix

6.1. List of financial providers

KENYA

List of financial providers

	Name	Type		Name	Type
1	ABSA (Timiza)	Commercial Bank	23	Stanbic Bank Ltd	Commercial Bank
2	Absa Bank Limited	Commercial Bank	24	Standard Chartered Bank (K) Ltd	Commercial Bank
3	African Banking Corp. Ltd	Commercial Bank	25	Transnational Bank Ltd	Commercial Bank
4	Bank of Africa Kenya Ltd	Commercial Bank	26	Alternative Circle (Shika)	Fintech Company
5	Co-operative Bank of Kenya Ltd	Commercial Bank	27	Bayes	Fintech Company
6	Cooperative Bank (MCo-op Cash)	Commercial Bank	28	Okash	Fintech Company
7	Diamond Trust Bank	Commercial Bank	29	Okolea	Fintech Company
8	Diamond Trust Bank (K) Ltd	Commercial Bank	30	Opalquick	Fintech Company
9	Ecobank Limited	Commercial Bank	31	Scoppe	Fintech Company
10	Equitel	Commercial Bank	32	Shika App	Fintech Company
11	Family Bank (PesaPap)	Commercial Bank	33	Tala	Fintech Company
12	Family Bank Ltd	Commercial Bank	34	Zenka	Fintech Company
13	First Community Bank Ltd	Commercial Bank	35	Zidisha	Fintech Company
14	I & M Bank Ltd	Commercial Bank	36	HF Group (HF Whizz)	Fintech Company
15	Jamii Bora Bank Ltd	Commercial Bank	37	Faulu Microfinance Bank Limited	Microfinance
16	KCB Bank Kenya Ltd	Commercial Bank	38	SMEP Microfinance Bank Limited	Microfinance
17	National Bank of Kenya	Commercial Bank	39	Uwezo Kash	Microfinance
18	National Bank of Kenya Ltd	Commercial Bank	40	Airtel money	Telecomm Company
19	NCBA Bank Kenya	Commercial Bank	41	M-PESA	Telecomm Company
20	NIC Bank – Mobile Loan	Commercial Bank	42	Telekom T-kash	Telecomm Company
21	SBM Bank (Kenya) Ltd	Commercial Bank	43	KCB M-Pesa (Kenya Commercial Bank)	Telecomm Company
22	Sidian Bank	Commercial Bank			

6. Appendix

6.1. List of financial providers

NIGERIA

List of financial providers

	Name	Type		Name	Type
1	Flash Me Cash (FCMB)	Commercial Bank	34	PiggyVest	Fintech Company
2	First City Monument Bank Plc	Commercial Bank	35	FastLoan by Fidelity Bank	Fintech Company
3	AccessMobile (Access Bank)	Commercial Bank	36	JumiaPay Nigeria	Fintech Company
4	Diamond Y'ello	Commercial Bank	37	Palm Finance (PalmPay)	Fintech Company
5	Access Bank Plc	Commercial Bank	38	PocketMoni (ETranzact)	Fintech Company
6	FIRST BANK NIGERIA LIMITED	Commercial Bank	39	Fundit Nigeria	Fintech Company
7	GTBank Mobile Money mWallet	Commercial Bank	40	Flutterwave	Fintech Company
8	Eazymoney (Zenith Bank)	Commercial Bank	41	PayAttitude	Fintech Company
9	Fidelity Bank Plc	Commercial Bank	42	KiaKia	Fintech Company
10	United Bank For Africa Plc	Commercial Bank	43	Cowrywise	Fintech Company
11	Ease Wallet (Stanbic IBTC)	Commercial Bank	44	Paystack	Fintech Company
12	Stanbic IBTC Bank Ltd.	Commercial Bank	45	Kongapay	Fintech Company
13	Ecobank Mobile Money	Commercial Bank	46	KoloPay (Mykolo Tech Finance)	Fintech Company
14	Ecobank Nigeria Plc	Commercial Bank	47	KoboPay	Fintech Company
15	Wema Bank Plc	Commercial Bank	48	Baxi Mobile	Fintech Company
16	ChatPay (OnePay)	Commercial Bank	49	WalletsAfrica (Wallet.ng)	Fintech Company
17	Sterling Bank Plc	Commercial Bank	50	Sokoloan	Fintech Company
18	Polaris Bank	Commercial Bank	51	Fetswallet (FETS)	Fintech Company
19	Alat by WEMA	Commercial Bank	52	ReadyCash (Parkway Projects)	Fintech Company
20	Union Bank of Nigeria Plc	Commercial Bank	53	Quickteller (Interswitch)	Fintech Company
21	Standard Chartered Bank Nigeria Ltd.	Commercial Bank	54	Kegow (Chams Mobile)	Fintech Company
22	Globus Bank Limited	Commercial Bank	55	Carbon	Fintech Company
23	Unity Bank Plc	Commercial Bank	56	Kudi	Fintech Company
24	Key Stone Bank	Commercial Bank	57	RenMoney	Fintech Company
25	Heritage Banking Company Ltd.	Commercial Bank	58	SwiftCreditNg	Fintech Company
26	Jaiz Bank	Commercial Bank	59	FairMoney	Fintech Company
27	Providus Bank	Commercial Bank	60	KwikPayCredit	Fintech Company
28	Zenith Bank Plc	Commercial Bank	61	PayCentre	Fintech Company
29	SPECTA (by Sterling Bank)	Commercial Bank	62	Fortis Mobile Money	Microfinance
30	FirstMonie (First Bank)	Commercial Bank	63	Nirsal Microfinance Bank	Microfinance
31	SunTrust Bank Nigeria Limited	Commercial Bank	64	Airtel Money	MNO
32	Taj Bank (Non-interest bank)	Commercial Bank	65	GloXchance (GloMobile)	MNO
33	Opay (PayCom)	Fintech Company			

6. Appendix

6.1. List of financial providers

UGANDA

List of financial providers

	Name	Type		Name	Type
1	Afriland First Bank Uganda Limited	Commercial Bank	18	NC Bank Uganda Limited	Commercial Bank
2	Centenary Rural Development Bank Limited	Commercial Bank	19	Opportunity Bank Uganda Limited	Commercial Bank
3	Stanbic bank	Commercial Bank	20	Orient Bank Limited	Commercial Bank
4	Absa Bank Uganda Limited	Commercial Bank	21	Tropical Bank Limited	Commercial Bank
5	Dfcu Bank Limited	Commercial Bank	22	Post bank	Commercial Bank
6	Diamond Trust Bank Uganda Limited	Commercial Bank	23	MTN MoKash	Fintech
7	Equity bank	Commercial Bank	24	Airtel Wewole	Fintech
8	Standard Chartered Bank Uganda Limited	Commercial Bank	25	M-sente	Fintech
9	Housing Finance Bank Uganda Limited	Commercial Bank	26	M-cash	Fintech
10	United Bank for Africa Uganda Limited	Commercial Bank	27	UGAFODE Microfinance Limited (MDI)	Microfinance
11	Bank of Africa Uganda Limited	Commercial Bank	28	BRAC Uganda Bank Limited	Microfinance
12	ABC Capital Bank Uganda Limited	Commercial Bank	29	Tugende	Microfinance
13	Ecobank Uganda Limited	Commercial Bank	30	MTN	MNO
14	Exim Bank Uganda Limited	Commercial Bank	31	Airtel	MNO
15	Finance Trust Bank Uganda Limited	Commercial Bank	32	Africell	MNO
16	Guaranty Trust Bank Uganda Limited	Commercial Bank	33	Smile	MNO
17	KCB Bank Uganda Limited	Commercial Bank	34	UTL	MNO

6. Appendix

6.2. Types of issues faced by consumers, by country and type of financial provider

Twitter data

KENYA							
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
Commercial Banks	18%	66%	7%	2%	1%	5%	1%
Fintech	14%	31%	11%	4%	4%	45%	0%
Microfinance	23%	57%	6%	2%	1%	10%	2%
Telecoms	16%	63%	12%	2%	3%	3%	1%
NIGERIA							
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
Commercial Banks	19%	58%	16%	2%	2%	2%	1%
Fintech	20%	60%	13%	2%	1%	3%	1%
Microfinance	46%	37%	12%	1%	1%	3%	1%
Telecoms	15%	65%	11%	2%	3%	2%	2%
UGANDA							
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising
Commercial Banks	18%	69%	6%	2%	1%	3%	1%
Fintech	15%	61%	17%	1%	2%	1%	3%
Microfinance**	16%	58%	11%	1%	1%	13%	0%
Telecoms	15%	59%	18%	2%	2%	2%	2%

6. Appendix

6.2. Types of issues faced by consumers, by country and type of financial provider

Facebook data

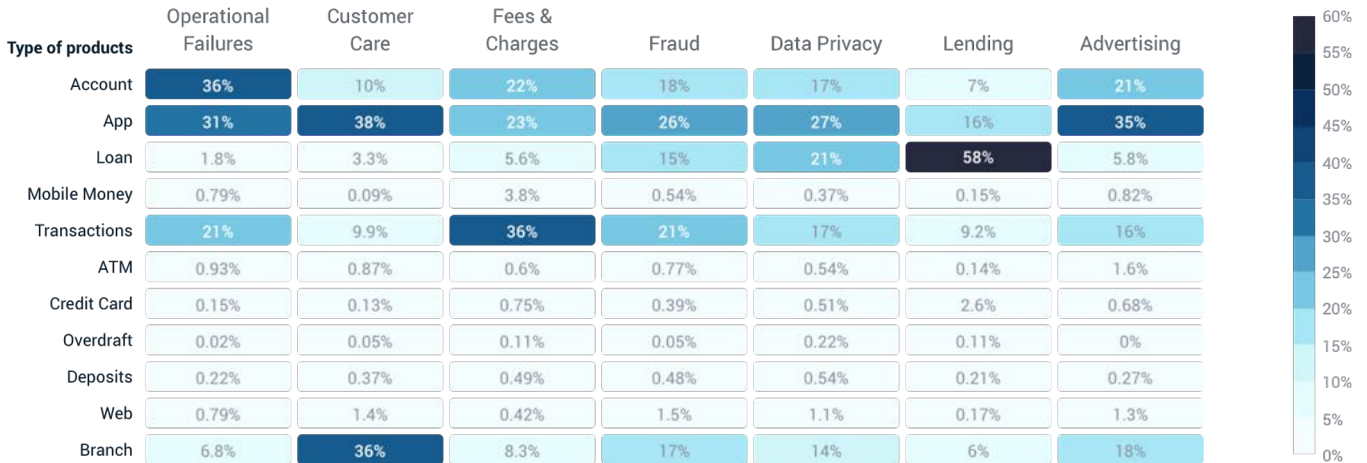
KENYA								
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising	
Commercial Banks	20%	55%	8%	1%	1%	14%	1%	
Fintech	13%	66%	5%	1%	1%	17%	1%	
Microfinance	13%	66%	5%	1%	1%	17%	1%	
Telecoms	16%	63%	12%	2%	3%	3%	1%	
NIGERIA								
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising	
Commercial Banks	29%	48%	15%	2%	1%	7%	1%	
Fintech	21%	52%	9%	2%	1%	7%	1%	
Microfinance	23%	52%	6%	3%	2%	23%	2%	
Telecoms	27%	52%	22%	2%	3%	2%	2%	
UGANDA								
	Operational Failures	Customer Care	Fees & Charges	Fraud	Data Privacy	Lending	Advertising	
Commercial Banks	20%	63%	9%	8%	1%	3%	1%	
Fintech	19%	40%	35%	2%	1%	4%	3%	
Microfinance**	13%	52%	7%	1%	1%	27%	1%	
Telecoms	24%	34%	33%	3%	2%	4%	4%	

6. Appendix

6.3. Types of product and issues faced by consumers, by country

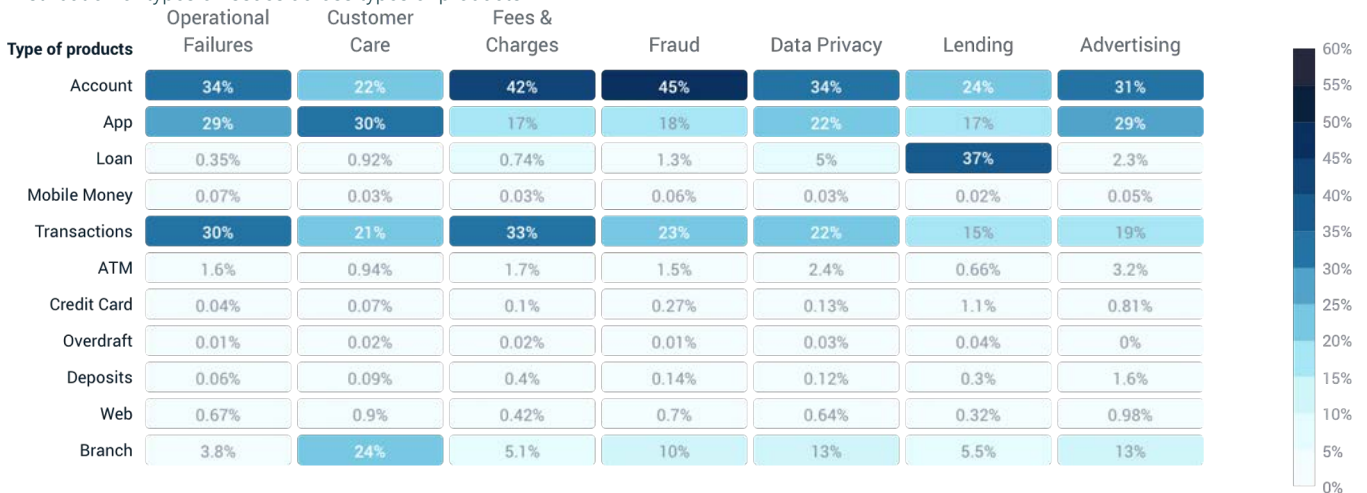
Most common products affected by the different types of issues - Kenya

Distribution of types of issues across types of products.



Most common products affected by the different types of issues - Nigeria

Distribution of types of issues across types of products.



Most common products affected by the different types of issues - Uganda

Distribution of types of issues across types of products.

