

Expert Policy Research Article

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## *Technology, Artificial Intelligence and Chargeback Regulations:*

*A Path to Small Business  
Protection in Nigeria*

### Summary

With the sudden increase in chargeback disputes arising in Nigeria, small businesses are left at a disadvantage. These disputes lead to loss of revenue, operational disruptions and legal complexities. This paper explores the role of technology and artificial intelligence in creating an effective regulatory framework that balances consumer protection with rights of small businesses. By leveraging machine learning algorithms, and other Artificial Intelligence (AI) tools, small businesses can proactively identify fraudulent transactions, improve compliance, and reduce financial vulnerabilities. The legal consequences of AI tools in the financial sector are also examined ensuring ethical deployment of AI.

This research also examines the current regulatory framework governing chargeback disputes and addresses the current policy gaps in these regulations. It advocates for policy reforms that integrate AI-driven

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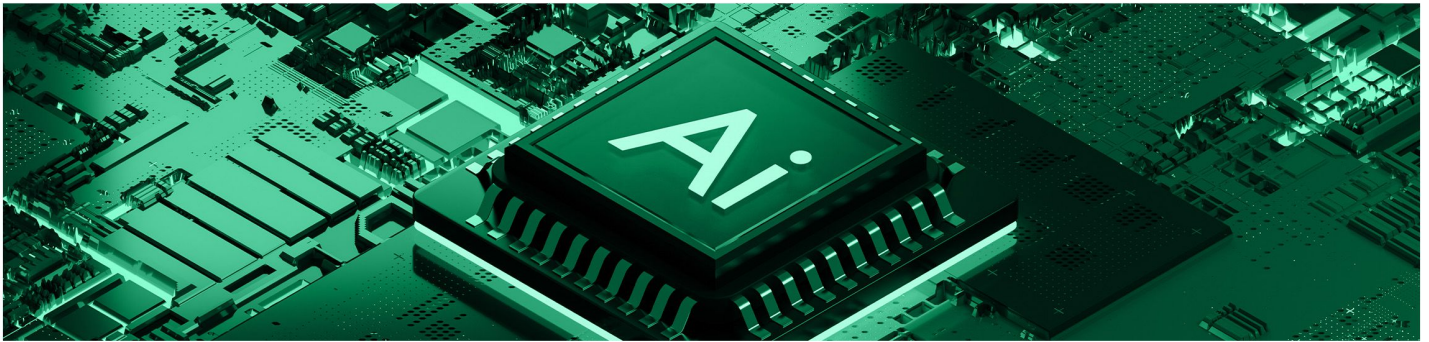
verification methods, promotes transparency in Online Dispute Resolution (ODR), and establishes procedures small businesses can use to address chargeback disputes before they arise. The findings suggest that a technology-driven approach to chargeback regulations can foster economic resilience, innovation, and fairness in digital commerce.

### Introduction

Nigeria has become a hub for the diaspora and international visitors during December, a period often referred to as “Detty December.” This time is marked by lively celebrations, increased tourism, and significant spending on gifts, food, and entertainment, making it a peak season for commerce. According to a report by MO Africa Company Limited, the tourism and entertainment sector in Lagos achieved a record-breaking revenue of N111.5 billion in December of 2024.<sup>2</sup> This impressive revenue is largely facilitated by the increasing

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<sup>2</sup> Olusegun Koiki, ‘Weak Currency Reason For Success of Detty December in Lagos’ (Independent, 2025) < <https://independent.ng/weak-currency-reason-for-success-of-detty-dece-mber-in-lagos-travel-expert/> > accessed January 19, 2025.



of international cards, which are now widely accepted in stores, ATMs, and restaurants across Nigeria. Furthermore, the evolution of e-commerce in Nigeria has empowered many small businesses to adopt various electronic payment systems, driving economic growth.<sup>3</sup> However, after this festive period, small businesses are increasingly burdened by chargeback disputes initiated by customers using international bank cards. The Nigerian banking system is often unable to compete with foreign financial institutions in resolving these disputes, leaving small businesses at a disadvantage. These disputes not only lead to financial losses but sow seeds of distrust in Nigeria's growing e-commerce ecosystem. This paper seeks to explore the intersection of Artificial Intelligence (AI), technology and chargeback dispute regulations, proposing legislative measures and the use of AI to protect small businesses from the adverse effects of chargeback disputes. This paper addresses the gap in regulatory frameworks with the aim of fostering a fair and sustainable

environment for small businesses operating within Nigeria's digital economy through technology and AI.

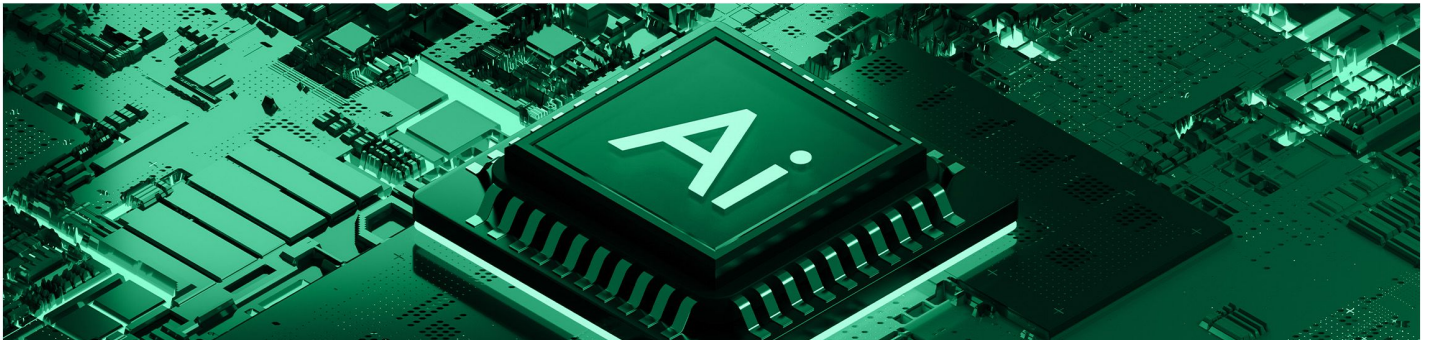
## **2. The Impact of Chargeback Disputes on Small Businesses in Nigeria**

A chargeback is often likened to a 'financial boomerang.'<sup>4</sup> It occurs when a payment is reversed, returning the payment funds to a debit or credit card after a customer disputes a transaction. When a chargeback is requested, the card issuer evaluates whether the cardholder be refunded. The process of a chargeback differs, but on a basic level a customer requests a chargeback and the bank validates it, funds are then taken from the seller's account and returned to the customer with the possibility of the merchant being able to challenge the chargeback.<sup>5</sup> Chargebacks traditionally increase in the first quarter of the year, as consumers review their finances, experience post-purchase regrets, or seek refunds for products already used. January and February are typically the months

<sup>3</sup> Rotimi Okungbaye, 'Flutterwave Merchants In Nigeria Can Now Accept Payments From American Express Card Members' (Flutterwave, 2024) < <https://flutterwave.com/us/blog/flutterwave-merchants-in-nigeria-can-now-accept-payments-from-american-express-card-members> > accessed January 19, 2025.

<sup>4</sup> Aniket Gupta, 'Chargebacks: Demystified for Indian Businesses' (XPayCheckout, 2024) < <https://www.xpaycheckout.com/blog/chargebacks-demystified-for-indian-businesses> > accessed January 19, 2025.

<sup>5</sup> Ibid



when chargebacks peak.<sup>6</sup>

As Nigeria continues to emerge as a major player in Africa e-commerce, many customers are shifting away from traditional payment methods like cash and embracing more modern options such as bank transfers, debit cards, and digital wallets. This shift is further fueled by Nigeria's growing appeal to both the diaspora and international tourists. However, this trend has led to an increase in chargeback disputes for small businesses, which raises cause for concerns about financial losses, disruptions to cash flow, and the added administrative burden that could undermine operations. A rising issue in Nigeria is "friendly fraud", often called chargeback fraud. This occurs when a customer or cardholder identifies a legitimate purchase for goods or services on their transaction statement as fraudulent and disputes it with the card issuer or financial institution.<sup>7</sup>

The impact of chargebacks fraud on small businesses in Nigeria cannot be underestimated. These businesses face financial losses including the loss of the goods or services which have been provided, as well as additional costs such as logistics and administrative fees. The rise in chargeback disputes drives small businesses away from digital transactions, forcing them to revert to cash payments as the safest option. This undermines the potential of e-commerce as there is a general lack of trust and integrity amongst those needed to foster its growth. Small businesses operating on digital platforms are also at risk, as frequent chargebacks can lead to the suspension of their accounts, leaving them unable to generate revenue. Some digital platforms may also increase processing rates if a business is faced with a high number of chargebacks.<sup>8</sup> Often with limited resources, small businesses struggle to navigate the complexity of the chargeback process, which leads to further operational difficulties. Small businesses also may not obtain appropriate documentation at

<sup>6</sup> Monica Eaton, 'Holiday Shopping Boom of 2024 May Lead to Increased Returns & Chargebacks IN Q1 2025' (Monica EC, 2025) < <https://monicaec.com/holiday-shopping-boom-of-2024-may-lead-to-increased-returns-chargebacks-in-q1-2025/> > accessed January 19, 2025.

<sup>7</sup> Jessie Stiner, 'Fighting Friendly Fraud and Winning More Chargebacks' (Touchnet, 2024) < <https://www.touchnet.com/trends/blog/2024/01/30/fighting-friendly-fraud-and-winning-more-chargebacks> > accessed January 29, 2025.

<sup>8</sup> Claire Sy, 'What is a Chargeback and How to Handle Them for Your Small Business' (Web, 2024) < <https://www.web.com/blog/chargeback/> > accessed January 19, 2025.



the time of sale, hence making it increasingly difficult to provide evidence need to win a chargeback dispute.

### 3. The Role of Technology and Artificial Intelligence in Regulating Electronic Payment Systems

The rise of technology has been instrumental in transforming Nigeria's economy, particularly in digital payments. Digital payment platforms such as mobile wallets, point-of-sale (POS) systems and bank transfers have enabled small businesses to access broader markets by facilitating cross-border transactions, even in remote areas. The Central Bank of Nigeria (CBN) introduced the POS system and agent banking to develop a cashless economy. This cashless policy also introduced more financial technology platforms such as Paystack, Flutterwave, Interswitch Webpay and so on. These technologies have offered a lifeline for businesses that have historically been operating on a cash-centric model.<sup>9</sup> Through these digital payment platforms, international customers have been able to offer secure and convenient payment solutions. These technological advancements empower small

businesses in Nigeria to compete globally and improve customer experiences using data analytics, automated invoices, and instant payment notifications.<sup>10</sup>

Despite the growth in digital payments, there is a need for clear, comprehensive regulations to govern these systems in Nigeria to prevent potential abuse. Over the years, the CBN has pushed for the promotion of an efficient and effective system of transactions, including for the development of electronic payment systems.<sup>11</sup> However, there is still a lack of standardized regulations, particularly in cross-border transactions, which leaves businesses susceptible to fraud, chargeback disputes, and unregulated market practices. Furthermore, a regulatory gap occurs as electronic payment attracts international cards, and the use of e-commerce platforms further complicates regulatory landscape. Chargeback processes are manual and labor-intensive, most banks or card operators make use of human resources for individually reviewing extensive documentation, which is time consuming, prone to errors, vastly

<sup>9</sup> Ademola Abimbola, 'The Rise of Fintech: How Digital Payments are Transforming Nigeria's Economy' (Mauco, 2024) < <https://mauonline.net/fintech-digital-payments-in-nigeria/> > accessed January 19, 2025.

<sup>10</sup> Celestine Onyejiuwa, 'Navigating Digital Payment Adoption by SMEs in Nigeria' (Medium, 2023) < <https://medium.com/@Celheinstino/navigating-merchant-digital-payment-adoption-in-nigeria-lade7fc8cba5> > accessed January 19, 2025.

<sup>11</sup> Section 47(2) of the Central Bank of Nigeria (Establishment) Act 2007, The CBN's mandate '... to promote and facilitate the development of an efficient and effective system for the settlement of transactions (including the development of electronic payment systems).'



inconsistent and often making decisions in favor of the defaulting party. These challenges show the need to pivot to more effective and efficient solutions in this process.<sup>12</sup> AI in digital payments varies greatly across the different platforms. It is particularly useful in detecting fraud or significant threat, capable of causing harm to businesses.

A system using AI works faster than manual processes and learns evolving fraud tactics. Through Machine Learning (ML), algorithms trends and patterns in chargebacks can be closely monitored making it easier to detect fraudulent behavior over time. AI algorithms are trained on a broad range of customer patterns by being exposed to a wide spectrum of customer behavior. It then generates and converts key features into predictive variables that will in effect predict whether a customer is likely engaging in friendly fraud.<sup>13</sup> If it discovers the likelihood of a customer engaging in non-legitimate chargeback disputes, it dismisses the complaint. If it finds that the chargeback dispute is of legitimate concern, it escalates the matter to a human for oversight.

This helps to ensure frivolous complaints are thrown out and more time is given to real complaints. AI is useful in analyzing large datasets in real time, this process makes recognizing patterns across transactions, and in detecting anomalies that often signal fraud. Though controversial, AI chatbots have been proven to adapt to various issues, especially in the financial sector. By leveraging natural language processing and machine language, chatbots enhance experience by promptly answering customer queries, streamlining manual processes, gathering necessary documentation and so on. These bots serve to automate the process of assessing the legitimacy of a chargeback dispute by asking clarifying questions or analyzing past transaction history of customers. AI chatbots will prevent false claims from escalating and disputes will be resolved quickly.

#### **4. The Legal Framework for Chargebacks in Nigeria: Policy Gaps**

The handling of chargeback disputes is primarily governed by the Central Bank of Nigeria (CBN). In 2011, CBN released the E-Payment Dispute Arbitration Framework. The objective of the Arbitration Framework is

<sup>12</sup> Tanya, 'What are Chargebacks and How Can AI Help Prevent Them' (TrueDecision, 2024) <  
<https://trustdecision.com/resources/blog/what-are-chargebacks-how-ai-pr-event-them> > accessed January 19, 2025.

<sup>13</sup> Mohamed Zaki, 'Using AI to Track How Customers Feel - In Real Time' (Harvard Business Review, 2021) <  
<https://hbr.org/2021/05/using-ai-to-track-how-customers-feel-in-real-time> > accessed January 29, 2025.



providing speedy redress to E-Payment Dispute complaints without the involvement of the courts.<sup>14</sup> The framework covers untreated complaints (complaints involving a payment card that a cardholder has reported to the issuer) and unsatisfied responses (any fraud or dispensing error involving a payment card that a cardholder has reported to the issuer). In 2020, the CBN issued a circular reducing the chargeback cycle for ATM, POS, and web transactions from 72 hours to 24 hours. However, it appears that the existing chargeback regulations are primarily designed to protect consumers, often placing burdens on small businesses. For instance, in 2023, Interswitch reportedly lost N30 billion to chargeback fraud, indicating a system designed to favor customers, not businesses.<sup>15</sup> This consumer-centric approach leads to significant financial and reputational challenges for small businesses, including loss of revenue and damaged relationships with payment processors. Addressing this policy

gap is essential to create a more balanced framework that safeguards the interests of both customers and merchants. Implementing measures that consider the unique challenges by small businesses can help foster a fairer and more sustainable business environment in Nigeria.

### **5. The Legal Implications of AI in Chargeback Disputes**

The integration of AI into financial services, particularly in handling chargeback disputes, presents several legal implications within Nigeria's regulatory framework. It is commonly known that high quality data will be needed to develop and train models, this is needed to test the efficacy. However, there is potential for bias when detecting patterns of friendly fraud in customers. AI systems across the board are capable of recreating biases created by human decisions.<sup>16</sup> There is concern that card issuers may exhibit bias by disproportionately flagging Nigerian small businesses as fraudulent during chargeback disputes.

<sup>14</sup> E-Payment Dispute Arbitration Framework (2011), s.3.

<sup>15</sup> Johnstone Oritsejola, 'BD Insider 208: Chargeback Fraud Costs Interswitch N 30 billion in Losses' (Condia, 2023) < <https://thecondia.com/interswitch-chargeback-fraud/> > accessed February 1, 2025.

<sup>16</sup> Kristin Johnson, 'Artificial Intelligence, Machine Learning, and Bias in Finance: Toward Responsible Innovation' 88 Fordham Law Review (2019) < <https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=5629&context=flr> > accessed February 1, 2025.



This perception of bias can stem from various factors, including negative stereotypes, historical instances of fraud associated with certain regions, or systemic issues within the financial industry. AI systems are trained on these factors hence raises concern for bias against Nigerian small businesses.

Arising from the issue of bias is potential lack of accountability when AI systems make erroneous decisions in chargeback disputes.<sup>17</sup> Nigeria's current legal framework does not explicitly address AI-induced liabilities, necessitating the development of clear guidelines to delineate accountability. The government's involvement is needed to set penalties for non-compliance or errors involving the use of AI systems.<sup>18</sup> Due to the reliance on vast amount of data, including sensitive personal and financial information, to process chargeback disputes, there is an increasing risk of privacy breaches. The Nigeria Data Protection Commission continues to ensure compliance with data protection

regulations, often sanctioning defaulting data controllers or processors in this area.

AI systems are also prone to hallucinations, where AI generates information that appears plausible but is incorrect or entirely fabricated. Outcomes of chargeback disputes are reliant on documentary evidence produced by parties. AI systems may produce fictitious data or documents that could be mistakenly used as evidence in chargeback disputes, leading to unjust outcomes. Human oversight is needed to review certain processes to verify AI outcomes, but due to the magnitude of cases, this cannot always be performed. Fraudulent customers could exploit the use of Generative AI to automate the creation of fraudulent evidence, hence initiating fraudulent chargeback claims, which may not be detected using AI systems.

Nigeria's legal framework does not address disputes arising from AI-driven decisions. The use of AI in chargeback disputes impacts dispute resolution mechanisms. Online Dispute Resolution (ODR) methods may be required to be able to deal with AI-driven harms in chargeback disputes where they unjustly favor customers; this also raises the earlier issue of accountability.

<sup>17</sup> Juan D. Ramirez, 'When AI Makes a Mistake, Who's Responsible?' (BuiltIn, 2023) <https://builtin.com/artificial-intelligence/responsibility-for-ai-mistakes> accessed February 1, 2025.

<sup>18</sup> Ibid.



Implementing such mechanisms not only fills a critical policy gap but also raises essential questions about accountability. Determining who is responsible when AI systems cause harm is paramount. Is it the developers, operators, or the AI itself? Addressing these issues is crucial to ensure a balanced and fair dispute resolution system that protects all stakeholders involved.

## **6. Recommendation**

### **6.1 Recommendation to the Government**

The Central Bank of Nigeria (CBN) must take immediate and decisive action to combat chargeback fraud affecting small businesses. The CBN must establish and enforce regulations that mandate financial institutions to implement stringent security measures and compliance protocols for fraud prevention and data protection. This regulation should promote compliance with adequate payment security standards. This regulation should require businesses to comply with the Payment Card Industry Data Security Standard (PCI DSS) to reduce card fraud. There should be collaborative effort with financial institutions and fintech companies to enforce secure processing methods. The CBN should advocate for the use of multi-factor authentication (MFA) and 3D Secure for online

transactions to authenticate transactions (e.g., via OTP, password, face recognition, fingerprint identification) making it harder to complete unauthorized purchases. This process shifts liability from small businesses to the card issuer, hence protecting businesses from financial losses due to chargeback fraud. As the regulatory body tasked with data protection and its enforcement, the Nigeria Data Protection Commission (NDPC) is obligated to implement stringent measures that ensure secure payment processing. The NDPC must ensure businesses handle customer payment data to prevent breaches that could potentially lead to fraud. This ensures chargeback disputes are faced with high skepticism when a customer makes a claim. Given the current financial climate in Nigeria, banks are more inclined to presume fraud in transactions, often siding with customers in disputes without thorough verification.

The CBN and NDPC should be required to work with the Economic and Financial Crimes Commission, and other law enforcement agencies to locate and prosecute persons that initiate a certain number of chargeback frauds. Establishing fraud reporting channels for businesses to report persons engaged in





friendly fraud after a service has been rendered or goods have been purchased. For high-risk transactions, the NDPC can encourage businesses to adopt biometric verification. The Nigeria Data Protection Commission should be tasked with initiatives designed to train small business owners to recognize fraud indicators and follow protocols when suspicious. By leveraging AI-powered tools, businesses can identify suspicious activities in real-time, automate compliance with data protection regulations, and improve overall cybersecurity measures.

### **6.2 Recommendation to Card Issuers and Financial Institution**

Card issuers should implement stricter use of customer verification tools such as Card Verification Value (CVV), Address Verification Service (AVS), and biometric authentication to confirm the customer's identity during transactions. In the past, certain card-issuers have begun implementing certain AI tools to minimize risks in chargeback disputes. In 2023, Mastercard announced its First-Party Trust program, with AI-powered insights, to combat friendly fraud. This program enhanced transaction transparency by allowing merchants to share detailed transaction data

with card issuers, either during the transaction process or afterward during dispute resolution. This data includes information such as cardholder's purchase history, device details, delivery information, identity elements and geographic location. With these insights, card issuers can better distinguish between 'genuine fraud' and legitimate purchases. This program utilizes AI and risk modeling to identify truly fraudulent transactions and establish new rules for compelling evidence, aiming to offer chargeback protection to merchants who comply with the data-sharing requirements.<sup>19</sup> Card Issuers are encouraged to use similar programs by utilizing artificial intelligence and machine learning algorithms to analyze transaction patterns and identify potential friendly fraud attempts. The need to train and provide resources to merchants on how to implement effective fraud prevention measures, such as maintaining detailed transaction records and utilizing fraud monitoring tools. Clear and efficient procedures should be developed for merchants to dispute chargebacks resulting

<sup>19</sup> Mastercard, 'Mastercard Targets 'Friendly' Fraud to Protect Small Businesses and Merchants' (Mastercard Newsroom, 2023) < <https://newsroom.mastercard.com/news/press/2023/october/mastercard-targets-friendly-fraud-to-protect-small-businesses-and-merchants/> > accessed February 1, 2025.



from friendly fraud, ensuring timely communication and resolution. Card issuers should also encourage small businesses to adopt EMV-capable terminals, which are point-of-sale (POS) devices that support EMV (Europay, MasterCard, and Visa) chip card technology. As these cards are more secure because they use encryption and dynamic data for every transaction, which reduces the risk of card data being stolen and used fraudulently. This technology is specifically designed to reduce fraud related to stolen cards.<sup>20</sup>

Card Issuers and Financial Institutions must continue to ensure that AI systems being utilized must be compliance with financial regulations in Nigeria. This includes adherence to guidelines by the CBN, regulations of the NDPC and other relevant financial laws. Regular audits and assessments of AI systems can aid in maintaining compliance and addressing any emerging legal challenges. Financial institutions should also analyze chargeback data to identify and rectify any disproportionate impacts on Nigerian

businesses. Ensuring that data AI systems are being trained on are filtered to check against human biases and implementing training programs for staff to recognize and mitigate unconscious biases to promote fairer decision-making processes when human oversight is required.

### 6.3 Recommendation for Small Businesses

Friendly fraud occurs for various reasons. Customers may not have recollection of some purchases made over time; small business should ensure that billing descriptions on transaction statements are identified clearly. This description should include the business name, the phone number of the business and a short description of the type of business. This helps customers recognize these transactions, reducing confusion and minimizing disputes or chargebacks.

Small businesses using online platforms should provide clear refund and cancellation policies on their websites. Customers should be required to acknowledge the terms and conditions before a purchase be completed. This serves as documentation if the customer, in the future, initiates a chargeback. Many payment processors in Nigeria require businesses to outline these requirements on their websites as it reduces the instance of

<sup>20</sup> Aleksey Nugid, 'The Ultimate Guide to EMV Terminals: Everything You Need to Know' <  
<https://www.nadapayments.com/blog/the-ultimate-guide-to-emv-terminal-s-everything-you-need-to-know> > accessed February 1, 2025.

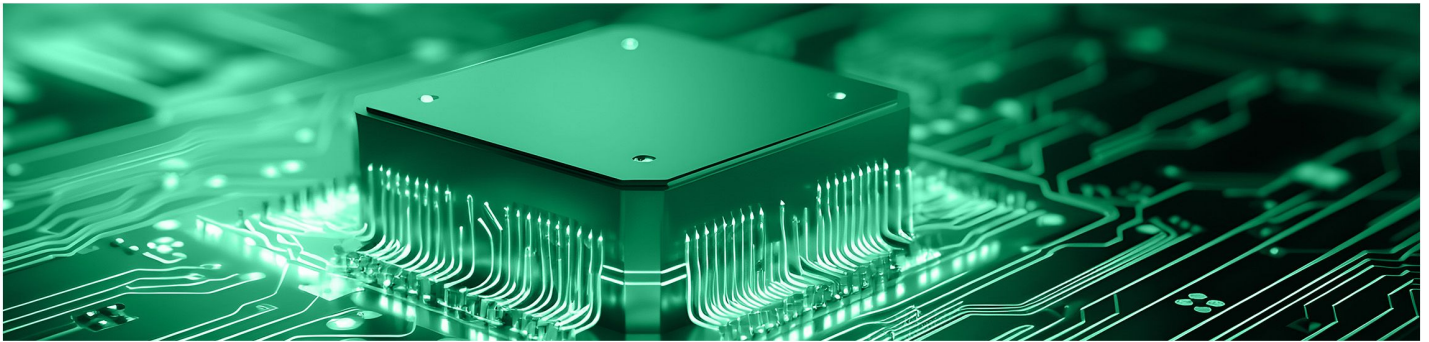


fraud and disputes if it occurs. If customers want a refund for purchases, they are more likely to contact the small business before contacting the card issuer, which reduces the burden on the small business.

Proof of transactions need to be obtained from the customer after the completion of the transaction. If the transaction is performed online, customers should be required to provide contact address such as phone numbers and email addresses. Detailed invoices should be sent to customers to include: the date and time of the transaction, the customer's name and details, the business name and details, detailed description of goods sold, or services rendered. Processing platforms have also begun to incorporate e-signatures, this should be included in the invoices sent. For in-person transactions, customers should be required to provide a government issued identification to ensure the name on the identification, matches the credit or debit card used. Customers should also be required to input their signatures on receipts. These receipts may be required for verification in case of any chargeback disputes or inquiries in the future. Small businesses are encouraged to keep

records of all transactions, using available AI tools, for customer communications, invoices, receipts and so on. These records will be necessary in resolving disputes that may occur from any transaction. Customers are less likely to initiate disputes when small businesses respond quickly to customer inquiries and complaints. Nigerian businesses should provide excellent customer service, offer refunds and replacements when appropriate to avoid disputes.

Small businesses can leverage technology by implementing a security protocol such as fraud detection tools including dispute automation systems that radar detect and block fraud using machine learning. Payment processors (such as PayPal, Mastercard, Stripe, Discover) offer small businesses these fraud prevention tools. Fraud detection software that helps identify suspicious patterns in transactions are also useful to small businesses. Artificial Intelligence can also be used to analyze past chargebacks to identify fraud patterns and adjust security measures.



## 7. Conclusion

As AI continues to shape the landscape of chargeback disputes, small businesses face unique challenges that require a rethinking of existing frameworks. While AI-driven systems offer the potential to streamline dispute resolution and enhance efficiency, they also risk introducing biases that unfairly favor customers, leaving merchants vulnerable to financial losses. Promoting the use of Online Dispute Resolution to resolve issues of chargebacks is necessary to effectively address these disputes. To ensure a fairer ecosystem, card issuers, regulators, and merchants must collaborate in creating robust mechanisms that protect Nigerian small businesses from friendly fraud and promote transparency. The balance between technological advancement and fairness is key, and addressing the gaps in policy, AI regulation, and dispute regulation will be essential in creating a sustainable and equitable environment for all stakeholders involved in these transactions.

