

The Top 10 Most Difficult Countries for Identity Verification

Introduction

Many businesses want to become truly global companies with user bases in as many countries as possible. However, several countries have a complex network of regulations, and verifying identities through government documents can be challenging.

Shufti has taken the lead in solving this dilemma by creating this guide book for merchants to reduce the complexity of identity verification so companies will be well-equipped to build a strong and sustainable user base. We want to make sure there is no uncertainty with doing business globally and that you continue to enjoy the freedom to thrive.

Read on to learn how you can master regulations, understand linguistic diversity, and ensure your business prospers.

If you need assistance from Shufti on clarifying anything you've read here, feel free to [get in touch with us](#).

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The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Brazil's Identity Documents

Effective identity verification in Brazil requires a deep understanding of the distinct features and challenges of Brazilian identity documents. Merchants must navigate different formats, languages, and security features to ensure reliable verification. This guide provides a comprehensive overview of Brazil's identity documents and the best practices for merchants engaging in identity verification.

1 | Linguistic Diversity

Brazilian identity documents, particularly the RG (Registro Geral) and the CPF (Cadastro de Pessoas Físicas), reflect the country's rich linguistic and cultural diversity. While Portuguese is the official language, nuances and regional dialects may affect document interpretation.

- **Portuguese:** Portuguese is the primary language on all Brazilian identity documents. Key information such as the holder's name, RG number, CPF number, date of birth, and issuing authority is presented in Portuguese, facilitating nationwide consistency.
- **Regional Variations:** In some regions, local dialects or terms may be used informally, which can pose challenges during verification. While formal documents remain in Portuguese, understanding regional linguistic contexts can aid in accurate processing.



2 | Multiple Identity Document Formats

Brazil utilizes various identity documents, each with distinct features and formats. For instance, the RG and CPF serve different purposes but must often be used together for comprehensive identity verification.

- **RG (Registro Geral):** The RG is a national identity card that includes personal details, a photograph, and a unique number. It may feature security elements like watermarks and holograms.
- **CPF (Cadastro de Pessoas Físicas):** The CPF is a tax identification number but is also widely used as an identification document. It features the individual's name, CPF number, and other essential information.

These documents may vary slightly in design and layout depending on the issuing authority, requiring adaptable verification systems that can handle these differences.

3 | Size Variations

Different regions in Brazil use ID cards of various sizes, which can interfere with automated scanning and reading technologies. Verification systems often expect standard sizes, leading to difficulties when encountering non-conforming IDs, which can slow down processing and cause discrepancies.

i.e: Driver's License (8.5x12 cm),
ID Cards (6.4x19.3 cm)

4 | Understanding Brazil Naming Structure

The naming structure on Brazilian identity documents, such as the RG and CPF, follows specific conventions that reflect cultural practices.

- **Full Name:** Brazilian names typically include a first name, followed by one or more middle names, and then the last name (family name). This structure may also include maternal and paternal surnames. Example: Maria da Silva Oliveira.
- **Surnames:** In Brazil, it is common to have both maternal and paternal surnames. This can add complexity to verification processes, especially when matching names with different document formats.

A Merchant's Guide to Identity Verification in Brazil

In Brazil, identity verification is regulated by several laws, with the key focus being the Brazilian General Data Protection Law (LGPD). The LGPD establishes strict guidelines on how businesses should handle and process personal data, including for identity verification purposes. Merchants must ensure they are compliant with KYC regulations when verifying customer identities, as this helps prevent money laundering, fraud, and other illicit activities. Non-compliance can result in heavy fines and penalties. Shufti offers two verification modes, on-site verification and off-site verification. These modes allow merchants to choose the best approach based on their specific use cases and requirements.

1 | Verification Modes

- **Onsite Verification**
The Onsite verification process by Shufti offers an intuitive and direct interaction for end users through the sophisticated iFrame/Verify component. This user-centric approach enables individuals to seamlessly submit the required verification proofs, such as ID, Address Documents etc., while receiving real-time guidance to navigate the verification process effortlessly. Upon completion, the verification results are made readily available to clients through the comprehensive Back Office portal or can be conveniently delivered via an API response, providing flexible and efficient access to vital information.
- **Offsite Verification**
The Offsite verification process by Shufti is characterized by its efficient and straightforward approach. Clients are responsible for gathering the necessary verification proofs/data from end users. This process streamlines the collection of essential data, enabling clients to submit it directly to Shufti effortlessly for verification. The verification results are conveniently accessible either via the comprehensive Back Office portal or can be readily retrieved through an API response. This flexibility ensures clients have efficient access to critical information.

2 | Document Types Selection

ID Card: Following documents are accepted under ID Card for Brazil

- **RG (Registro Geral):** The RG is a widely accepted identity card in Brazil. It includes personal details such as the holder's name, date of birth, and a unique RG number. The document features security elements like a barcode and a photograph, though older versions may include handwritten details, complicating automated processing. The RG has been issued since the 1980s.
- **CPF (Cadastro de Pessoas Físicas):** While primarily a tax identification number, the CPF is commonly used as a secondary form of identification. It includes essential information such as the holder's name and CPF number. Although it lacks the advanced security features of the RG, it is crucial for various transactions and services in Brazil.



Driver's License: The CNH is widely utilized for identity verification, particularly in transportation and employment sectors. It contains essential security features such as barcodes and holograms. Also, there are many other types of driver's licenses which are used in Brazil.

- **Traditional Physical Driver's Licenses:** These are the most common and recognizable forms of driver's licenses, usually made of plastic cards containing the holder's photo and personal details.
- **Electronic Driver's Licenses:** Electronic driver's licenses (eDLs) use an embedded NFC chip to securely store personal and biometric data for quick, contactless verification. They enhance security and streamline updates but raise privacy concerns and depend on technology.
- **Digital Driver's Licenses or Mobile Driver's Licenses:** Digital or mobile driver's licenses are secure digital versions stored on smartphones, providing a convenient way to verify identity and driving credentials. They often use encryption and biometric authentication for enhanced security.



Passports: The Brazilian passport is a secure document primarily used for international travel. It incorporates biometric data, digital photographs, and various anti-fraud features, making it ideal for high-security identity verification processes. It is recognized globally and holds significant weight in identification scenarios.

Credit/Debit Card: Credit/debit cards are generally not recommended for identity verification due to their primary function as financial instruments rather than identification documents.

3 | Document Type Preference and Performance:

Different types of Brazil identity documents yield varying success rates in verification:

ID CARD

The robust security features and clear design of the Brazilian Smart ID card enhance Shufti's ability to deliver accurate and reliable verification, outperforming other systems.



Extraction Parameters: Name, date of birth, issue date, document number, expiry date, gender, nationality

DRIVER'S LICENSE

A Brazilian driver's license is well-suited for KYC due to its comprehensive data and security features. Shufti's OCR technology guarantees high accuracy and conversion rates by effectively processing its diverse formats.



Extraction Parameters: Name, date of birth, document number, expiry date, face image, vehicle class.

PASSPORT

Shufti's advanced OCR systems accurately capture and verify details on Brazilian passports, efficiently overcoming challenges from holograms and microtext.



Extraction Parameters: Name, date of birth, issue date, document number

4 | Preferred Document for Identity Verification

At Shufti, we acknowledge the Brazilian smart ID card, passport, and driver's license as the preferred documents for identity verification in Brazil. The smart ID card stands out as the top choice due to its advanced security features and standardized format, while the Passport serves as an excellent alternative for international verification. The driver's license is also a viable option for individuals who do not possess a smart ID card. Our advanced OCR technology is optimized to accommodate the unique characteristics of these documents, ensuring quick and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in Brazil for its higher accuracy and better control over the verification process. This is crucial in a market where document fraud can be a concern. Onsite methods leverage biometric and AI-driven technologies to ensure the authenticity and reliability of the verification process.

2 | Data Extraction

Optical Character Recognition (OCR) is essential in Brazil to accurately extract data from identity documents, especially those issued in multiple languages like English and Portuguese. Advanced OCR systems are required to handle the variations in text, security features, and regional formats. Additionally, OCR must efficiently process both old and new document types, such as smart ID cards and green barcode ID books, ensuring accurate data extraction across all formats.

3 | Identity Document's Backside Proof

In Brazil, while key details on documents like the Smart ID Card and driver's licenses are typically on the frontside, the Smart ID Card's backside includes the issue date, document number, and other data. The driver's license may also have additional information on the backside. Merchants should enable the Backside proof required parameter to ensure all necessary data is captured, maintaining compliance and preventing verification delays.

4 | Real-Time Proof Capture Vs. Proof Upload

Brazil identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- Real-Time Proof Capture:** With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying Physical documents.
- Proof Upload:** Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Burmese Identity Documents

Effective identity verification in Myanmar requires a thorough understanding of the unique characteristics of Burmese identity documents. Shufti's OCR and identity verification systems are designed to address these challenges, ensuring high accuracy and compliance. In this section, we will discuss the various challenges associated with verifying Burmese identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Diverse National Registration Cards (NRC)

Myanmar's National Registration Cards (NRCs) have been issued in various forms over the decades. Older versions are often handwritten or typed, leading to poor document quality that can hinder OCR accuracy. Newer versions, while printed and laminated, still suffer from inconsistent design and font usage. There is no strict national standard for the layout of NRCs and other identification documents in Myanmar, leading to regional variations in font size, placement of key data points (e.g., name, birth date), and use of official stamps or seals.



Furthermore, many citizens, particularly in conflict regions, possess different regional or community IDs, complicating standardized verification. Additionally, local governments may issue documents with unique designs or formats for specific purposes, such as travel or residency permits.



2 | Bilingual and Multilingual Documents

Myanmar's official language is Burmese, but many documents, especially in border regions, are bilingual or even multilingual due to the country's ethnic diversity.

For example:

Shan: Shan State uses a script derived from Burmese with unique tonal markers and vowels. "Water" is written as **ခၢဝ်း** ("khawn").

Karen: Southeastern Myanmar, like Sgaw Karen, use an adapted Burmese script. In Sgaw Karen, "water" is **လီၤ** ("lee"), while in Pwo Karen it's **လၢ**.

Kachin: The Kachin people in northern Myanmar speak several languages, but Jingpho (Jinghpaw) is the most prominent. The Jinghpaw (Kachin) language, spoken by the Kachin people in northern Myanmar, uses the Latin alphabet for writing. Unlike Shan and Karen, it does not use a script derived from Burmese. The word for "water" in Jinghpaw is written as shanglaw.

3 | Language Nuances and Diacritic Challenges

The Burmese script contains several diacritic marks and special characters that modify the meaning of words or change the pronunciation of syllables. These marks are crucial for extracting accurate information, especially for names and addresses.

A a	B b	C c	D d	E e	F f	G g	H h
[a/ɛ-ʌ/ɔ]	[b]	[tɕ/tɕʰ]	[d]	[e-ɛ]	[f]	[g]	[h]
I i	J j	K k	L l	M m	N n	O o	P p
[i/i]	[tɕ]	[k/-kʰ]	[l]	[m]	[n]	[o/ɔ]	[p]
R r	S s	T t	U u	W w	Y y	Z z	?
[ɹ-ɹ-ɹ]	[s-sʰ]	[t]	[u/ú]	[w]	[j]	[z/ʒ]	[ʔ]
aw	ai	br	by	gr	gy	iaw	iu
[au]	[ai]	[bʲ-ɸ]	[bʲ]	[gʲ-ɸ]	[gʲ]	[iau]	[iu]
kh	KHR	khy	kr	ky	k.y	n	ng
[kʰ/x]	[kʰh-kʰʰ]	[kʰ]	[kʰ-kʰʰ]	[kʲ]	[k.j]	[n/ŋ/m]	[ŋ]
n-g	ny	ou	oy	pf	ph	phr	phy
[n.g]	[n]	[ou]	[oi]	[pʰ-ɸ]	[pʰ]	[pʰh-pʰʰ]	[pʰ]
pr	py	p.y	sh	th	ts	ua	uy
[pʰ-pʰ]	[pʲ]	[p.j]	[ɕ]	[tʰ]	[ts-s]	[ua]	[ui]

4 | Burmese Native Calendar

Burmese documents may use varying date formats, including the traditional Burmese calendar in some rural areas, which differs from the Gregorian calendar. The Burmese calendar operates on a lunisolar system, combining both solar years and lunar months.

MONTH	LENGTH IN DAYS	CORRESPONDING GREGORIAN MONTHS	SPECIAL OCCASIONS
Tagu	29	March-April	Thingyan new year
Kason	30	April-May	Vesakha Day (on full moon)
Nayon	29	May-June	
Waso	30	June-July	Vassa period begins; Martyr's day
Wahgaung	29	July-August	
Tawthalin	30	August-September	
Thadingyut	29	September-October	Thadingyut festival; Vassa ends; Kahtein religious period begins
Tazaungmon	30	October-November	Tazaungdaing festival; Kahtein period ends
Natdaw	29	November-December	
Pyathoe	30	December-January	Karen new year
Tabodwe	29	January-February	
Tabaung	30	February-March	Final day of Myanmar calendar (on the full moon)

The Burmese calendar also has a different starting point for its era, known as the Burmese Era (BE), which began in 638 CE, while the Gregorian calendar starts at 1 CE. This means the Burmese calendar is currently approximately 638 years ahead of the Gregorian calendar.

One significant difference is that the Burmese year often starts in April, aligned with the traditional Thingyan (New Year) festival, rather than in January as in the Gregorian system. Additionally, months in the Burmese calendar are based on lunar phases, meaning they don't align precisely with Gregorian months. As a result, date extraction and conversion between the two systems can be challenging, especially in documents that continue to use the Burmese calendar for religious or traditional purposes, such as astrological charts, monastic documents, or traditional property deeds.



5 | Handwritten and Printed Variations

Many older NRCs and other identity documents are partially or fully handwritten, particularly in rural areas. These handwritten elements can include critical information like names, birthdates, and addresses, making automated verification difficult.

6 | Document Aging and Wear

Older Burmese documents are often physically damaged or worn out due to prolonged use and poor storage conditions, especially in rural areas. Many citizens do not regularly update their identification, leading to faded ink, torn edges, or laminate peeling off.



7 | Challenges with Stateless or Refugee Documents

Refugees or stateless individuals within Myanmar often do not possess recognized national documents. Instead, they may have documents from international or humanitarian organizations that are difficult to verify through standard channels.

8 | Outdated National Identity System

Older Myanmar’s National Registration Cards (NRCs) date back to the 1950s, with over 27% of the population, especially in rural areas, remaining unregistered. The slow shift to digital IDs complicates verification.



9 | Outdated National Identity System

Myanmar is home to over 135 ethnic groups, and many, like the Rohingya, face challenges in obtaining formal ID. Shufti’s solutions incorporate alternative verification methods, such as biometric data, to verify these stateless populations. This flexibility allows businesses to onboard users from these communities while maintaining legal compliance.

A Merchant’s Guide to Identity Verification in Myanmar

In Myanmar, merchants face unique challenges when verifying identity documents such as National Registration Cards (NRCs), passports, and various regional identification forms. To facilitate seamless integration and simplify the verification process, Shufti offers two verification modes: Onsite Verification and Offsite Verification. Each of these modes comes with considerations depending on the document type, verification method, and specific challenges encountered in the Burmese market.

1 | Verification Modes

Onsite Verification

Shufti's Onsite Verification Mode offers merchants a user-friendly, real-time solution to identity verification using an iFrame/Verify component. This solution allows end users to submit necessary identity proofs such as NRCs or residence permits. The process is smooth and guided, with real-time feedback for the user to ensure document submission is correct. Once the process is complete, merchants can access verification results directly through the Shufti Back Office or API responses, enabling quick and efficient access to vital information.

Offsite Verification

Offsite Verification involves the client gathering identity documentation from users and submitting it for verification by Shufti. This method is more flexible and allows businesses to collect documents and data at their own pace. After submission, the results are returned either via the Back Office portal or through API responses. This method is particularly useful for merchants with large volumes of documents collected asynchronously or in regions where direct user engagement is challenging.

2 | Document Types Selection

In Myanmar, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here's a brief overview of some of the key identification documents and their features:

- National Registration Card (NRC):** The NRC is the primary ID document for Myanmar citizens, and it is mandatory for individuals above the age of 10. These documents have different formats and design patterns for male and female nationals. It is a laminated paper with personal details (name, birth date, ethnicity, religion) and an NRC number. Older versions may feature English, but most are in Burmese. Ethnic minorities, especially the Rohingya, have historically faced difficulties in obtaining the NRC, limiting access to citizenship and essential services.



- Citizenship Scrutiny Card (CSC):** The CSC helps verify the citizenship status of individuals, making it a crucial document for determining different levels of legal rights. It is used for voting, accessing social services, and legal rights. It has different variants that denote access to legal rights.



Pink Card:
Full citizenship for the Bamar majority and recognized ethnic groups.

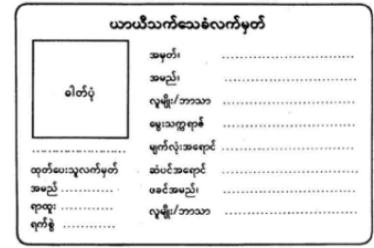


Blue Card:
Associate citizenship for descendants of immigrants after the 1948 Union Citizenship Law.



Green Card:
Naturalized citizenship for long-term residents without full ethnic citizenship (e.g., Indians, Chinese)

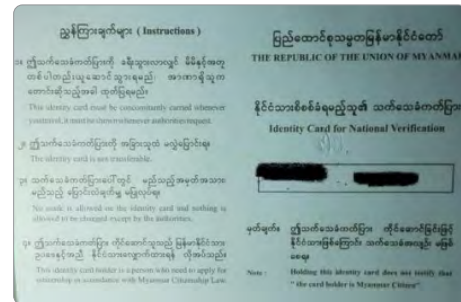
- Temporary Registration Card (TRC):** Often referred to as “white cards,” these were issued to individuals ineligible for full citizenship, such as the Rohingya. They provided limited legal recognition but were not a form of citizenship. These documents were discontinued in 2015, which worsened the statelessness of many Rohingya.
- Household Registration Certificate (HRC):** HRC registers households within a township, listing family members. It’s vital for voting, registering children, and accessing local services. The HRC is often requested for legal matters and serves as a supplementary document in disputes or other ID verifications.



- Passport:** Burmese (Myanmar) Passport contains different variants:

- Ordinary Passport:** For international travel, including personal and issuance details.
- Diplomatic Passport:** For diplomats and government officials.
- Service Passport:** For government workers on official business.

- National Verification Cards (NVC):** Introduced in 2015 for stateless individuals (e.g., the Rohingya) to begin verifying their citizenship status. These cards are turquoise. NVC is often viewed as inadequate and a temporary solution to the ethnic marginalization issues. While not providing full citizenship, NVCs may offer partial verification of status.



3 | Document Type Preference and Performance

Different types of Burmese identity documents yield varying success rates in verification:

CITIZENSHIP SCRUTINY CARD

The Citizenship Scrutiny Card is the primary identification document for citizens of Myanmar, with different versions (pink, blue, and green cards) based on citizenship status. Shufti’s OCR technology is optimized to handle the unique layout and bilingual (Burmese and English) text. Regional variations and specific formatting of these cards are managed effectively by the system.



Format: Laminated

Extraction Parameters: Name, date of birth, issue date, document number

DRIVER'S LICENSE

Burmese driver's licenses have varied designs depending on region and authority. Shufti's OCR technology is optimized to handle these differences and accurately process handwritten or non-standardized data.

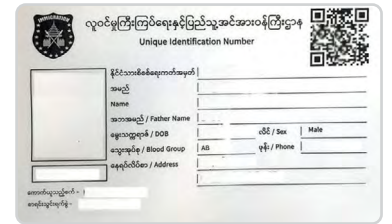


Format: Physical document

Extraction Parameters: Name, date of birth, issue date, document number, expiry date

NATIONAL ID CARD

The new Myanmar National ID Card (Smart Card) is increasingly used for identity verification in administrative and financial tasks. Shufti's systems are tailored to the card's features, offering fast and accurate verification.

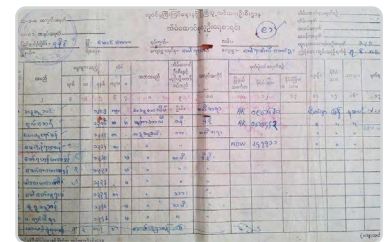


Format: Physical document

Extraction Parameters: Name, date of birth, issue date, document number, expiry date

HOUSEHOLD REGISTRATION CARD

This document is commonly used in Myanmar for non-financial identity verification tasks. Shufti's OCR systems are trained to handle both typed and handwritten elements, capturing data accurately despite regional variations.

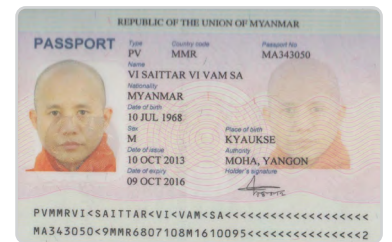


Format: Paper-based document

Extraction Parameters: Name, date of birth, issue date, document number

PASSPORT

Myanmar passport's complex security features pose challenges for OCR technology. Shufti's advanced systems are fine-tuned to capture and verify all key details with accuracy, ensuring smooth and reliable processing.



Format: Physical document

Extraction Parameters: Name, date of birth, issue date, document number, Expiry date

4 | Preferred Document for Identity Verification

The Myanmar Driver's License and Citizenship Scrutiny Card are highly preferred for KYC document verification in Myanmar due to their comprehensive coverage of essential verification parameters. These documents provide all the necessary details required for reliable and efficient identity verification, ensuring thorough compliance with KYC processes.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in Myanmar (Burma) due to its higher accuracy and greater control over the verification process. This is particularly important in a market where document forgery is highly sophisticated. Onsite verification is ideal for sectors such as financial services and insurance that require immediate, high-accuracy results.

2 | Data Extraction

Optical Character Recognition (OCR) is essential in Burma to accurately extract data from identity documents, especially those with complex characters like Shan, Karen, and Kachin. Advanced OCR systems are necessary to handle the nuances of Burmese scripts. Moreover, OCR should be efficient enough to convert Burmese dates to Gregorian calendar dates which are originally in the Burmese native calendar.

3 | Identity Document's Backside Proof

Many Burmese identity documents contain crucial information on both the front and backside. For instance, the backside of the NRC often contains critical data, such as document numbers, addresses, and official seals. It is recommended to submit both sides of the NRC or other identity documents for comprehensive verification. Shufti's system ensures that all relevant data is accurately captured and validated during the verification process.

4 | Real-Time Proof Capture Vs. Proof Upload

Myanmar identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**

With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying Physical documents.

- **Proof Upload:**

Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

5 | Device for Identity Verification

As of 2023, more than 90% of internet users in Myanmar access the web through mobile devices, with Android dominating the market. This trend emphasizes the importance of providing a mobile-optimized verification process. Shufti's identity verification solutions are designed with mobile-responsive user interfaces that cater to the specific needs of smartphone users, ensuring that businesses can reach a wider audience while minimizing friction in the verification journey.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Cambodia's Identity Documents

Effective identity verification in Cambodia requires a comprehensive approach due to the distinct characteristics and complexities of Cambodian identity documents. Shufti's OCR and verification technology is specifically designed to address these challenges and provide accurate, efficient, and reliable identity verification solutions. In this section, we will discuss the various challenges associated with verifying Cambodian identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Khmer Script Complexity

Khmer, the official language of Cambodia, uses a unique writing system that presents several challenges for optical character recognition (OCR) and automated verification. The Khmer script has 74 characters, including 33 consonants, 23 vowels, and 12 independent vowels, along with various diacritics that modify sounds. Khmer script varies in fonts and styles across different documents, especially between older and newer versions of ID cards and passports.



2 | No Spaces Between Words

Unlike many languages, Khmer script does not use spaces between words. Sentences are written in a continuous flow, making it harder for OCR systems to differentiate individual words and phrases. Without spaces between words (**ព្រះរាជាណាចក្រកម្ពុជា**), OCR systems must be context-aware to break down continuous streams of text into understandable words.

ក	ka	គ	ko	ឃ	cha	ដ	da	ឌ	do	ប	pa	ប	po	ស	sa	ស	so
ខ	kha	យ	kho	ត	ta	ទ	to	ផ	pha	ភ	pho	ហ	ha	ហ	ha	ហ	ho
ង	nga	ង	ngo	ថ	tha	ធ	tho	ម	ma	ម	mo	អ	qa	អ	qa	អ	qo
ច	ca	ជ	co	ប	tha	ជ	tho	យ	ya	យ	yo	ហ្វ	ga	ហ្វ	ga	ហ្វ	go
ឆ	cha	ឈ	cho	ណ	na	ន	no	រ	ra	រ	ro	ហ្វ	fa	ហ្វ	fa	ហ្វ	fo
ញ	ña	ញ	ño	ប	ba	ប	bo	ឡ	la	ល	lo	ហ្វ	za	ហ្វ	za	ហ្វ	zo
								វ	wa	វ	wo						

3 | Complex Diacritics Marks

Diacritics (marks placed above or below characters) are common in Khmer script and can change the sound of letters. Properly interpreting these diacritics is essential for accurate text extraction.

4 | Non-Standardized Date Formats

Cambodian documents often feature date formats that differ from international standards, making the conversion and interpretation of dates challenging in identity verification processes. Verification systems must be capable of recognizing and converting these non-standard formats into Gregorian equivalents.

- Date Representation in Documents:** Cambodian identity documents typically list dates in day/month/year format. For instance, "15/07/1985" would represent July 15, 1985, which aligns with the common European format but differs from the U.S. standard



០ ១ ២ ៣ ៤ ៥ ៦ ៧ ៨ ៩
0 1 2 3 4 5 6 7 8 9

- Regional Date Variations:** Some documents might include the traditional Khmer calendar, which follows the Buddhist Era (BE). The Buddhist Era is 543 years ahead of the Gregorian calendar, meaning the year 2024 in the Gregorian calendar would correspond to (2567 BE) in the Buddhist calendar. Some Cambodian documents may also present dates in a mix of Western and Buddhist formats, requiring conversion for global systems that adhere to the Gregorian calendar.
- Unique Calendar System:** The Cambodian zodiac consists of 12 animal signs, each representing a year in a 12-year cycle. The animals are the rat, ox, tiger, rabbit, dragon, snake, horse, goat, monkey, rooster, dog, and pig. They play a significant role in Cambodian culture, particularly in astrology and calendar systems. Each year in the cycle is associated with one of these animals, and individuals born in a specific year are believed to inherit traits associated with their animal sign. For instance, those born in the Year of the Rabbit are considered to be gentle and compassionate, while those born in the Year of the Ox are thought to be strong and determined.

- 1999 – Year of the Rabbit 1st Year (លាមក ឆ្នាំរោង)
- 2000 – Year of the Dragon 2nd Year (រោង ឆ្នាំស្រូវ)
- 2001 – Year of the Snake 3rd Year (ម្សៅ ឆ្នាំកង្កែប)
- 2002 – Year of the Horse 4th Year (មី ឆ្នាំស្រូវ)
- 2003 – Year of the Goat 5th Year (មី ឆ្នាំស្រូវ)
- 2004 – Year of the Monkey 6th Year (វា ឆ្នាំស្រូវ)
- 2005 – Year of the Rooster 7th Year (រោង ឆ្នាំស្រូវ)
- 2006 – Year of the Dog 8th Year (ច ឆ្នាំស្រូវ)
- 2007 – Year of the Pig 9th Year (កុរ ឆ្នាំស្រូវ)
- 2008 – Year of the Rat 10th Year (ថ្មី ឆ្នាំស្រូវ)
- 2009 – Year of the Ox 1st Year (ថ្មី ឆ្នាំស្រូវ)
- 2010 – Year of the Tiger 2nd Year (រោង ឆ្នាំស្រូវ)
- 2011 – Year of the Rabbit 3rd Year (លាមក ឆ្នាំរោង)
- 2012 – Year of the Dragon 4th Year (រោង ឆ្នាំស្រូវ)

A Merchant’s Guide to Identity Verification in Cambodia

In Cambodia, merchants face challenges with verifying ID cards, passports, and driver’s licenses. To simplify this, Shufti offers two verification modes: Onsite Verification Mode and Offsite Verification Mode. Merchants can choose the best mode based on their needs, document type, and specific challenges.

1 | Verification Modes

- Onsite Verification**
 The end-user directly interacts with Shufti’s interface for real-time document verification. The system automatically captures the best frame using advanced algorithms to ensure optimal quality, offering users a seamless experience with clear, step-by-step instructions. Users can switch devices if their camera is not functioning properly, ensuring the process can continue without interruption. The platform also provides options to edit OCR-extracted data, which is then cross-validated against the original documents, further ensuring accuracy. Real-time guidance, retries, and cross-device validation help reduce errors and fraudulent submissions, leading to higher conversion rates.
- Offsite Verification**
 The merchant is responsible for collecting and submitting the end-user’s documents to Shufti for verification. This approach leverages pre-taken documents such as screenshots, scans, or color copies, which can be uploaded in various formats like PNG, PDF, JPEG, or MP4, with file sizes up to 20MB. Shufti’s pre-trained machine learning models examine these submissions for authenticity by analyzing features like holograms, watermarks, and tampering. Offsite Mode is particularly useful in regions with poor internet connectivity, as it allows users to bypass the need for live interaction and real-time verification, ensuring the process can still be completed successfully without the risk of interruptions.

2 | Document Types Selection

In Cambodia, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here's a brief overview of some of the key identification documents and their features:

- **ID card:** In Cambodia, National Identity Card is the primary identification document used for identity verification. It contains essential information like name, photo, and date of birth, and is widely accepted for identity verification.
- **Driver's License:** Driver's Licenses are frequently used in Cambodia for identity verification, especially in sectors like transportation and employment. These licenses contain basic security features, making them reliable for verification purposes.
- **Passport:** Passports are a highly secure form of identification in Cambodia, commonly used for international travel and high-security verifications. They include features like biometric data, making them ideal for precise verification processes.
- **Credit/Debit card:** Credit and debit cards are generally not recommended for identity verification in Cambodia, as they are primarily used for financial transactions rather than personal identification.

3 | Document Type Preference and Performance

Different types of Cambodian identity documents yield varying success rates in verification:

NATIONAL IDENTITY CARD

The clear layout of the Cambodian National ID Card boosts OCR accuracy, allowing Shufti to provide better data extraction and verification.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address



PASSPORT

The detailed and secure design of the Cambodian Passport enhances OCR accuracy, enabling Shufti to extract data more precisely and perform reliable verification.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality, gender



DRIVER'S LICENSE

The Cambodian Driver's License features clear personal details and security elements like holograms. It is preferred for verification due to its widespread use and reliable security features.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address



4 | Preferred Document for Identity Verification

As Shufti, we recognize National Identity Cards as preferred documents for identity verification in Cambodia, because of their widespread use and clear layout. The National Identity Card, with its data and widespread use across sectors, is the leading choice. Our advanced OCR technology is optimized to handle the unique features of both documents, ensuring quick and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in Cambodia for its higher accuracy and better control over the verification process. This is crucial in a market where document fraud can be a concern. Onsite methods leverage biometric and AI-driven technologies to ensure the authenticity and reliability of the verification process.

2 | Data Extraction

Optical Character Recognition (OCR) is crucial in Cambodia for accurately extracting data from identity documents, which often include Khmer script and various local languages. Advanced OCR systems are needed to handle the intricacies of Khmer characters and ensure accurate data extraction. Shufti recommends using the OCR mode of verification due to our trained OCR models, which offer high accuracy. This ensures that the exact data is extracted, translated, and provided in the response, improving the reliability and efficiency of the verification process.

3 | Identity Document's Backside Proof

Cambodian documents, such as ID cards and Driver's Licenses, usually have all required information on the front. For a quicker verification process, merchants can choose to provide only the front side of the document by setting Backside Proof Required to 'No' provided if it meets compliance regulations. This approach simplifies and speeds up the verification process, reducing the need for additional document uploads and minimizing delays.

4 | Real-Time Proof Capture Vs. Proof Upload

Cambodia identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- Real-Time Proof Capture:** With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying Physical documents.
- Proof Upload:** Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (Real-time proof capture) and **Allow Offline** (Proof upload) options available in the Verification Setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Ethiopian Identity Documents

Effective identity verification in Ethiopia requires a comprehensive approach due to the distinct characteristics and complexities of Ethiopian identity documents. Shufti’s OCR and verification technology is specifically designed to address these challenges and provide accurate, efficient, and reliable identity verification solutions. In this section, we will discuss the various challenges associated with verifying Ethiopian identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Multilingual Documents

Ethiopia is a linguistically diverse nation, which adds complexity to identity verification. While Amharic is the official language, many Ethiopians speak languages such as Oromo, Tigrinya, and Somali, each with unique linguistic features. Ethiopia’s languages use different scripts, primarily the Ge’ez script for Amharic and Tigrinya, and the Latin script for Oromo and Somali. For Example, An Amharic national ID might use the Ge’ez script (e.g., U for “ha”), while an Oromo document could be in Latin (e.g., “Haile” in Oromo instead of ሀሌ in Amharic).

U hä ስ lä ሐ hä መ mā ሆ ስä ረ rä ሰ sä ሸ ስä ቀ qä ቈ qua
ሁ hu ሱ lu ሑ lu መ mu ሆ ስu ሩ ru ሱ su ሸ ስu ቁ qu
ሂ hi ሲ li ሒ li መ mi ሆ ስi ረ ri ሰ si ሸ ስi ቁ qi ቁ qui
ሃ ha ሳ la ሐ ha መ ma ሆ ስa ረ ra ሳ sa ሸ ስa ቃ qa ቃ qua
ሄ he ሴ le ሑ he መ me ሆ ስe ረ re ሰ se ሸ ስe ቄ qe ቄ que
ሀ ha/ላ la/ላ ሐ ha/ላ ም ma/ላ ሆ ስa/ላ ረ ra/ላ ሰ sa/ላ ሸ ስa/ላ ቅ qa/ላ ቁ qua
ሁ ho ስ lo ሐ ho ሞ mo ሆ ስo ሮ ro ሰ so ሸ ስo ቆ qo
bet tāwe ċ ḥārm nāhas ṛ ḥāf kaf
በ bá ተ tā ቸ čā ኅ ḥā ኅ ḥuā ኅ nā ኘ ḥā ሐ 'a ከ kā ከ kuā
ቡ bu ቱ tu ቸ ču ኅ ḥu ኅ nu ኘ ḥu ሐ 'u ከ ku
ቢ bi ቲ ti ቸ čī ኅ ḥi ኅ ḥui ኅ ni ኘ ḥi ሐ 'i ከ ki ከ ku
ባ ba ታ ta ቸ ča ኅ ḥa ኅ ḥua ኘ na ኘ ḥa ሐ 'a ከ ka ከ kua
ቤ be ቱ te ቸ čē ኅ ḥe ኅ ḥue ኘ ne ኘ ḥe ሐ 'e ከ ke ከ kue
ብ ba/ላ ት ta/ላ ቸ čā/ላ ኅ ḥa/ላ ኅ ḥua ኘ na/ላ ኘ ḥa/ላ ሐ 'a/ላ ከ ka/ላ ከ kua
ቦ bo ቶ to ቸ čō ኅ ḥo ኘ no ኘ ḥo ሐ 'o ከ ko



Ethiopian documents, such as passports, include both Amharic (Ge’ez script) and English (Latin script). This format is challenging for OCR systems that need to switch between different scripts while ensuring accurate data extraction.

2 | Complex Script with Vowel Modifications

The Ge’ez script, used for Amharic, features a syllabic writing system where each base consonant is combined with one of seven vowels. This means a single character can appear in multiple forms, depending on the vowel that follows. For example, a consonant like U (ha) changes its form based on the vowel.

- U = ha
- ሁ = hu
- ሂ = hi
- ሃ = ha
- ሄ = he

Example: The name “Hana” could appear as ሃኖ in one document, while a slight spelling variation like “Hanna” might appear as ሀኖ. OCR systems need to accurately recognize these subtle differences to prevent misinterpretation.

U hä ስ lä ሐ hä መ mā ሆ ስä ረ rä ሰ sä ሸ ስä ቀ qä ቈ qua
ሁ hu ሱ lu ሑ lu መ mu ሆ ስu ሩ ru ሱ su ሸ ስu ቁ qu
ሂ hi ሲ li ሒ li መ mi ሆ ስi ረ ri ሰ si ሸ ስi ቁ qi ቁ qui
ሃ ha ሳ la ሐ ha መ ma ሆ ስa ረ ra ሳ sa ሸ ስa ቃ qa ቃ qua
ሄ he ሴ le ሑ he መ me ሆ ስe ረ re ሰ se ሸ ስe ቄ qe ቄ que
ሀ ha/ላ la/ላ ሐ ha/ላ ም ma/ላ ሆ ስa/ላ ረ ra/ላ ሰ sa/ላ ሸ ስa/ላ ቅ qa/ላ ቁ qua
ሁ ho ስ lo ሐ ho ሞ mo ሆ ስo ሮ ro ሰ so ሸ ስo ቆ qo
bet tāwe ċ ḥārm nāhas ṛ ḥāf kaf
በ bá ተ tā ቸ čā ኅ ḥā ኅ ḥuā ኅ nā ኘ ḥā ሐ 'a ከ kā ከ kuā
ቡ bu ቱ tu ቸ ču ኅ ḥu ኅ nu ኘ ḥu ሐ 'u ከ ku
ቢ bi ቲ ti ቸ čī ኅ ḥi ኅ ḥui ኅ ni ኘ ḥi ሐ 'i ከ ki ከ ku
ባ ba ታ ta ቸ ča ኅ ḥa ኅ ḥua ኘ na ኘ ḥa ሐ 'a ከ ka ከ kua
ቤ be ቱ te ቸ čē ኅ ḥe ኅ ḥue ኘ ne ኘ ḥe ሐ 'e ከ ke ከ kue
ብ ba/ላ ት ta/ላ ቸ čā/ላ ኅ ḥa/ላ ኅ ḥua ኘ na/ላ ኘ ḥa/ላ ሐ 'a/ላ ከ ka/ላ ከ kua
ቦ bo ቶ to ቸ čō ኅ ḥo ኘ no ኘ ḥo ሐ 'o ከ ko

3 | Variation in Document Formats

Ethiopian identity documents are not always standardized across regions. Some older documents, especially those issued in rural areas, might have regional variations in design, format, or security features, adding another layer of complexity for OCR systems.



Example: A driver's license from Bahir Dar might look different in layout and font as compared to the one issued in Addis Ababa, even though both serve the same purpose.



4 | Dual Date of Birth Systems - Calendar Differences

Ethiopia follows its own unique calendar system, known as the Ethiopian calendar, which is approximately 7 to 8 years behind the Gregorian calendar used internationally. This discrepancy often results in Ethiopian identity documents displaying two different dates for the date of birth (DOB).

Example: If a person is born on Tahsas 25, 1986 in the Ethiopian calendar, it corresponds to January 3, 1994 in the Gregorian calendar. If the verification system fails to account for the calendar difference, it could lead to discrepancies or inaccuracies in the Date of birth field.

5 | Document Wear and Tear

Wear and tear is a significant challenge in the verification of identity documents in Ethiopia, particularly for older or frequently used cards. This issue can affect the legibility and integrity of essential identification documents. Ethiopian driver's licenses and the Addis Ababa city resident card, especially older versions, often show signs of wear due to regular use. Handwritten details and security features can become illegible, complicating the verification process. Signs of wear, such as fading text or scratches, can hinder the ability of verification systems to accurately read and interpret information.



4 | Handwritten Documents

The verification of handwritten documents poses unique challenges in Ethiopia, particularly for identity verification processes. Many official documents, such as older national ID cards, driver's licenses, and local residency cards, may contain handwritten information, which can complicate data extraction and accuracy.

- **Variability in handwriting:** Handwriting styles can vary significantly among individuals, leading to inconsistencies that traditional OCR systems may struggle to interpret. This variability can result in errors in name recognition, date of birth, and other critical details.
- **Older documents:** Many older identity documents feature handwritten elements, which may be less legible due to wear and tear over time. This further complicates the verification process, as degraded handwriting can hinder accurate data capture.
- **Cultural naming conventions:** In Ethiopia, names may include complex structures and variations that can be handwritten differently. This complexity can make it challenging for OCR systems to accurately verify names.

A Merchant's Guide to Identity Verification in Ethiopia

In Ethiopia, merchants face challenges when verifying identity documents such as ID cards, passports, and driver's licenses. To streamline the verification process and assist merchants during integration, Shufti offers two Verification Modes: Onsite Verification Mode and Offsite Verification Mode — these modes allow merchants to choose the most appropriate approach based on their specific use cases and requirements. Each mode comes with its own considerations, including the type of document being verified, the verification method, and the unique challenges merchants may encounter.

1 | Verification Modes

- **Onsite Verification**

The onsite verification process by Shufti provides an intuitive and direct interaction for end users through an advanced iFrame/Verify component. This user-centric approach enables individuals to submit required verification proofs, such as ID and address documents, while receiving real-time guidance throughout the verification process. Upon completion, the verification results are accessible to clients via the comprehensive Back Office portal or can be delivered through an API response, ensuring efficient access to vital information.

- **Offsite Verification**

The offsite verification process by Shufti is designed for efficiency and simplicity. In this mode, clients gather the necessary verification data from end users and submit it directly to Shufti for verification. The results are accessible through the Back Office portal or an API response, allowing for streamlined access to critical information.

2 | Document Types Selection

In Ethiopia, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here's a brief overview of some of the key identification documents and their features:

ID CARD:

- **National ID Card:** The Ethiopian National ID card is a primary identification document for citizens, essential for accessing various services and participating in official processes. Handwritten information on older versions can complicate verification processes, requiring advanced OCR technology.
- **Addis Ababa City Resident Card:** Specifically issued to residents of Addis Ababa, this card serves as proof of residence and identity. The card may have varying security features and older versions could include handwritten details, complicating automated verification.

DRIVER'S LICENSE: Ethiopian driver's licenses are widely recognized and serve as valid identification in various contexts.

- **Hayyama Driver's License:** Issued in regional areas, may vary in design and security features, often containing handwritten details that complicate verification.
- **Addis Ababa Driver's License:** Specifically for residents of Addis Ababa, typically adheres to more standardized security features. However, older versions may still include handwritten elements.

PASSPORT: Ethiopian passports are vital for international travel and contain biometric data. Secure document featuring personal and issuance details, with both Amharic and English text. Widely accepted for KYC processes, providing high-level verification due to international standards.

3 | Document Type Preference and Performance

Different types of Ethiopian identity documents yield varying success rates in verification.

ID CARD

ID Card's clear, bilingual layout enhances OCR processing, allowing Shufti's advanced features to provide superior reading and verification compared to competitors.

Format: E-Document, physical document, handwritten (older versions)

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality



DRIVER'S LICENSE

Ethiopian driver's licenses are widely recognized and serve as valid identification in various contexts.

Format: Physical document, handwritten (older versions)

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality



PASSPORT

Ethiopian Passport's complex security features, such as holograms and microtext, challenge OCR technology. Shufti's advanced OCR systems are fine-tuned to accurately capture and verify all key details, ensuring fast and reliable processing.

Format: Physical document

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality



4 | Preferred Document for Identity Verification

At Shufti, we recognize the Ethiopian national ID card as preferred documents for identity verification in Ethiopia. The national ID card, with its essential role across sectors, is the leading choice, while the passport is ideal for high-security verifications. Our advanced OCR technology is optimized to handle the unique features of these documents, ensuring quick and accurate data extraction.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is recommended in Ethiopia due to its higher accuracy and greater control over the verification process. This is especially important in a market where identity fraud can be a concern. Onsite methods can leverage biometric and AI-driven technologies to ensure authenticity and reliability.

2 | Data Extraction

Optical Character Recognition (OCR) technology is crucial in Ethiopia to accurately extract data from identity documents, especially those containing complex scripts and handwritten information. Advanced OCR systems must handle the unique characteristics of Ethiopian scripts and be capable of recognizing both Gregorian and Ethiopian calendar dates.

3 | Identity Document's Backside Proof

Ethiopian identity documents often contain critical information on both the front and back. It is recommended that users submit both sides of the document to ensure comprehensive verification. The backside may include vital details such as addresses, expiry dates, and additional identifiers.

4 | Allowed E-Documents

With the introduction of electronic identification cards (E-ID) in Ethiopia, merchants can enhance their verification processes by allowing the submission of electronic documents. This feature facilitates a more efficient and secure identity verification experience. Merchants can allow e-documents, allowing users to provide their electronic identification documents directly for verification. By incorporating e-documents into the verification settings, merchants can streamline their operations while improving the accuracy and security of identity verifications in Ethiopia.

5 | Real-Time Proof Capture Vs. Proof Upload

Ethiopian identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- Real-Time Proof Capture:** With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying Physical documents.
- Proof Upload:** Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Indian Identity Documents

Effective identity verification in India requires a comprehensive approach due to the distinct characteristics and complexities of Indian identity documents. Shufti's OCR and verification technology is specifically designed to address these challenges and provide accurate, efficient, and reliable identity verification solutions. In this section, we will discuss the various challenges associated with verifying Indian identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Linguistic Diversity

Indian identity documents incorporate a variety of writing systems, including Devanagari, Sanskrit, Tamil, Gujarati, Bengali, Telugu script, and many others. India's linguistic diversity presents a challenge, as documents may contain text in multiple languages like Hindi, English, and regional languages such as Bengali, Tamil, and Telugu. Shufti's OCR is extensively trained on these scripts, ensuring precise extraction from documents like Aadhaar card, voter ID card, and driver's license.



2 | Complex Script with Vowel Modifications

Indian scripts, especially those like Devanagari (नमस्ते), Tamil (நமஸ்தே), and Malayalam (നമസ്തേ), use intricate diacritic marks and compound characters. These elements can be misread by standard OCR systems as separate symbols or letters. Shufti's AI-driven OCR is equipped to detect and interpret these complexities, improving accuracy for document verification in languages with rich script variations.

3 | No Spaces Between Words in Certain Scripts

Some Indian languages, such as Tamil and Telugu, do not traditionally include spaces between words, making it challenging for OCR to distinguish between names, addresses, or other key details. Shufti's context-aware OCR can efficiently manage these texts, extracting information correctly despite the absence of spaces.

Bangla	অনেকগুলি প্রবন্ধের মধ্যে পশ্চিমী মানসিকতার গতিপ্রবাহ
Devanagari	दोपहर का समय था। मि० काबर्ड नाशता करके सिंगार
Gurmukhi	ਤਰ੍ਹਾਂ ਬੁੱਟਿਆ ਜਾਂਦਾ ਜਿਸ ਨਾਲ ਰੋਜ਼ੇ ਵੱਖ ਵੱਖ ਹੋ ਜਾਂਦੇ
Oriya	ଚଳେ ଗଢ଼ିତା ବାଗ । ହନୁହାଡ଼ ଦୁଇଟା ଖତେଲ ହେଲାପରି
Gujarati	રહે છે, તેની સ્વપ્ના આદર્શ. પછી સમય એવો આવ્યો
Tamil	தொடு இரண்டறக் கலந்து விடவேண்டும்.
Malayalam	കൂട്ടമേ, നീങ്ങളൊരൊക്കിലും ഒരു വിവരമറിഞ്ഞുവോ?
Telugu	సిగ్గుతో నిలబడిపోయారు. పదండ్రి! అందరం బైరాగిని చూసి
Kannada	ಕೊರಗಿಸದೆ, ಸಲಹೆದ ಕಾಲುಮೆಯಿದು ಎಂದು ಪ್ರೇಮದಿಂದ ಆದರ.
Urdu	حضرت امیر المؤمنین علیہ السلام کے وہ خطبات ارشادات اور کلمات قصار
English	For more than 30 years, scientists have been

4 | Cultural and Regional Variability

Due to India's vast diversity, identity documents can vary significantly across regions and languages. For example, voter ID cards often have different formats depending on the issuing state. Shufti's continuously updated OCR system is tailored to recognize and adapt to these regional variations, ensuring that all documents are processed with precision.



5 | Driver's License Variations

Indian driver's licenses differ across states, with variations in design, language, and layout. These licenses often include bilingual or trilingual text, typically in English, Hindi, and the state's official language. Shufti's OCR system is continuously updated to handle these differences, ensuring the accurate extraction of names, addresses, and other essential information.



6 | Poor Document Quality

Documents submitted for verification, particularly from rural areas, are often low-quality, photocopies, or poorly scanned. These issues lead to difficulties in text extraction. Shufti's AI models are trained to handle low-resolution images for improved accuracy.

A Merchant's Guide to Identity Verification in India

In India, merchants face several challenges when verifying identity documents such as Aadhaar Card, PAN Card, Passport, and Driver's License. To simplify the process and support merchants during integration, Shufti offers two Verification Modes: Onsite Verification Mode and Offsite Verification Mode. These modes allow merchants to choose the best approach based on their specific use cases and requirements. Each category comes with its own set of considerations, including the type of document being verified, the verification method, and the unique obstacles merchants might face along the way.

1 | Verification Modes

• Onsite Verification

The onsite verification process by Shufti offers an intuitive and direct interaction for end users through the sophisticated iFrame/Verify component. This user-centric approach enables individuals to seamlessly submit the required verification proofs, such as ID, address documents etc., while receiving real-time guidance to navigate the verification process effortlessly. Upon completion, the verification results are made readily available to clients through the comprehensive Back Office portal or can be conveniently delivered via an API response.

• Offsite Verification

The offsite verification process by Shufti is characterized by its efficient and straightforward approach. In this, clients are responsible for gathering the necessary verification proofs/data from end users. This process streamlines the collection of essential data, enabling clients to submit it directly to Shufti effortlessly for verification. The verification results are conveniently accessible either via the comprehensive Back Office portal or can be readily retrieved through an API response.

2 | Document Types Selection

In India, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here's a brief overview of some of the key identification documents and their features:

ID CARD: Indian documents that usually fall under the category of ID Cards include:

- **Aadhaar Card:** The Aadhaar card is the most widely used form of identification in India. It contains an individual's unique 12-digit identification number along with biometric data, making it highly secure for verification.
- **PAN Card:** The PAN card is used primarily for tax-related identification but also serves as a general identity proof in many scenarios. It features a 10-character alphanumeric code and a photograph, providing a reliable means of verification, especially in financial services.
- **Voter ID Card:** The voter ID card, issued by the Election Commission of India, is another widely used identification document. It includes a photograph and an alphanumeric code, making it suitable for verification purposes. However, it lacks advanced security features like biometric data.
- **Ration Card:** Ration cards are issued to households in India for subsidized food and essential supplies, they also serve as a proof of identity. But, they lack the modern security features found in documents like the Aadhaar card.

PASSPORT: Indian passports are highly secure, containing multiple layers of verification, including biometric data, MRZ (Machine Readable Zone), and a photo. Passports are ideal for high-security verifications and are widely used in both national and international contexts.

DRIVER'S LICENSE: Driver's licenses in India vary across states but include important features such as barcodes and QR codes for secure verification.

CREDIT/DEBIT CARD: Credit or debit cards are not recommended for identity verification, as their primary function is financial transactions rather than proof of identity.

3 | Document Type Selection and Extraction Parameters

Different types of Indian identity documents yield varying success rates in verification:

AADHAAR CARD

Aadhaar card's clear, multilingual layout enhances OCR processing, enabling Shufti's advanced features to deliver superior data extraction and verification, outperforming competitors.

Format: Paper-based, e-document

Extraction Parameters: Name, date of birth, document number, address, gender, issue date



DRIVER'S LICENSE

Indian driver's licenses are complex, with diverse formats and regional variations. Shufti's OCR technology is specifically optimized to handle these challenges.

Format: Physical card, e-document

Extraction Parameters: Name, date of birth, issue date, expiry date, address



Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Shufti offers seamless integration for onsite verification through its advanced identity verification services. This system enables real-time user verification using APIs that connect to Shufti's comprehensive verification database, allowing merchants to confirm customer identities with their consent. For industries where real-time verification is not required, Shufti's offsite verification system provides flexibility by allowing businesses to collect and verify documents such as PAN cards, voter IDs, or driver's licenses at a later time. This is especially useful for sectors like telecom, e-commerce, and micro-finance, where documents can be verified in batches, reducing operational burdens while ensuring compliance with KYC norms.

In India, onsite verification is pivotal for high-risk industries and compliance scenarios that require meticulous and direct scrutiny. While offsite verification is prevalent due to the extensive use of mobile devices, onsite methods offer enhanced security and thoroughness. Shufti's AI-powered biometric solutions elevate onsite verification by providing advanced, real-time assessments and ensuring adherence to rigorous regulatory standards.

2 | Data Extraction

Accurate Optical Character Recognition (OCR) is crucial for extracting data from Indian identity documents, especially those written in complex scripts like Devanagari, Tamil, and Bengali. Given India's linguistic diversity, Shufti's OCR technology is employed to maintain high accuracy across multiple languages and document formats.

3 | Identity Document's Backside Proof

Indian identity documents often include essential information on both the front and back sides. Users are required to submit the backside proof of the document to ensure a thorough verification process. The backside of Indian documents, such as Aadhaar cards, Driver's Licenses, and voter ID cards, may contain important details like the document number, address, and sometimes barcodes or QR codes. Providing the backside of these documents during verification is recommended to ensure complete and accurate data extraction.

4 | Document Verification Settings

Indian identity documents, such as ID cards, particularly the Indian Aadhaar card, present unique verification challenges due to their format and issuance. The Aadhaar card is typically available in two formats: a physical paper-based version and an electronic (e-Aadhaar) document. Both formats require distinct verification approaches to ensure accuracy. The electronic version of the Aadhaar card is typically available as a PDF. The Physical paper based version of the Aadhaar card is typically laminated to protect it and ensure its durability for long-term use.

5 | Real-time Proof Capture Vs. Proof Upload

Indian identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**

With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying physical documents such as the paper-based Aadhaar card or voter ID.

- **Proof Upload:**

Users also have the option to upload electronic versions (e-documents) of their identity proofs, such as an e-Aadhaar or a digital PAN card. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have access to digital copies of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Japanese Identity Documents

Effective identity verification in Japan requires a comprehensive approach due to the distinct characteristics and complexities of Japanese identity documents. Shufti's OCR and verification technology is specifically designed to address these challenges and provide accurate, efficient, and reliable identity verification solutions. In this section, we will discuss the various challenges associated with verifying Japanese identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Linguistic Diversity

Japanese writing comprises three scripts: hiragana, katakana, and kanji. Here's a detailed overview of each:

Hiragana (ひらがな): This syllabic script consists of 46 basic characters and is used primarily for native Japanese words and grammatical functions. Hiragana is often the first script taught to learners of Japanese and serves as the foundation for learning other scripts.

Katakana (カタカナ): Like hiragana, katakana is a syllabic script with the same set of sounds but is used for foreign words, technical and scientific terms, as well as for emphasis, similar to italics in English. It is more angular in appearance compared to the cursive style of hiragana.

Kanji (漢字): These are logographic characters that originated from Chinese. Kanji represents words or ideas, and there are thousands of them in use, though about 2,000 are considered essential for daily reading and writing in Japanese (known as Jōyō Kanji). Kanji characters can have multiple readings depending on their use in context.



Documents such as Japanese national IDs, passports, and driver's licenses incorporate all three scripts, making OCR processing particularly challenging. Advanced OCR systems must recognize complex kanji characters and accurately process mixed-script documents.

2 | Complex Diacritic Symbols

Hiragana and katakana may include diacritic marks — dakuten and handakuten — that modify syllables. A common challenge is distinguishing between similar-looking kanji characters that have vastly different meanings. For instance, the kanji for "tree" (木) and "book" (本) are visually similar, but their context within a name or address can change the interpretation entirely.

3 | No Spaces Between Words

Japanese texts typically do not have spaces between words, which can complicate data extraction. Names on documents are often compact and may not include spaces, requiring context-aware OCR technology to distinguish between given names and surnames. Moreover, some documents include both Japanese and Romanized (Latin alphabet) versions of names, which becomes challenging for OCR systems.

4 | Japanese Era Calendar

Japan uses the Japanese era calendar for everyday dates, which begins with the reign of the current Emperor. Documents are categorized by the Imperial eras:

Showa (1926 – 1989)

Heisei (1989 – 2019)

Reiwa (2019 – current) (Reiwa)

Dates are often written in kanji, such as 平成3 for Heisei 3, with occasional Latin abbreviations like H3. The era calendar's structure means that certain years will not appear in documents (e.g., Showa 65 or Heisei 32), and understanding this system is crucial for accurate date verification.

Typically, Japanese dates are written in the following format: **Era Name - Year - Month - Day**

For example:

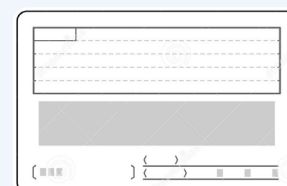
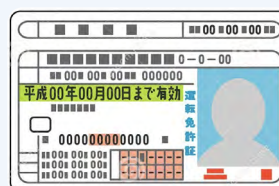
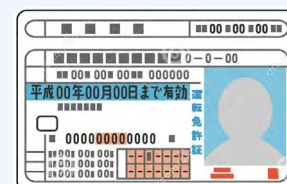
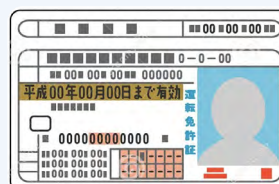
平成 25 年 12 月 25 日 (Heisei 25-nen 12-gatsu 25-nichi) = December 25, 2013

2020 → 令和^{REIWA} 2年
 2018 → 平成^{HEISEI} 30年
 1945 → 昭和^{SHOWA} 20年
 1915 → 大正^{TAISHO} 4年
 1868 → 明治^{MEIJI} 元年

5 | Driver's License Variations

In Japan, different cities and regions may issue variations of driver's licenses. Japanese driver's licenses come in three types, each with distinct background colors representing the driver's record:

- **Green Stripe:** Issued to new drivers.
- **Blue Background:** For regular drivers.
- **Gold Stripe:** Awarded to drivers with a clean record over the past five years.



6 | Complex Naming Structure

In Japan, the traditional naming structure is notably different from Western conventions, presenting unique challenges for identity verification systems. Japanese names typically include this format:

- Surname (Last Name):**
 Position: The surname comes first in Japanese names and is considered the most important part of the name.
 Examples: "Yamada," "Tanaka."
- Given Name (First Name):**
 Position: The given name follows the surname and is used in more personal contexts. Examples: "Taro," "Yuki."
- Middle Name:**
 Convention: Traditionally, Japanese names do not include a middle name. It is typically considered part of the given name when it is present.



A Merchant's Guide to Identity Verification in Japan

In Japan, merchants need help with verifying identity documents such as ID cards, passports, and driver's licenses. To simplify the process and support merchants during integration, Shufti offers two Verification Modes: Onsite Verification Mode and Offsite Verification Mode. These modes allow merchants to choose the best approach based on their specific use cases and requirements. Each category comes with its own set of considerations, including the type of document being verified, the verification method, and the unique obstacles merchants might face along the way.

1 | Verification Modes

- Onsite Verification**
 The Onsite verification process by Shufti offers an intuitive and direct interaction for end users through the sophisticated iFrame/Verify component. This user-centric approach enables individuals to seamlessly submit the required verification proofs, such as ID and address documents, etc while receiving real-time guidance to navigate the verification process effortlessly. Upon completion, the verification results are made readily available to clients through the comprehensive Back Office portal or can be conveniently delivered via an API response, providing flexible and efficient access to vital information.
- Offsite Verification**
 The Offsite verification process by Shufti is characterized by its efficient and straightforward approach. In this, clients are responsible for gathering the necessary verification proofs/data from end users. This process streamlines the collection of essential data, enabling clients to submit it directly to Shufti effortlessly for verification. The verification results are conveniently accessible either via the comprehensive Back Office portal or can be readily retrieved through an API response. This flexibility ensures clients have efficient access to critical information.

2 | Document Types Selection

In Japan, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here’s a brief overview of some of the key identification documents and their features:

ID CARD: Japanese documents that usually fall under the category of ID cards include:

- **My Number Card:** These are widely used in Japan and are the most common form of identification. They are equipped with features like MRZ and sometimes RFID, making them reliable for verification.
- **Residence Card:** This is an important document for foreign residents in Japan. The residence card contains an IC chip for secure data storage, allowing for reliable verification. The inclusion of advanced security features like holograms and microprinting helps ensure authenticity and reduce the risk of forgery.

Health Insurance Card: It is a common form of identification in Japan, used primarily in the healthcare system. While it lacks the advanced security features found in cards like the My Number Card, it still plays a key role in identity verification for medical services.

DRIVER’S LICENSE: Driver’s licenses are also commonly used and are often preferred for their extensive use in various sectors. They include necessary security features that align with Japan’s regulatory standards.

PASSPORTS: Passports are highly secure and contain multiple layers of verification, including biometric data, making them ideal for high-security verifications.

CREDIT/DEBIT CARD: Credit/debit cards are generally not recommended for identity verification due to their primary function as financial instruments rather than identification documents.

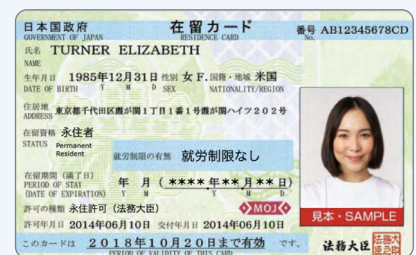
3 | Document Type Preference and Performance

Different types of Japanese identity documents yield varying success rates in verification:

RESIDENT CARD

The resident card’s clear, bilingual layout enhances OCR processing, allowing Shufti’s advanced features to provide superior reading and verification compared to competitors.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address, nationality



DRIVER’S LICENSE

Japanese driver’s licenses are complex with varied features and regional differences. Shufti’s OCR technology is specifically tailored to handle these challenges, though extra processing time may be required.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address



MY NUMBER CARD

My Number Card, commonly used in Japan for administrative and financial tasks, is increasingly favored for identity verification. Shufti's systems are optimized for it, providing fast and accurate verification.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address



HEALTH INSURANCE CARD

HIC cards are often used for identity verification in non-financial sectors. Shufti's OCR systems are trained to accurately process them, handling handwritten elements and regional variations effectively.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, address



PASSPORT

Japanese passport's complex security features, such as holograms and microtext, challenge OCR technology. Shufti's advanced OCR systems are fine-tuned to accurately capture and verify all key details, ensuring fast and reliable processing.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality, gender, place of issue, MRZ



4 | Preferred Document for Identity Verification

As Shufti, we recognize the Japanese My Number Card, Japanese resident card, and Japanese driver's licenses as preferred documents for identity verification in Japan. The My Number Card and resident card, with its biometric data and widespread use across sectors, is the leading choice, while the driver's license is also a good option if users don't have their My Number Card. Our advanced OCR technology is optimized to handle the unique features of both documents, ensuring quick and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in Japan due to its higher conversion and greater control over the verification process. This is particularly important in a market where document forgery is highly sophisticated. Onsite methods can utilize biometric and AI-driven technologies to ensure the authenticity and reliability of the verification process

2 | Data Extraction

Optical Character Recognition (OCR) is essential in Japan to accurately extract data from identity documents, especially those with complex characters like Kanji, Hiragana, and Katakana. Advanced OCR systems are necessary to handle the nuances of Japanese scripts. Moreover, OCR should be efficient enough to convert Japanese dates to Gregorian calendar dates which are originally in the Japanese era calendar.

3 | Identity Document's Backside Proof

Japanese documents usually contain information on the front and back of the document. Japanese users need to submit backside proof of the document to ensure comprehensive verification. The backside of the Japanese documents usually contains information about document number, address, and QR codes in some cases. It is recommended to provide the backside of the Japanese document while verification.

4 | Real-Time Proof Capture Vs. Proof Upload

Japanese identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**
With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying physical documents.
- **Proof Upload:**
Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of South African Identity Documents

Effective identity verification in South Africa requires a deep understanding of the distinct features and challenges of South African identity documents. Shufti's OCR and identity verification technology is optimized to handle these complexities:

1 | Linguistic Diversity

South African identity documents, including the Smart ID card and the older green barcoded ID book, reflect the country's rich linguistic diversity. While English serves as the primary language on these documents, ensuring nationwide consistency, other languages are also commonly used, depending on the region or population group.

English:

English is the dominant language on all South African ID documents. Key information such as the holder's name, ID number, date of birth and issuing authority is presented in English to facilitate understanding across the country.

Afrikaans:

As one of the country's major languages, Afrikaans is often seen alongside English on identity documents, particularly in regions where it is widely spoken. For example: "Surname" appears as "Van" and "ID Number" as "ID Nommer."

Regional Languages:

In certain areas, local languages such as Zulu, Xhosa, or Sotho may appear on ID documents. These languages are used to reflect the cultural and linguistic preferences of the local population. For example: "Surname" in Zulu is "Isibongo," while in Xhosa, it is "Ifani."

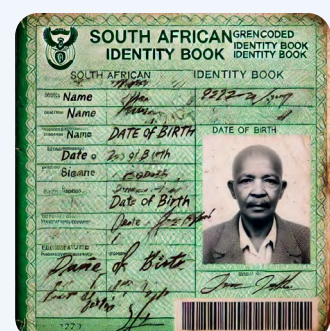
Although English and Afrikaans are the most commonly used languages, South African identity documents reflect the country's 11 official languages, depending on regional practices. This multilingual approach ensures that citizens can engage with their documents in a familiar language.

Overall, the use of multiple languages on South African ID documents highlights the nation's commitment to linguistic inclusivity while maintaining English as a unifying language for national documentation.



2 | Multiple Identity Document Format

South African identity documents may vary slightly depending on the issuing authority or region. For example, older ID books may have handwritten information, while newer smart cards are machine-readable. Shufti's continuous updates ensure its OCR and verification systems remain compatible with these variations, allowing for reliable extraction of data across all types of identity documents.



South Africa employs a range of identity documents, including the older green barcoded ID book, the newer smart ID card, and various types of passports. Each document comes with unique features and layouts.

2 | Document Types Selection

ID Card: Following documents are accepted under ID Card for South Africa.

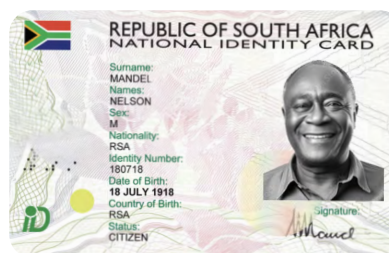
- **Green Barcoded ID Book:**

The older version of the South African ID contains a barcode and personal details in a handwritten style, making it more challenging to process automatically. This ID document was published from 1986-2013.



- **Smart ID Card:**

The modern ID card contains digital features such as a chip, and it is printed in a standardized format, making it more secure but also requiring advanced OCR to capture the embedded details. This ID document was published from 2013-present.



Driver's License: Driver's licenses are commonly used for identity verification, especially in sectors like transportation and employment. They contain basic security features such as barcodes and holograms, making them reliable for verification in lower-risk scenarios.

Passports: Passports are highly secure and typically used for international travel or high-security verification processes. They include biometric data, digital photographs, and other anti-fraud features, making them ideal for precise identity verification.

Credit/Debit Card: Credit/debit cards are generally not recommended for identity verification due to their primary function as financial instruments rather than identification documents.

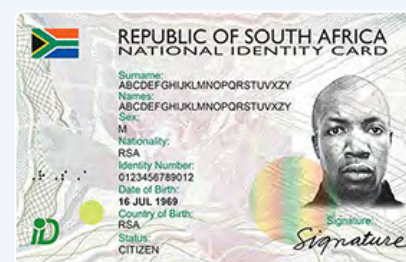
3 | Document Type Preference and Performance

Different types of South African identity documents yield varying success rates in verification:

SMART ID CARD

South African Smart ID card's strong security and clear design make it easier for Shufti to provide accurate and reliable verification, surpassing other systems.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, gender, nationality



DRIVER'S LICENSE

South African driver's license is ideal for KYC due to its detailed data and security. Shufti's OCR technology ensures high accuracy and conversion rates by efficiently processing its varied formats.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, face image, vehicle class



GREEN BARCODED ID CARD

Green Barcode ID Card is recommended for KYC due to its detailed personal data and security features. Shufti achieves high conversion rates by accurately processing its barcode and information.

Extraction Parameters: Name, date of birth, issue date, document number



PASSPORT

Passports are recommended for KYC due to its globally recognized format and secure features. Shufti delivers high conversion rates by accurately reading and verifying passport details through advanced OCR technology.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, gender, nationality



4 | Preferred Document for Identity Verification

As Shufti, we recognize the South African Smart ID Card, Passport, and Driver's License as the preferred documents for identity verification in South Africa. The Smart ID card, with its advanced security features and standardized format, is the leading choice, while the Passport is an excellent alternative for international verification. The driver's license is also a good option for those without their Smart ID card. Our advanced OCR technology is optimized to handle the unique features of these documents, ensuring fast and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in South Africa for its higher accuracy and better control over the verification process. This is crucial in a market where document fraud can be a concern. Onsite methods leverage biometric and AI-driven technologies to ensure the authenticity and reliability of the verification process.

2 | Data Extraction

Optical Character Recognition (OCR) is essential in South Africa to accurately extract data from identity documents, especially those issued in multiple languages like English, Afrikaans, Zulu, and Xhosa. Advanced OCR systems are required to handle the variations in text, security features, and regional formats. Additionally, OCR must efficiently process both old and new document types, such as Smart ID cards and green barcoded ID books, ensuring accurate data extraction across all formats.

3 | Identity Document's Backside Proof

In South Africa, while documents like the Smart ID card and driver's licenses often have essential details on the front side, the Smart ID card also contains important information such as the issue date and document number on the backside. To ensure a thorough verification process, merchants should enable the backside proof required parameter. This ensures that all critical information is captured and verified, maintaining compliance with regulatory standards and preventing potential delays in the verification process.

4 | Real-Time Proof Capture Vs. Proof Upload:

South African identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**
With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying physical documents.
- **Proof Upload:**
Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Sri Lanka Identity Documents

This guide helps Sri Lankan merchants, institutions, and service providers understand identity verification challenges, emphasizing the importance of accurate verification in finance, telecommunications, and e-commerce. It stresses compliance with KYC and AML regulations to avoid penalties and loss of trust. Shufti’s advanced technology offers a solution with OCR, biometric verification, and document validation, handling Sinhala and Tamil scripts, complex diacritics, and Gregorian/Buddhist date conversions for accurate onsite and offsite verification.

1 | Linguistic and Script Challenges

Sinhala Script: Sinhala, the primary language of approximately 75% of Sri Lankans, uses an abugida script with over 54 base letters and numerous diacritical marks. This complexity poses challenges for OCR technology. For instance, letters such as “අ” (A) and “ආ” (AA) can appear similar but represent different sounds. Many Sinhala letters look alike, and subtle variations in diacritics can alter meanings, demanding high precision in OCR processing. Sinhala often lacks spaces between words, so Shufti’s OCR system uses AI to understand context and identify word boundaries.

ක	ඛ	ග	ඝ	ඞ	ඟ	ච	ඡ	ඣ	ඤ	ඦ	
ka	kha	ga	gha	ṅa	ṅga	ca	cha	ja	jha	ṅa	
[ka]	[ka]	[gā]	[gā]	[ŋa]	[ṅga]	[tʃa]	[tʃa]	[dʒa]	[dʒa]	[ŋa]	
ට	ඨ	ඩ	ඪ	ණ	ඬ	ද	ධ	඲	ඳ	ප	
ṭa	ṭha	ḍa	ḍha	ṇa	ṅḍa	ta	tha	da	dha	na	ṅḍa
[tʃa]	[tʃa]	[dā]	[dā]	[na]	[ṅḍa]	[ta]	[ta]	[da]	[da]	[na]	[ṅḍa]
ප	ඵ	බ	භ	ම	ඹ	ය	ර	ල	ව	ළ	
pa	pha	ba	bha	ma	m̐ba	ya	ra	la	va	ḷa	
[pa]	[pa]	[ba]	[ba]	[ma]	[m̐ba]	[ja]	[ra]	[la]	[va]	[la]	
ශ	ෂ	ස	ෂ	හ	ආ						
śa	ṣa	sa	ṣa	ha	fa						
[ʃa]	[ʃa]	sa	[ʒa]	[hā]	[fā]						

Tamil Script: Tamil, spoken by about 18% of Sri Lankans, has 12 vowels, 18 consonants, and 247 combinatory characters. The complexity of Tamil ligatures and multi-script documents adds to the OCR challenge. Tamil script features many ligatures formed by combining characters. Shufti’s OCR system uses sophisticated algorithms to detect and accurately separate these characters.

2 | Diacritics in Sinhala and Tamil

Diacritics modify the pronunciation and meaning of letters. For instance, in Sinhala, “ක” (ka) can become “කී” (ki) with a diacritical mark. Tamil diacritics also change consonant sounds. Shufti’s OCR technology is adept at recognizing and differentiating diacritics, using NLP techniques to ensure accurate character recognition.

3 | Continuous Text Without Spaces

Both Sinhala and Tamil often use continuous text without spaces, complicating word separation for OCR systems. Shufti's solution employs AI to segment continuous text based on linguistic rules, ensuring accurate extraction of critical information.

වික්‍රාන්තද අවේශකරණය සිංහල සිතමාවේ ප්‍රගතිශීලී විවිධාකාරයෙන් දායක වී තිබේ. ඔහුටම සුවිශේෂ වූ ශෛලියකින් ගිත රචනා කිරීමට අමතරව කතා පිටපත් සහ තිරතාවක සැකසීමටත් දෙබස් රචනයටත් සම්බන්ධ වී තිබෙනවා. එසේම වික්‍රපට කිහිපයක කුඩා වර්ග පණ ගන්වන්නටද ඔහුට අවස්ථාව ලැබී තිබෙනවා. වික්‍රාන්තදයන් විසින් රචිත වසර පනහක් පමණ පැරැණි වූ ගිත පවා අදත් ඉතාමත් ජනප්‍රිය තත්වයේ පවතිනවා.

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4 | Date Formats and Calendars

- **Gregorian Calendar:** Sri Lankan documents, such as the National Identity Card and Driver's License, use the Day-Month-Year format (e.g., 25-12-2020). Shufti's OCR technology must handle various date formats within documents.
- **Buddhist Era Calendar:** The Buddhist Era, used in some Sri Lankan documents, is 543 years ahead of the Gregorian calendar. For example, 2023 Gregorian corresponds to the 2566 Buddhist Era. Shufti's system automatically converts Buddhist Era dates to the Gregorian format for consistency.

A Merchant's Guide to Identity Verification in Sri Lanka

In Sri Lanka, identity verification is governed by various regulations, with the key focus being on the Data Protection Act and (KYC) guidelines. These regulations outline how businesses must handle and process personal data during identity verification to protect individuals' privacy and prevent misuse. Merchants and service providers must ensure compliance with KYC and AML regulations to prevent fraud, money laundering, and other illegal activities. Non-compliance can result in severe penalties, including hefty fines and reputational damage. Shufti offers two Verification Modes: Onsite Verification Mode and Offsite Verification Mode - these modes allow merchants to choose the best approach based on their specific use cases and requirements.

1 | Verification Modes

- **Onsite Verification**
The onsite verification process by Shufti offers an intuitive and direct interaction for end users through the sophisticated iFrame/Verify component. This user-centric approach enables individuals to seamlessly submit the required verification proofs, such as ID documents etc, while receiving real-time guidance to navigate the verification process effortlessly. Upon completion, the verification results are made readily available to clients through the comprehensive Back Office portal or can be conveniently delivered via an API response, providing flexible and efficient access to vital information.
- **Offsite Verification**
The offsite verification process by Shufti is characterized by its efficient and straightforward approach. In this, clients are responsible for gathering the necessary verification proofs/ data from end users. This process streamlines the collection of essential data, enabling clients to submit it directly to Shufti effortlessly for verification. The verification results are conveniently accessible either via the comprehensive Back Office portal or can be readily retrieved through an API response. This flexibility ensures clients have efficient access to critical information.

2 | Document Types Selection

National ID Card: The national identity card (NIC) is the primary identification document in Sri Lanka, used for purposes such as banking, government services, and voting.

- **Older Version (Pre-2016):** The older NIC, introduced in the 1970s, features a simple design with a photograph, personal details, and a handwritten NIC number. It lacks modern security features, which makes it more vulnerable to forgery and less suitable for automated processing. Making it more secure but also requiring advanced OCR to capture the embedded details. This ID document was published from (2013- beyond).
- **Newer Version (Post-2016):** In 2016, Sri Lanka introduced an updated version of the NIC with enhanced security features such as barcodes, QR codes, holograms, and machine-readable zones (MRZ). These new elements improve security, reduce the risk of fraud, and enable more reliable verification in digital and physical transactions.



Driver's License:

- **Sri Lankan Driver's License:** This is a commonly used identity document, featuring essential security elements like barcodes, holograms, and a photograph. It is a preferred document for identification in sectors like transportation, employment, and law enforcement.
- **Electronic Driver's License (eDL):** An emerging technology in Sri Lanka, eDLs use embedded chips to securely store personal and biometric data. This digital format enhances security and enables contactless verification but depends on compatible technology.



Passport: The Sri Lankan passport is a highly secure document used primarily for international travel. It includes biometric data and multiple layers of security, such as digital photographs and holograms, making it a strong choice for high-security identity verifications.

Credit/Debit Card: These are not recommended for identity verification in Sri Lanka as they are primarily financial instruments rather than identification documents.

3 | Document Type Preference and Performance

Different types of Sri Lanka identity documents yield varying success rates in verification:

ID CARD

The robust security features and clear design of the Sri Lankan Smart ID card enhance Shufti's ability to deliver accurate and reliable verification, outperforming other systems.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, gender, nationality



DRIVER'S LICENSE

A Sri Lankan driver's license is well-suited for KYC due to its comprehensive data and security features. Shufti's OCR technology guarantees high accuracy and conversion rates by effectively processing its diverse formats.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, face image, vehicle class



PASSPORT

Shufti's advanced OCR systems are optimized to accurately capture and verify intricate details on the Sri Lankan passport, overcoming challenges posed by holograms and microtext for swift processing.

Extraction Parameters: Name, date of birth, date of issue, document number, expiry date, nationality, gender, place of issue, MRZ



4 | Preferred Document for Identity Verification

At Shufti, we acknowledge the Sri Lankan national ID card, passport, and driver's license as the preferred documents for identity verification in Sri Lanka. The Smart ID card stands out as the top choice due to its advanced security features and standardized format, while the passport serves as an excellent alternative for international verification. The driver's license is also a viable option for individuals who do not possess a NIC. Our advanced OCR technology is optimized to accommodate the unique characteristics of these documents, ensuring quick and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred in Sri Lanka for its higher accuracy and better control over the verification process. This is crucial in a market where document fraud can be a concern. Onsite methods leverage biometric and AI-driven technologies to ensure the authenticity and reliability of the verification process.

2 | Data Extraction

Optical Character Recognition (OCR) is crucial in Sri Lanka for accurately extracting data from identity documents issued in multiple languages, including Sinhala and Tamil. Advanced OCR systems are needed to navigate text variations, security features, and regional formats, efficiently processing both old and new document types like national identity cards and driver's licenses to ensure reliable data extraction.

3 | Identity Document's Backside Proof

In Sri Lanka, key details on documents like the national ID card and driver's licenses are usually found on the front, while the back of the NIC contains the issue date, document number, and additional information. Moreover, previous versions of the ID card contain all the personal details on the backside. To ensure all necessary data is captured and to maintain compliance, merchants should enable the Backside Proof Required parameter, preventing verification delays.

4 | Real-Time Proof Capture Vs. Proof Upload:

Sri Lankan identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**
With Shufti's advanced auto-capture technology, capturing identity proofs in real-time ensures a smooth, efficient, and accurate verification process. This feature automatically detects the document and captures it without requiring user intervention, making it one of the fastest and most reliable options for verifying Physical documents.
- **Proof Upload:**
Users also have the option to upload pre-captured images of the identity documents. The upload process is seamless, allowing documents to be verified hassle-free. This is ideal for users who already have pre-captured images of their identity documents and prefer a straightforward upload and verification process.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

The Top 10 Most Difficult Countries for Identity Verification

Understanding the Challenges of Libyan Identity Documents

Verifying identity documents in Libya presents unique challenges due to the country's complex linguistic, social, and administrative structures. Implementing effective identity verification systems requires advanced technology to handle these specific hurdles. This guide explores the key challenges associated with verifying Libyan identity documents and how Shufti can help merchants overcome them.

1 | Linguistic and Script Complexity

Libya's official language, Arabic, presents significant challenges for Optical Character Recognition (OCR) due to its unique characteristics:

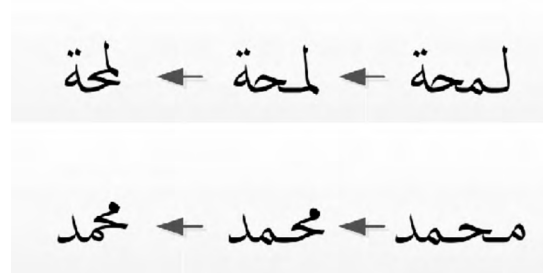
Cursive Script and Ligatures: Arabic is written in a cursive script, with letters changing shape depending on their position in a word (beginning, middle, end, or isolated). For example, the letter "ح" (ā) has four forms:

Isolated: ح

Beginning: حـ (e.g., حَمَزَة)

Middle: ح (e.g., مُحَمَّد)

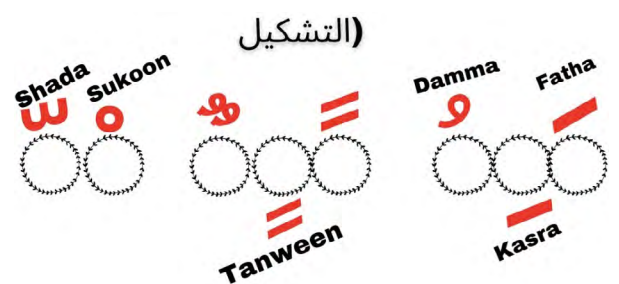
End: ح (e.g., سَمُوح)



The dynamic nature of the script complicates recognition, requiring sophisticated OCR technology to accurately identify letters based on their contextual form.

Complex Diacritical Marks: Arabic employs diacritical marks (harakat) to modify pronunciation and meaning. For example:

عَلِمَ (flag) vs. عَلِمَ (he knew) Failure to capture these subtle marks accurately can lead to significant errors in interpreting names and other key data.



2 | Handwritten ID Documents

One of the most significant challenges in verifying Libyan identity documents is the inclusion of handwritten information, particularly on older documents or those issued in certain regions. Both Libyan ID cards and driver's licenses can feature handwritten text, which poses challenges for traditional OCR systems. Advanced OCR technology is essential for accurately recognizing and processing these non-standard text formats and varying handwriting styles.



3 | Complex Naming Structure and Cultural Differences

In Libya, names typically follow a structure that differs from Western conventions, adding complexity to identity verification processes:

- **Given Name (First Name):** The individual's personal name, e.g., "Umer," "Fatima."
- **Father's Name (Middle Name):** Represents the individual's patrilineal heritage, e.g., "Salah," "Umair."
- **Surname/Title (Last Name):** Usually signifies the Title given to a person by tribal affiliation or family, e.g., "Al-Tairi".
- **Tribal or Extended Family Name:** Sometimes included for tribal or regional background, e.g., "Al-Misrati," "Al-Warfali."



In addition to this, Arabic personal names can be complex, often including tribal or familial components, and can have multiple Romanized spellings. For example:

" محمد " can be transliterated as Muhammad, Mohammad, or Mohamed



4 | Bilingual ID Documents

Though Arabic is the dominant language, certain documents, such as Libyan passports, also include English text. This dual-language format can be challenging for verification systems, as they must switch between Arabic and English while preserving context and accuracy.

A Merchant's Guide to Identity Verification in Libya

In Libya, merchants face specific challenges when verifying key identity documents such as national ID cards, passports, and driver's licenses. Shufti offers two distinct Verification Modes: Onsite Verification Mode and Offsite Verification Mode — allowing merchants to choose the most appropriate method based on their use cases.

1 | Verification Modes

• Onsite Verification

The onsite verification process by Shufti offers an intuitive and direct interaction for end users through the sophisticated iFrame/Verify component. This user-centric approach enables individuals to seamlessly submit the required verification proofs, such as ID and address documents, etc while receiving real-time guidance to navigate the verification process effortlessly. Upon completion, the verification results are made readily available to clients through the comprehensive Back Office portal or can be conveniently delivered via an API response, providing flexible and efficient access to vital information.

• Offsite Verification

The offsite verification process by Shufti is characterized by its efficient and straightforward approach. In this, clients are responsible for gathering the necessary verification proofs/data from end users. This process streamlines the collection of essential data, enabling clients to submit it directly to Shufti effortlessly for verification. The verification results are conveniently accessible either via the comprehensive Back Office portal or can be readily retrieved through an API response. This flexibility ensures clients have efficient access to critical information.

4 | Preferred Documents for Identity Verification

As Shufti, we recognize the Libyan national ID card and passport as the preferred documents for identity verification in Libya. The national ID card and passport, with their robust security features, are the primary choices for reliable identity verification. The driver's license is also widely accepted for verification, particularly for domestic transactions. Our advanced OCR technology is optimized to handle Arabic scripts, document-specific features, and handwritten elements, ensuring fast and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is preferred due to the complexity of handwritten information in Libyan documents. AI-driven and biometric technologies further enhance reliability. This method offers a higher accuracy rate and better control over the verification process.

2 | Data Extraction

OCR technology plays a crucial role in Libya, particularly due to the prevalence of handwritten text in identity documents like ID cards and driver's licenses. Advanced OCR systems must handle the complexities of Arabic scripts, characters, and symbols. Furthermore, these systems should be capable of accurately processing handwritten information, as both ID cards and driver's licenses often contain such text.

3 | Identity Document's Backside Proof

Libyan identity documents frequently contain critical information on the backside, including addresses and expiry dates. Merchants should ensure that both sides of the document are submitted to guarantee comprehensive verification. This practice is vital for capturing all relevant details and ensuring the authenticity of the document.

4 | Real-Time Proof Capture vs. Proof Upload

Libyan identity documents can be verified through two flexible proof methods: real-time proof capture and proof upload, giving users the option to choose their preferred method based on convenience and accessibility.

- **Real-Time Proof Capture:**
Shufti's auto-capture technology automatically detects and captures documents, ensuring a fast and reliable verification process. This method is highly efficient for real-time interactions.
- **Proof Upload:**
For users who already have scanned documents, proof upload provides a simple and efficient method for verification. This approach is ideal for pre-scanned copies of documents, offering convenience and ease of use.

Merchants can enable **Allow Online** (real-time proof capture) and **Allow Offline** (proof upload) options available in the Verification Setting tab. By offering both real-time capture and proof upload, Shufti ensures flexibility, providing the best user experience regardless of whether physical or electronic documents are being verified.

5 | Verification Settings

Given that many Libyan ID cards and driver's licenses include handwritten information, it is crucial for merchants to allow handwritten documents in their verification processes. Allowing handwritten documents can significantly increase the conversion rate by ensuring that documents with handwritten elements are not excluded from verification. This approach enhances the flexibility of the verification process and ensures that all valid documents are considered, improving overall verification accuracy and user experience.

The Top 10 Most Difficult Countries for Identity Verification

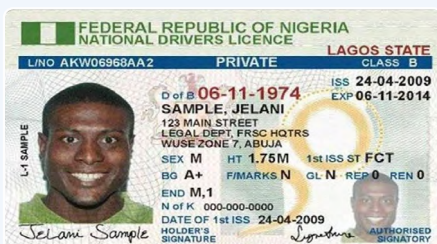
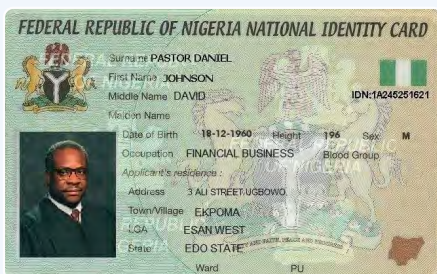
Understanding the Challenges of Nigerian Identity Documents

Nigeria's identity verification systems are fraught with numerous complexities, arising from a combination of socio-cultural, infrastructural, and technological factors. As the country transitions towards digital identity solutions, recognizing and addressing these challenges is crucial for ensuring secure, accurate, and inclusive verification processes. Shufti's OCR and verification technology is specifically designed to address these challenges and provide accurate, efficient, and reliable identity verification solutions.

In this section, we will discuss the various challenges related to Nigerian identity documents, highlighting how our technology overcomes these hurdles to ensure seamless verification.

1 | Fragmentation of Identification Systems

Nigeria has multiple identity systems managed by various agencies, including the National Identity Management Commission (NIMC), Federal Road Safety Corps (FRSC), and the Independent National Electoral Commission (INEC). This fragmented ecosystem results in duplicative efforts, inefficient service delivery, and inconsistencies in identity verification processes. Despite efforts to centralize identities through the NIMC's National Identification Number (NIN), integration across sectors remains incomplete, which complicates data management and verification.



2 | Inconsistent Date Formats

Nigeria faces challenges with inconsistent date formatting, as there is no standardized system for writing dates on documents. Both the American (MM/DD/YYYY) and British (DD/MM/YYYY) formats are commonly found on official documents such as passports and driver's licenses.

This variation complicates data extraction and validation, requiring sophisticated systems to accurately interpret and process date information while minimizing errors. For optimal accuracy, OCR solutions need to be highly flexible, equipped with rules and algorithms that account for these regional discrepancies in both address and date formats.

3 | Low Document Quality

Nigeria's National Identification Number (NIN) slips are typically printed on paper in black and white, making them prone to wear and tear over time. The document quality tends to degrade quickly, with fading text and smudging, which can affect the clarity of essential details like names, dates, and NINs. Additionally, the paper-based nature and low-quality print can introduce significant challenges for OCR (Optical Character Recognition) systems, which struggle to accurately capture data from worn or low-resolution documents. Many older identity documents are partially or fully handwritten, particularly in rural areas.



A Merchant's Guide to Identity Verification in Nigeria

In Nigeria, merchants face significant challenges when verifying identity documents like NIN slips, passports, ID cards and driver's licenses. Shufti offers two Verification Modes: Onsite Verification and Offsite Verification - these modes allow merchants to choose the best approach based on their specific use cases and requirements.

1 | Verification Modes

- **Onsite Verification**

The end-user directly interacts with Shufti's interface for real-time document verification. The system automatically captures the best frame using advanced algorithms to ensure optimal quality, offering users a seamless experience with clear, step-by-step instructions. Users can switch devices if their camera is not functioning properly, ensuring the process can continue without interruption. The platform also provides options to edit OCR-extracted data, which is then cross-validated against the original documents, further ensuring accuracy. Real-time guidance, retries, and cross-device validation help reduce errors and fraudulent submissions, leading to higher conversion rates.

- **Offsite Verification**

The merchant is responsible for collecting and submitting the end-user's documents to Shufti for verification. Shufti's pre-trained machine learning models examine these submissions for authenticity by analyzing features like holograms, watermarks, and tampering. Offsite mode is particularly useful in regions with poor internet connectivity, as it allows users to bypass the need for live interaction and real-time verification, ensuring the process can still be completed successfully without the risk of interruptions.

2 | Document Types Selection

In Nigeria, various identity documents serve different purposes and offer varying levels of security and verification capabilities. Here's a brief overview of some of the key identification documents and their features:

ID Card: Nigerian documents that usually fall under the category of ID Cards include:

- **National ID Card:** Widely used for critical activities such as banking, mobile phone registration, and voting, the National Identification Number (NIN) card contains essential biometric data, a chip for secure data storage, and advanced security features like holograms and MRZ. It serves as one of the most reliable forms of identification in the country.
- **NIN Slip:** This form of identification contains user information including first, middle and last name, date of birth, issue and expiration dates along with address. NIN slips are widely used for identification in Nigeria.
- **Voter Card:** Primarily used for political purposes, the Nigerian voter's card plays a significant role in elections. Although it lacks biometric data, it remains an important tool for verifying identity in certain contexts.

Driver's License: A versatile document used across various sectors, the Nigerian driver's license includes both QR codes and barcodes to enhance its security. The card displays key details like name, address, date of birth, and issuance information, making it ideal for medium-security verifications.

Passport: Nigerian passports are designed with multiple layers of security, including biometric data, a machine-readable zone (MRZ), and holographic features. These elements ensure the document's authenticity and make it suitable for high-security verifications, such as international travel and banking.

Credit/Debit Card: It is never recommended for ID verification. But includes:

- **Bank Verification Number (BVN):** The BVN is a financial identity mechanism linked to biometric data. It is used in the banking sector to enhance security and mitigate fraud, making it a trusted form of verification in financial transactions.

3 | Document Type Preference and Performance

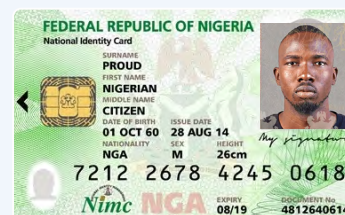
Different types of Nigerian identity documents yield varying rates in verification:

ID CARD

Nigerian ID cards are preferred documents for KYC verification due to their simple design and easily readable data.

Format: Physical document, e-document

Extraction Parameters: Name, date of birth, NIN, issue date, expiry date, nationality



NIN SLIP

The temporary NIN slip, often used before the issuance of the official e-ID card, presents a unique challenge due to its less durable format and basic layout. Shufti's OCR technology is optimized to accurately capture essential information despite these limitations.

Format: Paper-based, black & white

Extraction Parameters: Name, date of birth, NIN, issue date, address, gender, nationality



DRIVER'S LICENSE

Nigerian driver's licenses feature multiple security elements and a standardized design across all states. Shufti's OCR technology is specifically adapted to handle these features, ensuring reliable data extraction.

Format: Physical document

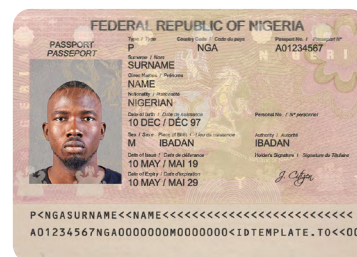
Extraction Parameters: Full name, date of birth, issue date, document number, expiry date



PASSPORT

Nigerian passport's security features, such as watermarks, holograms, and embedded chips, pose a challenge to standard OCR systems. However, Shufti's advanced technology is specifically designed to accurately extract and verify all essential data from these passports, providing reliable and fast processing.

Extraction Parameters: Name, date of birth, issue date, document number, expiry date, nationality, gender, place of issue



4 | Preferred Documents for Identity Verification

As Shufti, we recognize the Nigerian ID card and driver's licenses as preferred documents for identity verification in Nigeria. The ID card and driver's license, with its clear and concise structure, and widespread use across sectors, is the leading choice. Our advanced OCR technology is optimized to handle the unique features of both documents, ensuring quick and accurate data extraction for secure identity verification.

Verification Settings

1 | Verification Mode (Onsite vs. Offsite)

Onsite verification is the preferred method in Nigeria for high-security identity checks, particularly for documents like the national ID card (NIN) or passport, where biometric data plays a crucial role. Onsite verification ensures maximum security, making it ideal for businesses dealing with sensitive information. Offsite verification, though convenient, may not offer the same level of precision for high-stakes verifications.

2 | Data Extraction

Given the complexity of Nigerian documents - ranging from black and white documents, worn out since ages to inconsistent date formats - advanced Optical Character Recognition (OCR) technology is essential for reliable data extraction. Shufti's system is equipped to accurately interpret information from Nigerian identity documents, such as names, dates, and addresses, overcoming challenges related to date formats and non-standardized data fields.

3 | Identity Document's Backside Proof

A thorough verification process requires submitting the backside of Nigerian identity documents, especially for driver's licenses and NIN cards. These often contain critical information such as QR codes, document numbers, and addresses that are necessary for a complete and accurate verification.

4 | Real-Time Proof Capture vs. Proof Upload

Shufti offers two approaches to identity verification:

- Real-Time Proof Capture:**
 Using Shufti's auto-capture technology, merchants can ensure precise and seamless real-time verification. This method reduces errors and speeds up the process, delivering results instantaneously.
- Proof Upload:**
 Users also have the option to upload pre-captured images of their documents, providing flexibility in how verification is performed. However, this method may introduce slight delays compared to real-time capture.

5 | Verification Settings

Nigerian identity documents, such as NIN slips, present unique verification challenges due to their format and issuance. The NIN slip is typically available as a paper-based black and white document. This necessitates to allow paper based, black and white documents to ensure high conversion rate.

Additionally, the Nigerian NIN card is available in two formats: a physical paper-based version and an electronic document. Both formats require distinct verification approaches to ensure accuracy. The electronic version of the NIN card is typically available as a PDF. This necessitates merchants to allow e-documents in Document Verification.

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Shufti is based in the United Kingdom and operates offices worldwide.



United States

16200 SW Pacific Hwy
Suite H PMB 1053
Tigard, OR



Cyprus

Arch. Makarios
III Avenue 229
in Limassol



Dubai

Unit 507, Level 5,
Gate District Precinct
Building O3, DIFC,
Dubai



Hong Kong

8 Queen's Road
East, Wan Chai,
Hong Kong



Pakistan

322-G3 Main Blvd
Johar Town, Lahore,
Pakistan



Singapore

68 Circular
Road #02-01,
Singapore



United Kingdom

Office 408 Coppergate
House, 10 Whites Row,
London E1 7NF

shufti.com