

afen
Blockchain Group

WHITEPAPER

MARCH 2021

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1. Overview

We aim to become “a leading hub for African Blockchain-related collaborations with a focus on Decentralized Finance, Arts, Real Estate and Education. AFEN has the objective of combining blockchain’s immutable data structure and the backing of government bodies to provide legitimacy to products.

African culture and art are in abundance and if we package and verify the authenticity of its sourcing, buyers will be more willing to invest in the art. Our brand can be legitimate and the promotion of African culture.

Real-Estate NFT’s paired with Government backing would be at the forefront of innovation as the buyer will be able to trust the legitimacy of their ownership. This will be somewhat of a first in the space.

The value of the company is legitimacy. Government backing, decentralized ownership, and revenue being generated to original creators and owners.

2. Real Estate

The global real estate market is expected to generate a revenue of USD 4,263.7 billion by 2025. Factors such as the increasing demand for housing real estate space, rapid urbanization through migration in search of better amenities. Rapid economic development in the developing regions and countries like India, China, and many African countries has enhanced income levels and helped in the real estate market.

The real estate market involves buying, selling, and renting/leasing of property, and condominiums for commercial and personal household usage. Commercial real estate business had grown exponentially in the last decade owing to an increased number of key players entering the regional market as well. Government reforms, lower rentals, mortgage rates in the developing countries are likely to boost the market over the forecast period.

According to the United Nations, approximately 50% of the population lives in urban areas and this figure is set to reach up to 65% in the forecast period owing to the

migration into cities that turn into megacities with bustling urban amenities and lifestyle.

2.1. Real Estate in Africa

In the past years, private equity firms have taken Africa's real estate market by storm with millions of dollars in investments, especially in the commercial and hospitality sectors, and we believe the Nigerian market is one of the most sought after, due to the huge returns possible.

The growing interest in the Nigerian market is as a result of huge demand buoyed by increasing urban population and changing shopping culture among the expanding middle class, which has resulted in the construction of numerous shopping malls.

Growth in the sector has also been enhanced by the entrance and expansion of new and existing multinational companies in sectors such as ICT, oil and gas, retail merchandising and finance. The upturn in economic activity; experienced from Q4 2011 to date, has led to an increase in demand and supply for commercial and high-end residential real estate development, particularly in the key cities of Abuja, Lagos, and Port Harcourt.

The Nigerian market remains attractive as there are numerous opportunities available in the sector. There are opportunities for both institutional investors and real estate developers. We have identified viable opportunities in the following segments of the market for the immediate term:

- Hospitality
- Shopping malls
- Office blocks, and
- Serviced flats

3. Artⁱⁱ

The global art market is a marketplace of buyers and sellers trading in the services, articles, and works-of-art and culture commonly associated with the various arts. While the market remains predominantly offline, online sales have seen increasing growth in recent years. The global art market was valued at over 67 billion U.S. dollars in 2018, up from almost 64 billion the previous year. This increase is also shown in the volume of global art sales which reached approximately 40 million transactions in 2018, up from 39 million the previous year.

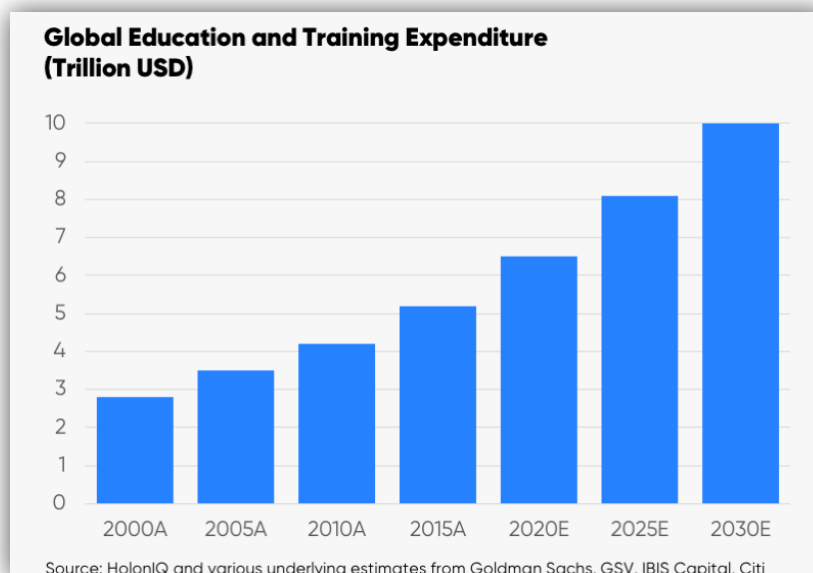
3.1 Art in Africa

African art and culture have thrived for generations, however, historically it has been challenging for local creatives and collectors in Africa to preserve the value of cultural assets that they produce, or own.

Traditional fine art has a huge market, which has been used by affluent investors to diversify their portfolios, but it has been largely inaccessible to consumers and retail investors due to gatekeepers like auction houses that influence what art is deemed “valuable”.

4. Educationⁱⁱⁱ

Global Education and Training Expenditure is set to reach at least \$10T by 2030 as population growth in developing markets fuels a massive expansion and technology drives unprecedented re-skilling and up-skilling in developed economies.



The next decade will see an additional 350 million post-secondary graduates and nearly 800 million more K12 graduates than today. Asia and Africa are the driving force behind the expansion.

The world needs to add 1.5 million teachers per year on average, approaching 100 million in total. 50% teach in Pre-K and Primary. Post-Secondary teaching will undergo the biggest expansion and change as the role of the teacher represents more of that of a mentor/coach than ‘sage on the stage’.

4.1. Education in Africa

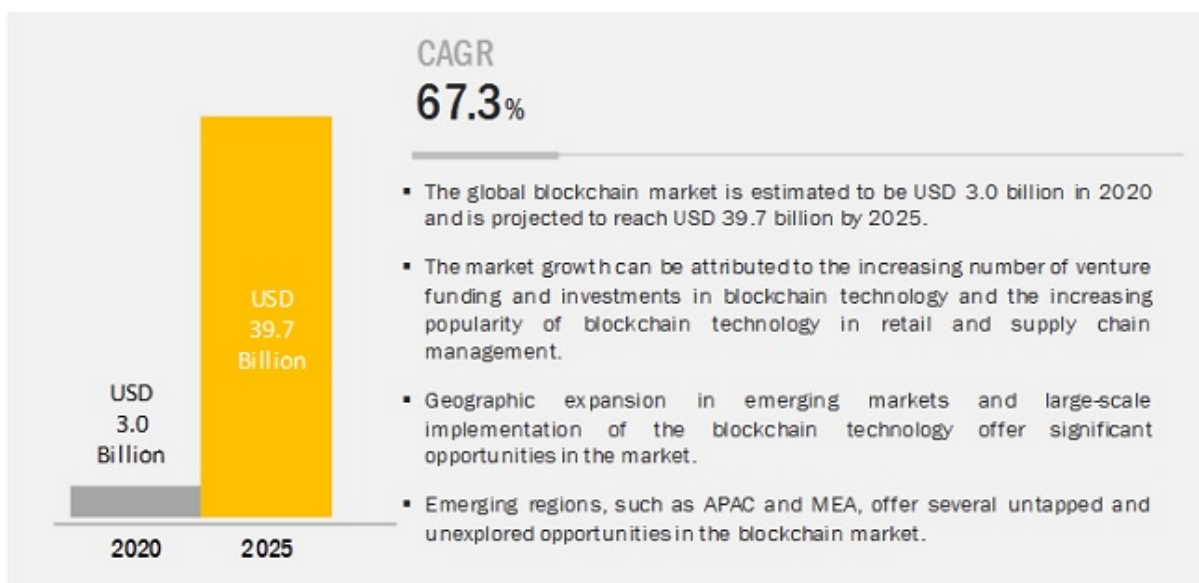
Of all regions, sub-Saharan Africa has the highest rates of education exclusion. Over one-fifth of children between the ages of about 6 and 11 are out of school, followed by one-third of youth between the ages of about 12 and 14. According to UIS data, almost 60% of youth between the ages of about 15 and 17 are not in school.

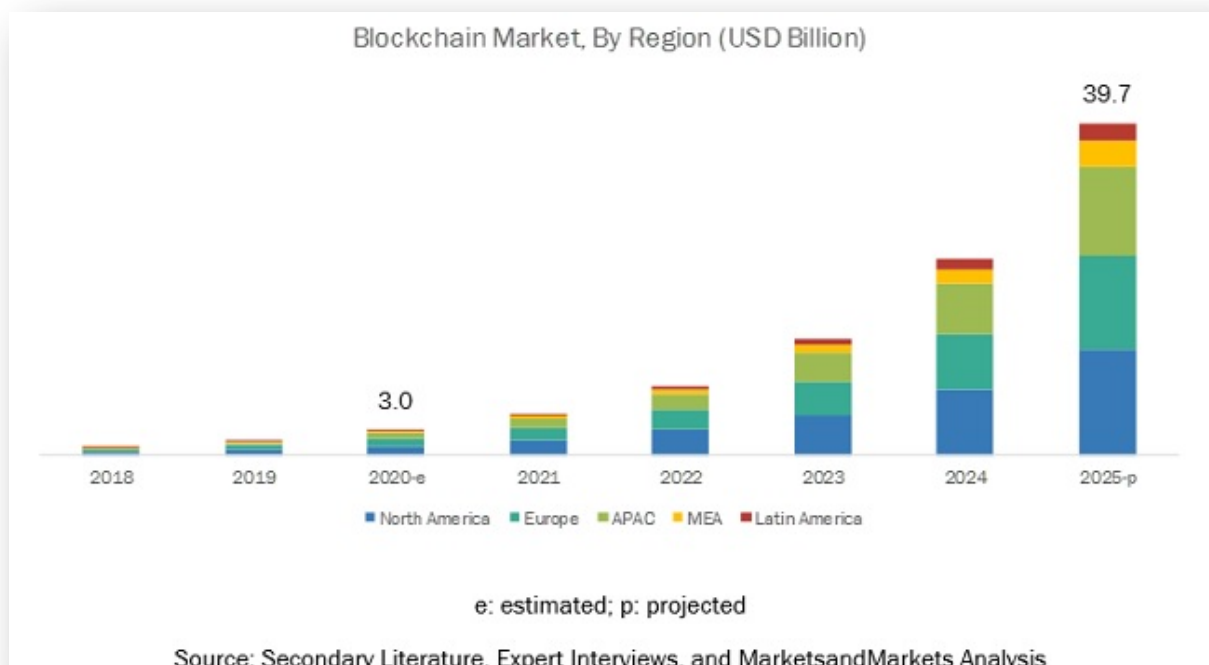
Without urgent action, the situation will likely get worse as the region faces a rising demand for education due to a still-growing school-age population.

5. Blockchain: Revolutionizing the Market^{iv}

The global blockchain market size is expected to grow from USD 3.0 billion in 2020 to USD 39.7 billion by 2025, at an impressive Compound Annual Growth Rate (CAGR) of 67.3% during 2020–2025. The increasing need for simplifying the business processes and need for supply chain management applications integrated with the blockchain technology will drive the overall blockchain market.

Attractive Growth Opportunities in the Blockchain Market





5.1. Blockchain & Real Estate

Real estate has not escaped blockchain disruption either. Previously, transacting high value assets such as real estate exclusively through digital channels has never been the norm. Real estate transactions are often conducted offline involving face-to-face engagements with various entities. Blockchain, however, opened up ways to change this. The introduction of smart contracts in blockchain platforms now allows assets like real estate to be tokenized and be traded like cryptocurrencies like bitcoin and ether.^v

Trading real estate this way varies. Here are six ways blockchain has changed the real estate game:

1. **Platforms and Marketplaces.** Blockchain introduces new ways to trade real estate and can enable trading platforms and online marketplaces to support real estate transactions more comprehensively.

2. No Intermediaries. Cutting out the intermediaries will result in buyers and sellers getting more out of their money as they save on commissions and fees charged by these intermediaries. This also makes the process much quicker as the back-and-forth between these middlemen gets cut.
3. Liquidity. As tokens, real estate can be readily traded. A seller does not have to wait for a buyer who can afford the whole property to get some value out of their property.
4. Fractional Ownership. Through blockchain, investors would simply have to access a trading app to buy and sell even fractions of tokens as they see fit. In addition, fractional ownership would also help them avoid managing the properties themselves such as maintenance and leasing.
5. Decentralization. Blockchain commands trust and security as a decentralized technology. Information stored in the blockchain is accessible to all peers on the network, making data transparent and immutable.
6. Costs. Beyond the savings made by cutting out intermediaries' professional fees and commissions, there are other costs such as inspections costs, registration fees, loan fees, and taxes associated with real estate. These costs even vary depending on the territory that has jurisdiction. Like intermediaries, these can be reduced or even eliminated from the equation as platforms automate these processes and make them part of the system.

Employing real estate agents to market property can be costly to property owners and consumers, which creates countless extra fees and processes involved in property purchase that go beyond the price of the property. But blockchain technology helps to cut down some of those costs by reducing the intermediaries.

Blockchain is essentially an online ledger that manages recorded transactions. What makes it innovative is that the ledger is distributed, meaning anyone connected to the network has a copy of it.

5.2. Blockchain & Art

Art and NFTs allow users to exchange digital ownership in a fashion that was not capable before. Becoming a collector of an art piece allows you to own it and as you sell it there is a contract that grants the creator or minter a royalty.

Thanks to blockchain technology, new platforms are arising and driving a quiet revolution in how art is being bought, sold, supported, enjoyed, and even created.

Using tokens to represent assets on a blockchain offers several advantages for art collectors:^{vi}

1. Own shares of artwork. For one, it can make the process of securitization much easier and less costly than it is today, involving fewer and sometimes no intermediaries. That in turn makes fractional ownership of expensive pieces of art (or any highly valuable item) much more viable than has been in the past.
2. Verify authenticity and provenance. Because tokens can be used to represent information as well as assets, blockchain-based platforms can allow large groups of people to share trusted data without relying on a central authority. This too can lead to larger, more liquid and, importantly, more secure, and trustworthy online art markets – markets in which credentials for artworks, artists, buyers, and sellers can be easily authenticated and where transfers of value can be securely carried out directly between parties.
3. Protect 'digital Picassos'. Because blockchain-based tokens are unique and uncopyable, they can be used as the basis for purely digital artworks that cannot be forged and whose ownership can be clearly asserted, maintained, and transferred. This can – and is – opening up new types of art and digital collectibles markets.

5.3. Blockchain & Education

Decentralized education brings open-source platforms to the table that cannot be changed. History books will no longer be subject to change. There will be more available access to those without it.

There are many applications and benefits of blockchain-based ledger technologies for education:^{vii}

1. Student records. Academic transcripts are one of the most time-consuming, labor-intensive tasks in academic institutions today. Before issuing a certified transcript of a student's grades, each entry must be manually verified to ensure accuracy. Another kind of student record that is frequently requested is the certification of course contents. If this information were stored on a blockchain, with just a few clicks, a person could obtain a complete, verified record of content courses and all academic achievements.
2. Diplomas and certificates. Just like grades, a student's diplomas and credentials could be issued and stored on a blockchain. Instead of asking the institution emitting the diploma to certify a paper copy, employers would only need to be provided with a link to a digital diploma.
3. Badges. Besides degrees, a person's typical resume contains a lot of additional information that could be relevant to employers. We are talking about foreign language skills, technical knowledge or specific abilities not necessarily related to a person's profession.
4. File storage. If institutions want to store digital curricula, records, degrees, and other information, that is going to use a lot of file storage space. Saving everything on local hard drives brings us back to the issue of centralizing the files. A possible solution would be blockchain-based cloud storage services.
5. Lessons and courses. Many blockchains are also smart-contract capable. That means that lessons and courses can be programmed into the blockchain and executed automatically when certain conditions are met.
6. Publishing. Undergrad and grad students, teachers, professors, and researchers constantly generate quality material. Publishing on a blockchain could help new writers, researchers and many others break into the industry. Blockchains could also help with rights management and protection against piracy.
7. Lower costs. Many of the applications mentioned above mean that many time-consuming, labor-intensive processes would be automated. This leads to lower costs for institutions, which in turn could translate into savings for students, who may not need to spend years paying off loans. Schools and universities could also reduce costs related to file storage space and by cutting out middlemen in many activities.

8. Rewards. The computer nodes that constantly verify the integrity of the information stored on a blockchain receive rewards in the form of digital tokens like bitcoin or ether. This is what is called cryptocurrency mining.

6. AFEN: The Ultimate Combination

Now, imagine the powerful combination of Blockchain with Real Estate, Arts and Education: AFEN.

At AFEN Blockchain Group we believe in the power of strategic networking and collaborations in building sustainable wealth.

Our vision is to become a leading hub for Blockchain related collaborations with focus on Decentralized Finance, Art, and Education.

NFTs have become hugely popular with crypto users and companies alike because of the way they revolutionized the collectibles space. Our pillars are largely based on products that can be tokenized. We look to build a dynamic platform offering all these products and services on an NFT-based platform.

- We would love to expose more and more people to crypto. This will be achieved by awarding newbies to take up courses on areas they are interested in. All our certifications from the crypto education platform will be NFTs (Non-fungible Tokens).
- We want to connect Governments across Africa with opportunities within the blockchain space - such as NFTs - to revolutionize artifacts and collectibles in Africa into NFTs thereby generating revenues for the Government and Private sector.
- We look to award top performers in the crypto space with NFTs in various categories. The idea is to have the community give incentives for those they think are doing a great job in our space.

- Networking has been a major contributor to the growth we have seen in crypto this far. We would love to enhance networking by opening our platform to those who are looking to connect and learn from each other.
- We believe all these activities will create opportunity for growth across board. For that reason, we believe great talent will get opportunity to thrive. We will offer opportunity for incubation for the most promising projects and individuals.
- Lastly, we look to lift the underserved in community by creating a charity platform. We would love to be a channel for those looking to stretch a hand of help. Our channel will, however, be only crypto and NFT based. This we hope, will become the future of charity as the finance space rapidly transforms.

6.1. AFEN & Real Estate

We want to revolutionize the Real estate industry by authenticating home ownership and making peer-to-peer property sales possible on the Blockchain.

This reduces overall cost of acquiring property and is also beneficial for bequeathing land after death.

6.2. AFEN & Arts

We want to create a mainstream art movement that democratizes the creation, ownership, and discovery of indigenous art. Instead of private institutions determining the value of artwork, a community of millions of consumers will, as they can easily own the token representing the art and use it to establish a digital cultural identity.

With our platforms, we will digitize ownership through NFT's on the Binance Smart Chain. These ERC721 standard tokens will represent unique ownership of an asset with the capability of peer-to-peer transaction. Each NFT will go through a process of being specified and minted on chain where they will be kept as an immutable receipt of ownership.

6.3. AFEN & Education

Many industries are now paying close attention to Blockchain technology. Blockchain technology is broadly applicable, highly disruptive and could shape our future as much as AI or the Internet.

We will love to expose more people to crypto and support careers in Blockchain technology. This will be achieved by awarding newbies and startups to take up trainings on areas they are interested in. All our certifications from the crypto education platform will be NFTs.

For this reason, we believe great talent will get opportunity to thrive. We will also offer opportunities for incubation to the most promising blockchain projects and individuals.



7. AFEN Token Utilities



PARTICULARS	DESCRIPTION
Staking	<ul style="list-style-type: none"> Pool of tokens that pay rewards over time based on lockup and interest. Interest will scale based on a “lock-up” period that a user can choose. Instead of using a traditional savings type stake where interest is earned based on the date of deposit, users can stake tokens on a system that works more like a certificate of deposit. If they want to stake 6 months, they earn a percentage of interest, but if they choose to stake for a year, they earn more interest maybe something like a 20% bump from the 6-month stake.

Cash Back on Transactions	<ul style="list-style-type: none"> For transactions using AFEN tokens on our platform and partnering platforms, user can gain a small percentage of tokens back at the end of a tracking period. This will promote the spending of our tokens on different marketplaces.
Art Marketplace Discounted Transaction Fees:	<ul style="list-style-type: none"> Users can choose to pay transactions fees via AFEN token on our marketplace for NFTs. By doing this they can get a percentage discount on the transaction fee. This promotes spending like the cash back program would. They can also pay in other cryptos for the full fee. This will be specific to marketplaces hosted by AFEN.
AFEN Education Payments	<ul style="list-style-type: none"> If we allow educators to upload content to our platform. We will pay them for every course completion that their course holds. This will be a very small fraction of tokens based on the price of our tokens. This will bring higher quality courses to our platform by incentivizing content creators to get viewers. Over time and rise in price of our token we will fractionalize the pay out to scale growth.
AFEN Real Estate Payments	<ul style="list-style-type: none"> Users can choose to purchase property which is listed via AFEN token and get a percentage discount on the transaction fee. Money is escrowed upon sale, and tax paid to the government. Ownership will then be transferred to the buyer upon confirmation of all requirements
Referral Tokens Transaction Fee Share	<ul style="list-style-type: none"> If a user refers another user to our platform.

	<ul style="list-style-type: none"> • They then will get a certain allocation of the transactions fees we earn from any user that they onboarded. • This will bring users onto our platform to earn AFEN tokens.
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8. AFEN Services

AFEN & ART	
Service Infrastructure	<p>The AFEN Art Marketplace will be the premier hub for minting and trading verified African Art Pieces.</p> <p>Our Art listings will come in three forms:</p> <ol style="list-style-type: none"> 1. <u>Government Partnerships</u> Government backed listings will be artifacts and art that is sponsored by the hosting government, certified as a digital collectible of a sponsored item. 2. <u>Individual Artist Listings</u> Our individual listings will be projects that are curated by any artist willing to list Art pieces via the AFEN platform. Those who mint art on our platform can set the terms of royalties made on the secondary market sales. Our market will be open for global customers to buy and relist art pieces purchased on the AFEN platform. 3. <u>Individual African Artist Listings</u> Our individual African listings will be projects that are

	<p>curated by any verified African artists. Anyone on the platform can purchase and resell art listings, but only verified artists of Africa can mint pieces for initial sale</p> <p>We will have an identity verification process for African artists to submit to our team. Once verified they will receive a badge showing their status and will become part of our "African Artists Collective" where users can purchase their minted pieces.</p>
Example	<ul style="list-style-type: none"> • An African artist completes KYC/AML and is listed as a verified artist account. • They then mint their first NFT on the AFEN marketplace and sell it for 500 AFEN tokens. • They pay a 10% transaction fee to the network as well as the gas fee associated with the on-chain transfer. • They have the right to set a royalty charge on resale of the item. • The buyer of this item then decides to re-list the NFT for sale. • They will pay the transaction fee to the network as well as the specified royalty by the seller. • This will continue throughout the lifecycle of the NFT.
AFEN & EDUCATION	
Service Infrastructure	<p>AFEN Education platform will be an open-source platform where users can create course content for the education of others.</p> <p>We will begin by focusing on topics dealing with blockchain and will be sold to good education and streaming Platform.</p> <p>However, content creators will have the opportunity to create content in any range of subjects they find to be useful.</p> <p>Some interesting course topics could be personal finance, mathematics, tutorials on programming, and many other subject matters.</p>

	<p>We will incentivize content creators by paying them a very small fraction of an AFEN token for each course completion. Also if a user completes a course on our platform, they will be awarded with digital certificate and AFEN tokens.</p>
Example	<ul style="list-style-type: none"> • A content creator uploads a course to our platform called “Personal Finance: Building Your Net Worth”. • Our users have access to this course for free. • They will be able to rate the course and will have a minimal amount of buffer adds prior to lessons beginning. • Once they pass the course and complete it. We will give the content owner credit for a completion. <p>If a creator wants to charge for their course because it has premier content. We will partner and allow them to do so.</p> <p>We will have the option of giving our users a certificate of completion NFT that will verify their completion transcript on our education platform.</p>
AFEN & REAL ESTATE	
Service Infrastructure	<p>AFEN real-estate program will allow for the peer-to-peer sale and transfer of home ownership through smart contracts that automate traditional home sales with a broker.</p> <p>By using our platform users will be able to cut the brokerage fee from a typical 10% down to our 1% facilitation fee. On top of this we will create a system for paying taxes partnered with the government for appropriate compliance with government regulations.</p> <p>Our goal is to accomplish a legitimized structure for digital certificates of ownership for real-estate which is recognized by the governing bodies we operate in. This system will bring power to the users and give the ability for eased international investment.</p>

	<p>Smart contract specifically designed to automate the process of selling a real estate.</p> <ol style="list-style-type: none"> Property is listed on a peer-to-peer network. Property is bought by another user. Money is escrowed upon sale. We set standard for how taxes are then delivered to the government. Through this we work through government partnership where they verify real-estate tokens as a certificate of ownership. Confirmation of sale and pre-disposed arguments being met. The ownership is then transferred to the buyer.
Example	<ul style="list-style-type: none"> Steve lists her house for 100 BNB or AFEN and Jim has decided to buy it. He will accept the contract and his payment will be sent to an escrow wallet specified by the contract. Our contract will then automate the process of selling the house by Nigerian regulations and documents will be verified. After this process the ownership will transfer to Jim and the BNB or AFEN will be sent to Steve.

10. About AFEN Team – <https://afengroup.com/#team>

11. References

ⁱ GrandViewResearch, “Real Estate Market Size Worth \$4,263.7 Billion By 2025” from <https://www.grandviewresearch.com/press-release/global-real-estate-market>

ⁱⁱ Statista, “Art market worldwide - statistics & facts” from <https://www.statista.com/topics/1119/art-market/>

ⁱⁱⁱ Holon IQ, “\$10 Trillion Global Education Market in 2030” from <https://www.holoniq.com/2030/10-trillion-global-education-market/>

^{iv} Markets and Markets, “Blockchain Market by Component (Platform and Services), Provider (Application, Middleware, and Infrastructure), Type (Private, Public, and Hybrid), Organization Size, Application Area (BFSI, Government, IT & Telecom), and Region - Global Forecast to 2025” from <https://www.marketsandmarkets.com/Market-Reports/blockchain-technology-market-90100890.html>

^v Investopedia, “How Blockchain Technology is Changing Real Estate” from <https://www.investopedia.com/news/how-blockchain-technology-changing-real-estate/>

^{vi} Julius Baer, “Three ways blockchain is reshaping the art world” from <https://www.juliusbaer.com/es/insights/digital-disruption/three-ways-blockchain-is-reshaping-the-art-world/>

^{vii} Getting Smart, “How Blockchain Could Impact Education in 2020 and Beyond” from <https://www.gettingsmart.com/2020/02/how-blockchain-could-impact-education-in-2020-and-beyond/>