



Review of Online Shopping Design in Nigeria: Challenges and Opportunities

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ABSTRACT

Online Shopping has become a globally significant part of the society, capturing a considerable part of the e-commerce and business world. However, to effectively improve on the provision goods and services online in Nigeria, it is important to have a comprehensive understanding of the term and other existing online platforms in Nigeria. Hence, this review article presents an extensive review of current most popular online shopping platforms in Nigeria. The study is primarily focused on Online shopping platforms in Nigeria, the goods and services provided by those platforms, and some of their limitations. Additionally, general the article outline the challenges and prospects associated with online shopping platforms in Nigeria, providing researchers with avenues for further exploration. The study points to the issue of trust as one of the core problems faced by online shopping platforms in Nigeria. Consequently, the review article proposes a video interaction framework, tools and metrics for measurement that, if followed diligently, can serve as a possible improvement to trust building between vendors and online shoppers.

Keywords

Shopping, online, buyer, E-commerce video communication, interactive, products, design.

1. INTRODUCTION

Online shopping, a facet of e-commerce, involves purchasing products or services through digital platforms on the Internet, where consumers select items, navigate digital checkout processes, and execute electronic transactions for subsequent delivery of chosen goods to physical locations [1]. In the heart of developing countries like Nigeria, a dynamic transformation is unfolding in the realm of online shopping, presenting an emerging and vibrant economic landscape [2]. With a burgeoning population increasingly connected to the digital world, Nigeria is witnessing a remarkable surge in online shopping activity, poised to reshape its retail industry. As technology becomes more accessible and mobile penetration deepens, a growing number of consumers are embracing the convenience and accessibility offered by online shopping platforms. This shift not only empowers businesses to reach a broader audience but also empowers consumers with an array of products and services at their fingertips. The fusion of innovative payment solutions, improved logistics networks, and a burgeoning entrepreneurial spirit further fuels this evolution, painting a promising picture of Nigeria. The way online shopping has taken off in countries like Nigeria is closely tied to the incredible growth of technology in the digital age [2]. And you can't forget the role that Covid-19 played – it pushed countries, including Nigeria, to find new ways of doing business and taking care of their customers. It's like we had to rethink everything overnight. This forced us to get creative and come up with different ways to connect with customers and

meet their needs. So, now you see this whole new approach to business, where we're using the latest tech, paying attention to what customers want, and finding smart ways to get products to them. It's been a real journey of adapting and growing so far. Before we dive in any further, let's take a trip back to the roots of online shopping. Imagine Mr. Michael Aldrich, a forward-thinking English entrepreneur, coming up with the concept way back in 1979 – almost four decades ago [3]. Back then, it was like the very beginning, just testing the waters. By 1980, Aldrich gave it a real push with something called the Redifon's Office Revolution [3]. This was like the starting point of connecting customers, agents, suppliers – all these different players – through the internet, letting them do business transactions in real time. And in that same year, he made things even better by using Videotex technology [3]. But the big leap happened in 1990 when Tim Berners-Lee introduced the first-ever worldwide web server and browser. Just a year later, in 1991, it was ready for regular folks to use for buying and selling stuff online. From there, the floodgates of innovation opened. Online banking, NetMarket, and the Internet Shopping Network all kicked off in 1994. NetMarket can be remembered as the first time people felt secure making a purchase online. Amazon.com took the reins in 1995, giving everyone a taste of what online shopping could be. And then came the big players like eBay in 2003 and Alibaba's Taobao and Tmall in 2008, turning the online shopping world into what we know today [3].

In Nigeria the journey of online shopping started gaining its roots from the time when the Global System for Mobile-communication gained access to the country, lots of surveys and predictions were carried out concerning online shopping in Nigeria. The population of the country as well as the behavior of citizens towards technological advancement was some of the main reasons why researchers had these positive suggestions and predictions about the country. Chinedu [3] specifically pointed to the banning of PayPal from Nigeria and the survey carried out by MasterCard played a part in pulling lots of investors into investing in the online shopping ecosystem in Nigeria. After investors got hold of these findings and predictions, online shopping started properly in Nigeria when Fouani Nigeria Limited (Ltd) got involved in the distribution of electronic products [3]. After that other online shopping platforms followed, the 20 most popular and genuine online shopping platforms in Nigeria are shown in Table 1 below:

Table 1 shows the most reliable and commonly used online shopping systems in Nigeria. As seen in the table, most of the companies came into existence after the introduction of GSM and other reliable network providers in Nigeria. Also, as seen in Table 1, most of the companies in Nigeria strive to provide an enhancement to their competitors by looking into the services or products provided by the existing companies. Jumia, Konga, and DealDey hold the position as the popular and pioneer online shopping marketplace in Nigeria this is as



according to Chinedu's [3] research. The research also points to how the business of selling goods and services over the Internet has continued to grow, indicating that it has experienced a 25.8% growth over time.

While online shopping has brought about benefits for both platform users and businesses, expanding accessibility and meeting customer needs within the comfort of their homes, workplaces, or leisure spots, ongoing research on online shopping trends in Nigeria, as highlighted by Nwankwo [4], has honed in on specific areas. These include understanding the factors shaping consumers' perspectives and decisions when it comes to online purchases. It also explores how past online shopping experiences can influence people's attitudes toward internet shopping. Moreover, it delves into the personal shopping preferences that drive online activities and the selection of Internet stores that best cater to individual needs. Additionally, it investigates the impact of well-coordinated online marketing, effective communication, and timely deliveries on how often consumers visit online stores and how engaged they are [4]. However, despite the obvious benefits of online shopping, customers often rely more on the information they find online than on what sellers or platform owners advertise [5]. This is mainly due to trust issues that some customers have developed for various reasons. They may be hesitant to trust reviews from other users, even though these reviews are often displayed on the platforms for everyone to see. This challenge continues to be a concern for companies, as they seek new ways to enhance trust between online shoppers and their platforms. Alongside the trust issue, there are other challenges such as concerns about product quality, security, and the overall online shopping experience [6]. Sometimes, the cost of online purchases can exceed that of traditional markets where customers have the opportunity to negotiate. The cost is sometimes inflated due to delivery charges, government policies like taxes that affect online purchases, the timeliness of deliveries, and whether products match their online representations [3].

Online shopping holds immense importance in Nigeria as it deeply resonates with human needs and behaviors. The convenience it offers aligns perfectly with the fast-paced lifestyles of Nigerians, providing the freedom to shop from the comfort of homes or workplaces, which is especially vital in urban areas burdened with traffic congestion. This translates into real-time saved for meaningful experiences. Moreover, online shopping brings the world's marketplace to the fingertips of Nigerians, allowing them to explore diverse products, including international brands that might not be accessible otherwise [7]. This abundance of choice respects individual preferences and empowers decision-making. For businesses, particularly local artisans and SMEs, online shopping opens doors to a broader audience, leveling the playing field and fostering economic growth by creating jobs. Notably, online shopping is more than transactions; it's a catalyst for Nigeria's digital transformation [8]. It encourages the adoption of digital payments, propels technological advancements, and fosters a digitally literate society. This human-centered approach strengthens communities and drives Nigeria's global digital presence. Additionally, the treasure trove of data generated by online shopping enhances businesses' understanding of human

behavior, paving the way for tailored experiences. It's a bridge that connects urban and rural Nigeria, overcoming geographical barriers and democratizing access to products and opportunities. In essence, online shopping in Nigeria is about meeting human needs, fostering economic prosperity, and embracing digital evolution in ways that resonate deeply with the nation's vibrant and diverse populace.

Despite the evident importance of online shopping, it does come with its own set of interconnected challenges, some of which have been previously discussed. As a result, the ongoing research initiative aims to shed light on these challenges and propose practical solutions to address these aforementioned concerns. In this context, the primary contributions of this scholarly investigation encompass the following:

- i. A comprehensive examination of the extent of online shopping's prevalence in Nigeria.
- ii. An in-depth exploration of the latest advancements in online shopping systems.
- iii. The unveiling of both the obstacles and potential opportunities inherent in online shopping systems within Nigeria.
- iv. Offering potential computer-based methodologies to tackle the central issues faced by online shopping systems.
- v. Furnishing researchers with pertinent insights into the realm of online shopping systems in the Nigerian context.

2. PRESENT STATUS OF ONLINE SHOPPING IN NIGERIA

With the growing influence of globalization, industrialization, e-commerce and all other developing factors around the world. Many organizations and firms are faced with continues need to advance in the medium through which the meet their customers and those who patronize them. By so doing they are constantly under the pressure coming up with good business models, investing in innovative strategies to make sure they obtain maximum popularity.

In Nigeria, the journey of online shopping is traced back to the introduction of internet and GSM into the country with Fuonani Nigeria Ltd spearheading the drive for online shopping in Nigeria which the company used to meet online customers with their electronic products [3]. Since after the introduction of the Mobile Technology System in 2001 and the GSM, the online shopping ecosystem has continue to with witness gradual growth in the industry. As recorded by Chinedu [3], a statistical analysis on www.jacobian.com shows visible growth although this was based on the only available official population of the Nigeria which was about 181 million. Though there's a believe that the country population is above that now, the result from the statistical analysis is still relevant to show that since the inception of online shopping in Nigeria the medium has continued to gain advancement and improvement both in the number of firms and customers interactions.

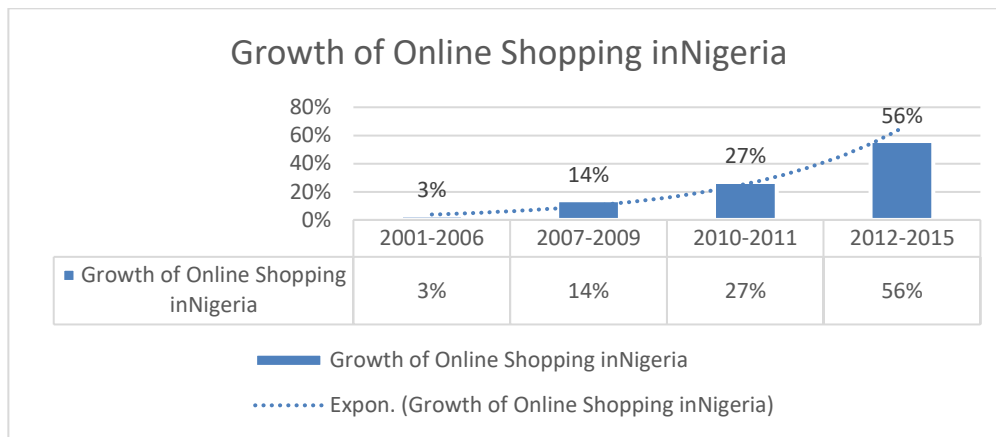


Fig. 1 shows the growth rate of online shopping from 2001 - 2015

The result shows that in 2001 to 2006 the growth of online shopping in Nigeria saw a very little amount of growth due to its new emergence, 2007 to 2009 was even better with 14% growth, from the following year which was 2010 to 2011 being just a single year, there was 27% growth rate but from 2012 to 2015 saw the highest percentage of growth of about 56%.

During this process of growth, the customers have continued to be the main focus of online shopping platforms with the hope to continue to build trust between them and the vendors [9]. Building the trust between this two parties is one of the core aspects that technological advancements in online shopping have continued to find possible ways at which to build using various computer knowledge possible. According to the research carried out by George et al. [9] point to the issue that there's always a perceived risk by customers when purchasing from an online shopping platform.

With Nigeria being the fastest growing telecommunication hub in Africa, online shopping has continue to witness the continuous growth in the number of online shopping platforms, recording at least 500 orders worth a billion monthly [10]. This

advancement has come with lots of platforms trying to enter into the ecosystem of providing customers with different products, services and even good prices as well as products that ordinarily would require those visiting foreign online platforms to get them. This efforts are made to make sure they provide a better customer relationship and trust than the existing online shopping platforms. There are many online shopping platforms in Nigeria [3] but this research will focus on the top 20 most popular in Nigeria, point to the services and products to provide on the platform.

Table 1 shows the major players in the business of providing goods and services for customers online. The selection was based on their popularity, reliability, and how often this platforms are turned to for goods and service. The table provides relevant information about each platform such as how the different platforms can be accessed (website) when they came into business and the focus of their good and services they provide to the online customers.

Table 1 shows the online shopping companies, the year created, the website, and their focus

Company	Year Created	Website	Focus
Jumia	2012	Jumia.com.ng	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Travel and Luggage, and Home Improvement.
Konga	2012	Konga.com	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Travel and Luggage, Home Improvement.
Slot	1998	Slot.ng	Mobile Phones and Smartphones, Laptops and Computers, Tablets, Accessories (phone cases, chargers, etc.), Audio and Headphones, Cameras and Photography Equipment, Gaming Consoles and Accessories, Home Appliances (refrigerators, washing machines, etc.), TVs and Home Entertainment,



			Wearable Technology, Printers and Scanners, Networking and Connectivity, Office Electronics (printers, projectors, etc.), Gadgets and Gizmos
OLX	2012	OLX.com.ng	Used or secondhand electronics, such as phones, laptops, and TVs. Vehicles like cars, motorcycles, and trucks. Real estate properties for rent or sale, including apartments and houses. Furniture and home decor items. Fashion items such as clothing, shoes, and accessories. Home appliances and gadgets. Collectibles and antiques. Books, magazines, and educational materials. Sports equipment and hobby-related items. Pets and pet-related supplies. Baby and children's items like toys and clothing. Tools and equipment for various purposes. Services offered by individuals or businesses.
Coliseum	2009	Coliseum.com	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games.
Taafoo	2009	Taafoo.com	Fashion for men, women, and kids, Electronics, Home Appliances, Beauty and Personal Care products, Books, Accessories, and more.
DealDey	2011	DealDey.com	Electronics and Gadgets, Fashion and Accessories, Home and Living, Beauty and Personal Care, Health and Wellness, Groceries and Food, Travel and Accommodation, Entertainment and Events. Spa and Beauty Services, Travel Packages, Fitness Classes, Wellness Services, Event Tickets, and Entertainment Experiences.
Kaymu	2013	Kaymu.com	Electronics, Fashion, Beauty and Personal Care, Home, and Living, Appliances, Books, Movies, and Music. Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, and Home Improvement.
Parktelonline	2012	Parktelonline.com	Mobile Phones and Smartphones, Phone Accessories, Tablets, Electronics, Gadgets and Tech Accessories.
Jiji	2014	Jiji.com.ng	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Home Improvement, Job Listings, Real Estate.
Yudala	2016	Yudala.com.ng	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Home Improvement.
Supermart	2014	Supermart.ng	Groceries, Household Essentials, Personal Care, Baby and Child Care, Beverages, Frozen Foods, Bakery, Bread, Health and Wellness.



Kara	2013	Kara.com.ng	Electronics, Appliances, Home and Living, Computers and Accessories, Mobile Accessories, Health and Wellness, Beauty and Personal Care, Audio and Headphones, Cameras and Photography Equipment, Home Theater Systems, Automotive Electronics.
Gidimall	2012	Gidimall.com	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Home Improvement.
Gloo	2012	Gloo.com	Groceries, Household Essentials, Beverages, Frozen Foods, Health and Wellness, Baby and Child Care.
Fouani	2001	Fouani.com	Electronics, Home Appliances, Kitchen Appliances, Personal Care Appliances, and Mobile Devices.
Regalbuyer	2014	Regalbuyer.com	Electronics, cameras, phones, laptops, wine, and spirits.
Ojashop	2014	Ojashop.com	Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial, Groceries, Health and Wellness, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Home Improvement.
Adiba	2013	Adiba.com	Cognac, Champagne, Whiskey, Beer, Wine, Mixers & Soft Drinks, Spirits.
Buyam	2013	Buyam.com.ng	electronics & Health to fashion, household items, groceries, Livestock, automobile, Schools, and more

In Nigeria, there's a range of online shopping platforms, each with its own unique features. If you take a look at Table 1, you'll find all sorts of details about these platforms. But for further understanding about how they've grown, just turn your attention to the histogram in Fig. 1 and keep reading for a deeper dive into the most popular ones.

Jumia: This Company kicked off back in 2012, introducing Jumia.com.ng to the world. It's an online place where you can find all sorts of stuff like electronics, fashion, beauty products, home items, appliances, books, movies, music, things for babies and kids, sports gear, car stuff, groceries, health items, computers and accessories, school supplies, jewelry, and toys and games. They've got quite the selection [11]. Jumia's journey has been pretty impressive. Over time, they've expanded and come up with new ideas to keep up with the changing world of online shopping. They've used fancy technology and smart strategies to keep up with the huge demand for online buying. They're all about making the customer experience better, and that's why they've become such a big deal in the world of online shopping. From the time they started out to where they are now, Jumia has gone through a lot of changes. They've grown from a small startup to a place where you can find almost anything online. What's cool is that they're good at changing with the times and catching onto new trends. People like shopping on Jumia because it's easy and smooth [12], [13]. So, when you look at the big picture, Jumia is a great example of how a small idea in 2012 turned into a major online shopping destination today.

Konga: Back in 2012, Konga made a significant entrance onto the scene when it introduced Konga.com, an online marketplace that played a pivotal role in shaping the landscape of e-commerce. This marked the start of a journey that led Konga to transform into a dominant force in digital commerce [14]. As the field of e-commerce progressed, propelled by technological advancements, Konga proactively adjusted its approach to capitalize on these changes. It harnessed innovations to improve user experience and streamline its operations. The company's dedication to remaining at the forefront of technological progress was a key factor in its ascent as a major player in the realm of online retail.

Konga's history is characterized by a consistent pattern of growth and adaptation. Initially spanning a wide array of product categories such as Electronics, Fashion, Beauty and Personal Care, and more, the platform responded to the changing preferences of consumers. This commitment to versatility, in conjunction with its embrace of emerging technologies, enabled Konga to establish itself as a notable contender in the competitive arena of e-commerce [14]. In essence, the trajectory of Konga from its inception in 2012 to its present standing in the market vividly showcases its transformation into a technologically sophisticated e-commerce platform. Through a skillful blend of strategic business maneuvers and an unwavering emphasis on technological advancement, Konga has cemented its status as a frontrunner in the realm of online retail.

Slot: Starting in 1998, Slot embarked on a transformative journey that eventually gave rise to Slot.ng, its forward-



thinking online platform. This marked the beginning of a narrative that intertwined history with technological advancement in the realm of digital commerce. As the e-commerce landscape evolved over time, Slot made a conscious effort to stay ahead in terms of technology. It consistently integrated cutting-edge innovations into its online platform, strategically aligning itself with emerging technologies. This deliberate collaboration with new tech allowed Slot.ng to offer customers an elevated shopping experience, characterized by smooth navigation, secure transactions, and responsive customer service.

Slot's historical trajectory tells the story of its evolution from a traditional retail entity to a tech-savvy online marketplace. With foundational offerings like Mobile Phones and Smartphones, Laptops and Computers, Tablets, and an extensive range of Accessories, the platform expanded its scope to include more advanced categories such as Wearable Technology, Networking and Connectivity solutions, and Home Appliances. This expansion was deeply rooted in Slot's steadfast commitment to leveraging technology for the betterment of its customer base. Slot's journey from its inception to the present day emphasizes its intentional fusion of historical legacy and technological progress. This harmonious blend has positioned Slot.ng as a beacon of innovation in the digital commerce arena, skillfully catering to the diverse needs of tech-savvy consumers. It serves as a living testament to the dynamic interplay between historical roots and the relentless march of technological advancement.

OnLine eXchange (OLX): In 2012, OLX made a remarkable entry into the Nigerian market, a pivotal moment for the growing e-commerce sector in the country. This step brought about a significant shift in how buying and selling transactions took place, altering the landscape of commerce. Through a unique platform offering free classified ads covering a wide range of products and services, OLX opened up a new way for individuals to engage in trade. This move had an immediate and far-reaching impact, quickly positioning OLX as an accessible and user-friendly bridge connecting sellers and buyers across Nigeria. This newfound convenience streamlined connections, enabling effortless item exchanges and cultivating a vibrant interconnected marketplace.

Recognizing the distinct needs of the Nigerian market, OLX strategically advanced its online app's technology. Given the prevalence of smartphones in the region, the platform embraced mobile technology, enhancing user engagement on the go, a crucial aspect of modern e-commerce. A standout improvement was the integration of geolocation services within the OLX app. This innovative feature enabled users to discover listings close to their current location, adding a layer of convenience. Furthermore, the integration of instant messaging capabilities within the app transformed communication between buyers and sellers, expediting negotiations and elevating the overall user experience. Emphasizing trust in online transactions, OLX also incorporated secure payment options, addressing financial concerns and fostering a conducive e-commerce environment in Nigeria.

In its early stages, OLX covered an array of categories, spanning Electronics, Fashion, Vehicles, Real Estate, Services, and more. However, the platform's distinct focus on facilitating the sale of second-hand goods became prominent, aligning well with the market's demand for cost-effective alternatives and sustainability. Over time, OLX refined its strategy in Nigeria, placing greater emphasis on specific categories that resonated strongly with the local population. This shift led to a concentrated focus on categories such as Vehicles, Real Estate,

and Jobs – areas closely tied to the core aspirations of the Nigerian people. From its groundbreaking debut in 2012 to its responsive technological upgrades and evolving category focus, OLX has etched a lasting impact on Nigeria's e-commerce landscape. By embracing technology, addressing market demands, and catering to local priorities, OLX stands as a driving force in Nigeria's digital commerce evolution.

Coliseum: Established in the year 2009, Coliseum has firmly established itself as a prominent participant within the online retail landscape of Nigeria, all thanks to its dedicated platform, Coliseum.com. Over the span of its existence, Coliseum has embarked on a journey of diversification, expanding its array of products to encompass a wide spectrum of categories. These encompass Electronics, Fashion, Beauty and Personal Care, Home and Living, Appliances, Books, Movies, and Music, Baby and Kids, Sports and Fitness, Automotive and Industrial items, Groceries, Health and Wellness products, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, and an assorted collection of Toys and Games. More than just offering a varied selection, Coliseum has also exhibited a steadfast commitment to embracing technological advancements. This commitment is notably evident in their online application, which has evolved in tandem with the mobile era. This evolution has resulted in the incorporation of cutting-edge features such as geolocation services and seamless instant messaging. By incorporating these features, Coliseum has successfully elevated the user experience and convenience factors within the ever-evolving domain of digital retail. This steadfast dedication to technological innovation serves as a true testament to Coliseum's journey through the digital retail landscape.

Taafoo: In the year 2009, Taafoo came into existence and swiftly established itself as a significant presence within the realm of online retail. Its digital platform, Taafoo.com, has provided a diverse array of products to its customers. This assortment includes offerings such as Fashion items tailored for men, women, and children, a range of Electronics, Home Appliances, Beauty and Personal Care essentials, Books, Accessories, and much more. Throughout its journey, Taafoo has consistently showcased a strong dedication to staying at the forefront of technological progress. This dedication is aptly demonstrated through their online application. This application has not only evolved over time but has seamlessly adapted to the mobile revolution. Notable features include personalized geolocation services, which enhance the shopping experience by tailoring options based on individual locations, and efficient instant messaging capabilities, which cater to the preferences of contemporary shoppers. By incorporating these advancements, Taafoo has effectively aligned its digital offerings with the demands and expectations of modern customers, elevating the overall quality of the digital retail experience they provide.

DealDey: In 2011, something significant happened in Nigeria's online shopping story with the launch of DealDey.com. This website brought a fresh perspective to e-commerce, offering a wide range of products that cover everything from electronics, fashion, home goods, beauty products, health items, groceries, and even travel arrangements. What's unique is that DealDey.com goes beyond just shopping, providing opportunities for entertainment, events, spa services, travel deals, fitness classes, wellness services, and event tickets. Behind the scenes, DealDey's journey has been one of innovation and adaptability. It introduced a cutting-edge mobile app that changed the game. This app was designed to



work seamlessly on smartphones, making it easy for users to explore the extensive product collection. The app also stands out for its smart use of location technology, suggesting products and services based on where users are. Another highlight is the integrated instant messaging feature that connects customers and sellers, fostering smooth communication.

Combining DealDey's milestones and technological expertise, it's clear that this platform is a pioneer that understands the diverse needs of modern shoppers. This blend of innovation and industry not only enhances what DealDey offers but also positions it as a key player in shaping Nigeria's online shopping landscape. It's a unique space that resonates with what consumers want and aspire to have.

Kaymu: Back in 2013, the launch of Kaymu.com brought about a significant change in how Nigeria approached online shopping. This platform offered a wide range of products under one roof, covering everything from electronics, fashion, beauty, home items, appliances, books, movies, and more. It was like a one-stop shop for all your needs, including baby and kids' items, sports gear, automotive supplies, groceries, wellness products, computers, office supplies, jewelry, toys, games, and even home improvement items.

The story of Kaymu is one of adapting and evolving, closely tied to the progress of technology. A pivotal moment was when they introduced an advanced online app that changed the game in how the platform interacted with its users. This app put Kaymu at the forefront of mobile-centered shopping, giving users an interface that matched their modern preferences seamlessly. One impressive feature was the integration of geolocation, allowing users to get personalized recommendations based on where they were located. The app also made communication easier with instant messaging, connecting customers and sellers effortlessly.

By bringing together their history and technological expertise, Kaymu emerged as a strong leader in the online shopping scene, aligning well with the complex demands of today's consumers. This fusion showcased their adaptability and innovation, playing a crucial role in shaping how Nigeria approached e-commerce. The interplay between their past and technology showcased a powerful force that transformed how consumers engage with products, reshaping the digital retail landscape of the nation.

ParktelOnline: Founded in 2012, Parktelonline.com left a significant impact on Nigeria's tech scene as a dynamic hub for digital mobility solutions. With a strong focus on telecommunications, the platform offers a wide range of product categories including Mobile Phones, Smartphones, Phone Accessories, Tablets, Electronics, and various Gadgets and Tech Accessories.

Taking a closer look at the journey of Parktelonline, we can see a path intertwined with technological excellence. A key milestone in its history was the strategic launch of an advanced online application, which brought about a major shift in the digital mobility commerce landscape. This app, representing technological innovation, showcases Parktelonline's dedication to keeping up with modern consumer trends. Designed to seamlessly fit into the mobile-centric world, the app provides users with an easy way to explore a wide array of products. Notably, the app includes precise geolocation features that offer users localized recommendations based on their specific contexts. Going beyond just functionality, the app also enhances user interactions through integrated instant

messaging, making communication between consumers and merchants smoother.

With a blend of historical achievements and technological expertise, Parktelonline stands out as a leading pioneer that brings together telecommunications and digital innovation. This blend transcends boundaries and places Parktelonline at the forefront of Nigeria's e-commerce landscape. The fusion of history and technology highlights its role in reshaping the dynamics of digital mobility commerce, aligning with current consumer preferences and the intricacies of technological progress.

Jiji: Established in 2014, Jiji.com.ng emerged as a game-changing presence in Nigeria's rapidly growing digital commerce scene. This platform serves as an all-encompassing channel, covering a wide range of product categories, including Electronics, Fashion, Beauty and Personal Care, Home and Living essentials, Appliances, Books, Movies, Music, Baby and Kids necessities, Sports and Fitness gear, Automotive and Industrial solutions, Groceries, Health and Wellness items, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, Home Improvement tools, and even extends its reach to include Job Listings and Real Estate.

The story of Jiji's evolution is closely tied to technological innovation. A key part of this journey is the strategic launch of an advanced online application, which played a pivotal role in reshaping how consumers interact in the digital commerce realm. This application underscores Jiji's commitment to staying in tune with modern consumer trends. Designed to seamlessly align with mobile-focused preferences, the app acts as a gateway for users to explore a vast array of products. Notably, the app leverages precise geo-location, providing users with tailored recommendations based on their immediate geographic context. Beyond these enhancements, the app's design also facilitates interactions through integrated instant messaging, bridging the gap between consumers and merchants.

Blending historical milestones with technological finesse, Jiji takes on a prominent role, redefining the landscape of e-commerce in Nigeria. This synchronization highlights its role as a pioneering catalyst that goes beyond mere transactions. The interplay between history and technology underscores Jiji's significant role in shaping Nigeria's digital commerce narrative. Through a blend of innovation and adaptability, Jiji has cleverly positioned itself as an agent that shapes the way consumers engage and paves the path for technological advancement.

Yudala: Established back in 2016, Yudala.com.ng has firmly established itself as a dynamic force in Nigeria's digital commerce scene. The company's success can be attributed to its broad array of product categories, which cover Electronics, Fashion, Beauty and Personal Care, Home and Living essentials, Appliances, Books, Movies, Music, Baby and Kids essentials, Sports and Fitness gear, Automotive and Industrial solutions, Groceries, Health and Wellness items, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, and Home Improvement tools. Yudala's growth story is closely intertwined with technological advancements that have significantly improved its customer interactions.

One notable milestone in its journey is the strategic launch of an advanced online application, which has revolutionized how people engage with digital commerce. This app symbolizes Yudala's dedication to staying in sync with modern consumer



preferences. Designed to seamlessly align with the mobile-focused landscape, the app offers users an avenue to explore a wide range of products. Notably, the app stands out due to its smart geo-location features, enabling users to receive tailored recommendations based on their immediate vicinity. Moreover, the app fosters stronger user engagement by integrating instant messaging functionalities, creating a dynamic channel for communication between consumers and merchants.

When tracing the historical progression and technological innovations, Yudala emerges as a key player reshaping Nigeria's digital commerce landscape. This fusion underscores the company's role as a pioneering force that goes beyond mere transactions. By merging history and technology, Yudala assumes a crucial position in driving the evolution of consumer engagement and technological advancement in Nigeria's digital commerce narrative.

Supermart: Founded in 2014, Supermart.ng swiftly rose to prominence as a transformative force in Nigeria's digital commerce scene, with a laser focus on providing essential consumer goods. The platform offers a diverse array of product categories, ranging from Groceries and Household Essentials to Personal Care items, Baby and Child Care products, Beverages, Frozen Foods, Bakery selections, Bread, and Health and Wellness offerings.

Supermart.ng's journey of evolution is deeply intertwined with its strategic embrace of technology. At its core lies an advanced online application that has fundamentally reshaped how consumers engage with digital commerce. This application serves as a testament to Supermart.ng's dedication to staying in tune with modern consumer preferences. Designed to seamlessly align with the mobile-centric lifestyle, the application immerses users in an environment where accessing essential products is intuitive and effortless.

One standout feature of this technological leap is the meticulous incorporation of geolocation precision. This feature empowers users with localized recommendations tailored to their immediate geographical location. Going beyond this, the application's framework enhances interactions through integrated instant messaging, fostering seamless communication channels between consumers and merchants.

In the grand symphony of historical progression and technological prowess, Supermart.ng emerges as a pioneer of practicality, reshaping Nigeria's digital commerce landscape. This harmonious blend underscores its role as a cutting-edge facilitator, surpassing the confines of mere transactions. The interplay between its history and technology positions Supermart.ng as a pivotal catalyst, driving the dynamics of consumer engagement and technological sophistication within Nigeria's digital commerce narrative.

Kara: Taking root in 2013, Kara.com.ng has risen to prominence as a central player in Nigeria's digital commerce realm, offering a diverse array of product categories with a pronounced focus on Electronics, Appliances, Home and Living essentials, Computers and Accessories, Mobile Accessories, Health and Wellness products, Beauty and Personal Care items, Audio and Headphones, Cameras and Photography Equipment, Home Theater Systems, and Automotive Electronics. The evolution of Kara.com.ng is characterized by its adept technological progress, a trajectory that underscores the platform's commitment to redefining consumer engagements.

A crucial aspect of this journey involves seamlessly integrating a sophisticated online application, which has brought about transformative shifts in the digital commerce landscape. This

application serves as a testament to Kara.com.ng's alignment with contemporary consumer preferences. Tailored to seamlessly interact with mobile-centric dynamics, the app functions as a gateway for users to explore the comprehensive spectrum of products available. A notable feature of this technological stride is the precision with which geolocation services are seamlessly woven in, allowing users to receive personalized recommendations based on their immediate geographical context. Moreover, the application's architecture facilitates enriched interactions through the integration of instant messaging capabilities, fostering smooth exchanges between consumers and merchants.

The harmonious blend of historical progression and technological prowess positions Kara.com.ng as a harbinger of innovation, reshaping Nigeria's digital commerce narrative. This fusion serves as a symbol of adaptability and forward-thinking. The confluence of history and technology places Kara.com.ng as a pivotal catalyst, invigorating the dynamics of consumer engagement and technological finesse within the panorama of Nigeria's digital commerce trajectory.

Gidimall: Established in 2012, Gidimall.com has risen to prominence within Nigeria's rapidly expanding digital commerce sector. The platform boasts a diverse array of product categories, spanning Electronics, Fashion, Beauty and Personal Care, Home and Living essentials, Appliances, Books, Movies, and Music, Baby and Kids merchandise, Sports and Fitness equipment, Automotive and Industrial solutions, Groceries, Health and Wellness products, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, Toys and Games, as well as offerings in Home Improvement. The evolution of Gidimall.com follows a multifaceted path, intricately weaving together its historical journey with its technological prowess. Central to this evolution is the strategic introduction of a sophisticated online application, which has significantly transformed the digital commerce landscape. This application stands as a testament to Gidimall.com's alignment with contemporary consumer preferences. Designed to seamlessly synchronize with mobile-centric behaviors, the application provides users with an intuitive gateway to explore the vast range of products.

A unique feature of this technological advancement is the seamless integration of geolocation precision, offering users localized recommendations tailored to their immediate geographic context. Enhancing the user experience further, the application incorporates an instant messaging framework that bridges the gap between consumers and merchants, facilitating efficient communication.

By fusing historical development with technological expertise, Gidimall.com emerges as a true innovator, reshaping Nigeria's digital commerce narrative. This synergy underscores its adaptability and forward-thinking approach, positioning it as a driving force for transformation. The harmonization of history and technology positions Gidimall.com as a pivotal influencer, propelling the evolution of consumer engagement and technological finesse within Nigeria's digital commerce trajectory.

Gloo: Established in 2012, Gloo.com has become a notable player in Nigeria's bustling digital shopping scene. They've chosen to focus on a carefully curated selection of products like Groceries, Household Essentials, Beverages, Frozen Foods, Health and Wellness items, as well as Baby and Child Care products.

The story of Gloo.com's growth is closely connected to both its history and its technological know-how. A significant part of



their journey involves the clever use of a fancy online app, which has really shaken things up in the world of digital shopping. This app shows that Gloo.com is in tune with what today's shoppers want, making sure it's easy to use on mobile devices. It's a place where users can explore a wide range of products. One cool thing about this tech upgrade is how it knows exactly where you are, giving you suggestions based on your location. And to make things even better, the app lets customers and sellers chat in real-time, making communication super smooth.

When you consider the mix of history and tech smarts, Gloo.com stands out as a true trailblazer, changing the way people in Nigeria do their digital shopping. This mix shows that they're more than just a place to buy things – they're also adapting to make shopping an experience. By blending history and technology, Gloo.com is making a big impact, driving how people engage with shopping and how technology evolves in Nigeria's digital shopping world.

Fouani: Founded in 2001, Fouani.com has played a significant role in shaping Nigeria's digital commerce landscape. The company specializes in a range of product categories including Electronics, Home Appliances, Kitchen Appliances, Personal Care Appliances, and Mobile Devices. The history of Fouani.com is closely intertwined with its technological progress. A crucial turning point in its journey was the strategic launch of an advanced online application, which brought about transformative changes in the digital commerce domain. This application reflects Fouani.com's alignment with contemporary consumer preferences, seamlessly embracing mobile-centric interactions. Serving as an intuitive gateway, the app enables users to explore a curated array of products. A noteworthy feature of this technological leap is the incorporation of precise geolocation, offering users localized recommendations based on their geographical location. Elevating user engagement, the app incorporates instant messaging, facilitating seamless communication between buyers and sellers.

Through the fusion of historical development and technological sophistication, Fouani.com emerges as a trailblazer of innovation, reshaping the narrative of digital commerce in Nigeria. This convergence underscores its role as a flexible catalyst, transcending mere transactional frameworks. The interplay between history and technology positions Fouani.com as a pivotal driving force, propelling the evolution of consumer interactions and technological advancements within Nigeria's digital commerce landscape.

Regalbuyer: Founded in 2014, Regalbuyer.com has left a notable impact on Nigeria's continuously evolving digital commerce landscape. The platform specializes in a thoughtfully curated range of product categories, encompassing Electronics, cameras, phones, laptops, as well as wine and spirits.

Regalbuyer.com's history seamlessly intertwines with its journey of technological advancement. A pivotal moment in its story was the strategic introduction of a sophisticated online application, marking a significant step forward in the digital commerce landscape. This application showcases Regalbuyer.com's alignment with contemporary consumer preferences, smoothly embracing the mobile-centric approach. Operating as an intuitive gateway, the app empowers users to explore the diverse product offerings. Notably, a key element of this technological progression is the seamless integration of geolocation precision, presenting users with personalized recommendations tailored to their specific location. Elevating user interaction, the application seamlessly incorporates instant

messaging, facilitating smooth communication between customers and merchants.

The blend of historical development and technological excellence positions Regalbuyer.com as a catalyst for innovation, reshaping the narrative of Nigeria's digital commerce scene. This interplay underscores its role as a flexible enabler, transcending the boundaries of mere transactions. The synergy between history and technology establishes Regalbuyer.com as an influential driving force, propelling the dynamics of consumer engagement and technological refinement within Nigeria's digital commerce journey.

Ojashop: Established in 2014, Ojashop.com has left an enduring mark on Nigeria's dynamic digital commerce landscape, showcasing an expansive array of product categories that span Electronics, Fashion, Beauty and Personal Care, Home and Living essentials, Appliances, Books, Movies, and Music, Baby and Kids merchandise, Sports and Fitness equipment, Automotive and Industrial solutions, Groceries, Health and Wellness products, Computers and Accessories, Office and School Supplies, Jewelry and Accessories, as well as Toys and Games, along with offerings in Home Improvement.

The historical journey of Ojashop.com seamlessly aligns with its path of technological advancement. A pivotal moment in its narrative emerged with the strategic introduction of an advanced online application, illustrating transformative progress within the digital commerce realm. This application serves as evidence of Ojashop.com's resonance with contemporary consumer preferences, effectively embracing the mobile-centric ethos of today. Functioning as an intuitive gateway, the application empowers users to navigate through the extensive range of products available. A remarkable aspect of this technological leap is the seamless integration of geolocation precision, enabling users to access personalized recommendations tailored to their immediate geographic location. Further enriching consumer interaction, the application incorporates an instant messaging framework, facilitating smooth communication between users and merchants.

The fusion of historical heritage and technological prowess establishes Ojashop.com as a driving force of innovation, fundamentally reshaping the narrative of digital commerce in Nigeria. This interplay underscores its role as a dynamic catalyst, surpassing mere transactional boundaries. The harmony between history and technology positions Ojashop.com as a central influence, propelling the dynamics of consumer engagement and technological advancement within the trajectory of Nigeria's digital commerce landscape.

Adiba: Adiba.com has strategically positioned itself as a significant presence in the evolving digital commerce scene of Nigeria, specializing in a diverse range of product categories including Cognac, Champagne, Whiskey, Beer, Wine, Mixers & Soft Drinks, as well as Spirits.

Founded in 2013, Adiba.com's history seamlessly intertwines with its journey of technological progress. A crucial turning point in its story was the deliberate introduction of a sophisticated online application, symbolizing transformative shifts within the digital commerce realm. This application underscores Adiba.com's alignment with contemporary consumer preferences, adeptly embracing the mobile-centric approach. Functioning as an intuitive gateway, the application empowers users to explore the intricacies of alcoholic beverage offerings. Notably, a distinctive aspect of this technological



advancement is the seamless incorporation of geolocation precision, enabling users to access personalized recommendations based on their immediate geographical context. Complementing this, the application integrates an instant messaging framework, facilitating streamlined communication between consumers and vendors.

The fusion of historical development and technological finesse positions Adiba.com as a catalyst for innovation, reshaping the narrative of Nigeria's digital commerce landscape. This interplay highlights its role as a flexible enabler, surpassing mere transactional boundaries. The combination of history and technology establishes Adiba.com as a central force, propelling the dynamics of consumer engagement and technological sophistication within the trajectory of Nigeria's digital commerce evolution.

Buyam: Strategically established in 2013, Buyam.com.ng has positioned itself as a key player within Nigeria's dynamic digital commerce scene. The platform offers a diverse array of product categories ranging from electronics and health goods to encompass fashion, household items, groceries, livestock, automotive products, educational supplies, and an array of other domains.

The historical journey of Buyam.com.ng is intricately interwoven with its technological evolution. A pivotal milestone in its path was the deliberate introduction of a sophisticated online application, representing transformative advancements within the digital commerce paradigm. This application serves as a prime example of Buyam.com.ng's alignment with modern consumer preferences, seamlessly

embracing the mobile-centric culture. Operating as an intuitive channel, the application empowers users to explore the wide range of offerings. A distinctive hallmark of this technological leap is the seamless integration of geolocation precision, enabling users to access location-specific recommendations tailored to their immediate geographic context. Elevating consumer interactions, the application integrates a seamless instant messaging framework, facilitating direct communication channels between buyers and sellers.

The merging of historical heritage and technological prowess establishes Buyam.com.ng as a pioneer of innovation, fundamentally reshaping Nigeria's digital commerce landscape. This harmonious combination underscores its role as an adaptive catalyst, transcending the confines of mere transactions. The fusion of history and technology situates Buyam.com.ng as a vital driving force, propelling the dynamics of consumer engagement and technological refinement within the trajectory of Nigeria's digital commerce advancement.

3. KEY COMPONENTS OF ONLINE SHOPPING DESIGN

In designing any online shopping platform there are several design principles and key components that must be taken into consideration in order to achieve a high and recommendable shopping platform and provide customers with ease when using such platforms. This research work take a look at the various components that are paramount and should be considered when developing and online shopping platform.

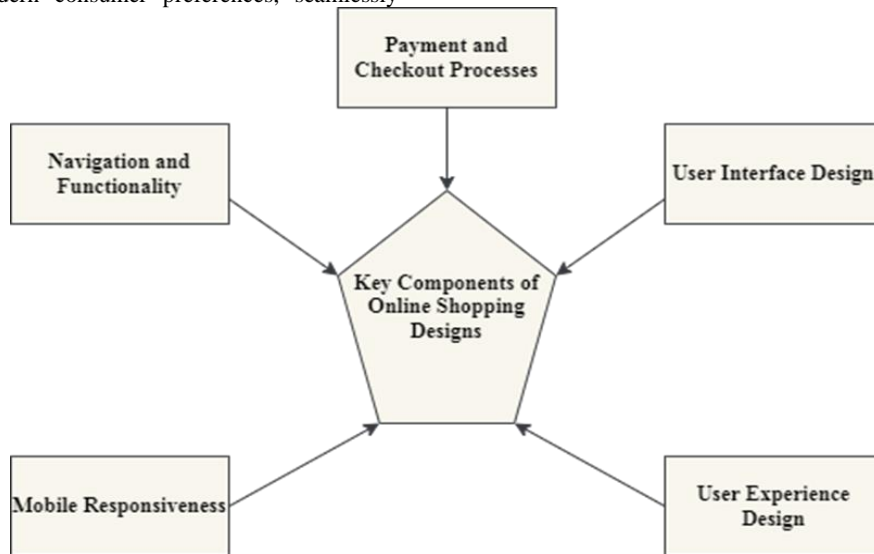


Fig. 2 Show the key components of online shopping design

3.1 Payment and Checkout Processes

Payment and Checkout Processes involves the various methods available for to make payment in an online shopping platform and how easy it is for customers to navigate and leave the platform when done with shopping. Payment is one of the most integral part of any buying and selling process or ecosystem, because most of the goods and services are exchanged for money which could be in cash or electronic transfers. But aside having a payment gateway for making payment for either goods or services, how secure the payment gateway also matters a lot to customers because one of the most problem faced by online shopping platforms is the issue of trust between the merchant and the customers [15]. Most payments for online goods or

services requires the customers to use their financial debit or credit card to process their purchase, thereby exposing their bank financial information which is meant to be kept secret. Kyaw [15] while stating how important it is to build trust between the seller and the buyer in an online selling platform, suggested the use of a Trusted Third Party (TTP) which should be the payment gateway and developed a system based on this using a Secure Socket Layer (SSL) and the Rivest-Shamir-Adleman (RSA) algorithm. They are other scenario where the customer prefer to pay after the product has been delivered [16], but most this pattern of payment is mostly based on the issue of trust between the merchant and the customers. This issue motivated Nduanya [16] to carry out a research that was focused on designing an online platform for existing shop with



a pay on delivery system. Trust and customers perception towards the security and ease of use of an online store play a significant role in building customers relation towards an online shopping platform. And payment and the process of checking out from an online store falls under this category, meaning that the relationship between customers and any online shopping platform can be improved by how secure and easy customers perceive an online shopping platform to be [17]. Knowing how this is in the business sector and increases the growth of the nation, the apex bank in the Nigeria introduced the Vision 2020 Nigeria Payment system with the aim to facilitate the general economic activities in the country by making sure there's a secure and efficient mechanism through payments are made within the banking sector which in turn is the major players in the payment delivery within the e-commerce business environment [18]. So, when building an online shopping online platform for shopping it is advisable to find out the best while also bearing in mind the security level and simplicity of use by customers. Providing multiple options is another way forward giving customers various payment gateways to select from, allowing them to choose from let's say using their bank card, PayPal, or any other payment option available [19]. When customers are provided with several options, some might be smart to transfer the amount needed to make the purchase online to an account they don't have money inside.

3.2 User Interface Design

When talking about User Interface (later referred to as UI) design, this is about the various aspects of design that has to do with the customers of an online shopping platform will see when interacting with the platform. This has to do with the technological designs, user's interaction procedures, making provision any kind of customer with a focus on the needs of several customers and the characteristics customers are supposed to possess and making proper provision for all of them. For a better interface for customer interface, it is advisable that developers and researchers explore and research about the target customers in other to develop a more UI for users. According to Diehl et al. [20], UI involves the proper designing and building of any system and/or software which provides users with easy usage and navigation. The author also went further to provide steps such as discussing with UI design experts, getting and analyzing the data obtained from experts, going through the experts suggestions again and making a shorter list from the experts suggestion, and finally selecting the best-fit list of actions to be taken [20]. Because of how important the UI is in any system, other researchers have also carried various study in other to provide a better understanding of the term UI. According to Dillion [21], UI are computer UIs that are can be easily learned and usable by users of an online shopping platform, making the computer-human interaction seamless. It's also important to take into consideration the kind of device that customers might be using to access this the online shopping platform. Flat design is one of the designing style that can be used to enhance UI, ensuring that the interactive nature of an online shopping application using minimal looks [22]. This is in line with the research carried which shows that the design of an online system significantly has an effect on the how users perceive the security level of such system [23]. Which can be implied that, the UI of an online shopping system can make or mar the trust level between the online shopping platform and its customers. Therefore, while working on other aspects to improve on the trust customer should have on an online shopping platform, developers should also take the

design into consideration and design the online shopping platform front-end to be very captivating and effective in other to improve customers security perception which also in-turn increase sales [23]. UI that is friendly to use improves efficiency, brings about user satisfaction, and promotes effective customer interaction with the online shopping system [24]. Making UI the only visual connection between the online shopping platform, the customers, and the goods and services [25].

With more emphasis on the role of UI in any computer software, Trieu [26] pointed to the fact that UI shouldn't be considered as decoration of interface alone but customers must find it easy to use and interact with, thereby converting a customer who was supposed to be a visitor to the online shopping platform into a permanent customers because the beauty, flexibility, and usability of the online shopping system [27]. Figma, Adobe XD, and Sketch are some of the commonly used tools for building a good UI [28], while the elements that make up the UI of any system are (i) the mental model, (ii) the navigation, (iii) the metaphor, (iv) the appearance, and lastly (v) the instruction [24].

3.3 User Experience

User Experience (UX) has to do with how the users of an online shopping platform feel generally about the system, this includes customers emotion as regards the shopping platform, what they think about the shopping platform, how they perceive the platform, and their reaction to the general usability of the platform in providing the goods and services to customers [28]. Going through various research literatures shows that the term UX has continue to build on the previous literatures, but no matter the buildup there are certain terminologies that remain significant in the context of UX [29]. UX can further be seen as all those factors that surrounds the reason why an online shopper derives joy from always patronizing a particular online shopping platform [29]. A good online experience by a customer while shopping on an online store promotes regular engagement and increases the level at which shoppers spend both time and money increasing the overall growth of the platform [27]. Is in this regard UX is seen as the interaction between the final users of any system and the system itself [26]. From various authors point of view and literature, there are reoccurring attributes that are possessed by an online shopping platform as regards the UX, these according to Berni and Borgianni [29] are what form the fundamental elements of UX. this elements are the system, the user, and the context these three attributes fall under the interaction element, while the ergonomic, the cognitive, and the emotional attributes are what makes up the typological elements of any UX.

3.4 Mobile Responsiveness

Mobile Responsiveness is one of the key components of any shopping platform because it is what allows the platform to adapt to any device used by a customer to access the online shopping platform. Responsiveness is a designing feature in software development that allows software builders to develop software that can change to suit mostly the screen size of the mobile device used to access the said software [30]. The technology behind building a responsive online shopping platform is the ability of such software that was initially developed on either a desktop or laptop or any personal computer to be compactable and function well of any other device [31]. A responsive software should be one that is able to possess the capacity to understand device it has been installed or it's been used in and automatically adapt to the device or

browser [32]. Building a software, website, or an online shopping platform that is fully responsive to any mobile device brings about the advantage of reduced cost because it can work well on any mobile device even though it was developed on a computer system, which also implies that it makes maintenance of such software easier, making more accessible to users, clients, or customers, and allowing for more audience to patronize the software [32]. Building responsive feature in to an online shopping software contributes to the adaptive behavior to various mobile devices and other changing factors within the mobile device that are somehow related to the software [33]. While noting that building a responsive web design for an online shopping platform to allow it possess the ability to reshape its size based on the screen sizes or resolution of mobile devices, the author Vaishali and Kadu [34] listed the features of a responsive website to include a custom layout structure, an adjustable screen resolution can fit to any screen size, flexibility, images that are responsive, and perfection [34].

3.5 Navigation and Functionality

Navigation and Functionality as a component of an online shopping design is an important part because it plays an important role within the platform. This component plays a key part in making sure that customers who shoppers on the online shopping platform enjoy lots of good experience while shopping with the platform over the internet [35]. This component is in consideration of what the online shoppers who the users of the platform will want to see while shopping and how functional the online shopping platform is to the customers [36]. While trying to achieve high navigational and functional ability within an online shopping platform, it's important avoid the display or the positioning of navigation and functional controls all over the design [36].

4. CHALLENGES OF ONLINE SHOPPING DESIGN IN NIGERIA



Fig. 3 show the various challenges faced by online shopping platforms in Nigeria

4.1 Digital Literacy

Digital literacy refers to individuals' proficiency in using digital technologies like computers, smart-phones, and the internet. In the context of online shopping in Nigeria, digital literacy influences consumers' interaction with e-commerce platforms [37]. Urban areas typically have higher digital literacy rates due to better access and education, while rural regions and older generations often lack these skills [38]. This challenge hampers

online shopping adoption as individuals unfamiliar with technology may struggle to navigate e-commerce sites, leading to hesitation in making digital transactions. Addressing this requires educational initiatives and user-friendly interfaces to empower consumers with varying levels of digital literacy. In Nigeria's online shopping landscape, digital literacy significantly impacts users' ability to engage with e-commerce platforms. This challenge arises from disparities in technological familiarity between urban and rural areas and



across generations. Consequently, addressing digital literacy becomes crucial for fostering a wider acceptance of online shopping.

4.2 Limited Internet Access

In the context of online shopping in Nigeria, the issue of limited internet access revolves around the uneven availability of dependable and cost-effective internet connectivity across diverse regions and social groups. Despite efforts to enhance internet coverage, a substantial portion of Nigeria's population, especially those residing in remote or rural areas, still face challenges in accessing consistent internet services [39]. This digital discrepancy serves as a significant hurdle for the expansion of online shopping since potential customers in underserved regions find it difficult to explore online marketplaces, compare products, or finalize transactions via the internet. This disparity in internet access restricts the scope of online shopping platforms and impedes their ability to connect with a wider array of customers. To tackle this obstacle, it's essential to invest in enhancing internet infrastructure in underserved areas, reducing data expenses, and promoting comprehensive digital inclusivity. This way, the potential of online shopping can be made accessible to all segments of Nigeria's population.

4.3 Inconsistent Quality and Product Information

When it comes to the online shopping scenario in Nigeria, the challenge of inconsistent quality and product information refers to the variability in the accuracy and reliability of details provided about products on e-commerce platforms. This issue stems from the fact that customers cannot physically interact with the items before purchasing, relying solely on the information presented online. As a consequence, there's a lack of confidence among shoppers about the quality, size, and other attributes of products, potentially leading to dissatisfaction upon receipt. This challenge highlights the disconnection between what is portrayed online and the actual real-world product [8].

Mitigating this concern requires e-commerce platforms to enhance transparency by providing comprehensive and accurate descriptions, high-resolution images, and, if feasible, user reviews and ratings. By ensuring that the online representation aligns closely with the real product, customers can make informed decisions and have realistic expectations. Moreover, establishing streamlined return and refund policies can reassure customers that if the received product doesn't match their expectations, they have a straightforward way to rectify the situation. Overall, addressing the challenge of inconsistent quality and product information is essential for building trust and confidence among online shoppers in Nigeria.

4.4 Trust and Security Concerns

When it comes to online shopping in Nigeria, the issue of trust and security concerns revolves around the worries that shoppers have regarding the safety of their personal and financial information during online transactions [40]. This worry stems from the growing instances of cybercrimes, data breaches, and online fraud, which have left people feeling exposed and cautious about sharing sensitive data like credit card details and personal identification online [41]. As a result, many individuals hesitate to dive into the world of online shopping due to these concerns. To address this challenge, online shopping platforms need to prioritize the security of their

systems. This means setting up strong encryption, secure payment gateways, and extra layers of authentication. Being transparent about the security measures in place can also help build trust with customers. Moreover, educating consumers about how to stay safe online and identify trustworthy websites and secure payment methods is equally important. Creating a quick and efficient system to address security-related issues, such as unauthorized transactions or account breaches, can also go a long way in boosting consumers' confidence in online shopping. By directly addressing these trust and security concerns, online shopping platforms can create an environment that's not only convenient but also safe, encouraging more Nigerians to confidently embrace the world of e-commerce.

4.5 Payment Challenges:

When it comes to online shopping in Nigeria, the issue of payment hurdles revolves around the complications and limitations surrounding the diverse methods available for digital transactions. This issue is particularly pronounced in a country as diverse as Nigeria, where traditional payment methods and newer digital options coexist. The challenge arises because not all online shopping platforms offer payment choices that cater to local preferences or accommodate the varying degrees of familiarity with digital methods [42]. To address this challenge, online shopping platforms need to provide a variety of payment options that suit the preferences and accessibility of a wide audience. This might involve offering traditional methods like paying upon delivery for those who favor it, alongside more contemporary digital payment solutions that are gaining traction. Making sure that each payment option comes with clear instructions and an interface that's easy to use can also boost customers' confidence when navigating the online shopping process. Additionally, educating potential shoppers about the merits and security of different payment choices can help alleviate concerns and encourage their involvement in online shopping activities. By tackling payment challenges head-on, e-commerce platforms can ensure that their services are accessible and user-friendly for a diverse range of customers throughout Nigeria.

4.6 High Data Costs

The issue of high data costs revolves around the hefty expenses linked to using the internet and data services on devices like mobile phones and computers. This problem occurs because purchasing data plans can be quite pricey, especially when compared to the average earnings of individuals. Consequently, many folks who are interested in online shopping find themselves grappling with financial constraints when they want to engage in activities like checking out e-commerce sites, comparing different products, and making online purchases. To tackle this obstacle, it's absolutely vital to make data services more affordable. This could involve efforts to bring down data costs and introduce more cost-effective data plans that cater to different pockets. Moreover, online shopping platforms could also do their part by optimizing their websites to use up less data while still offering a smooth and user-friendly experience. By addressing the challenge of high data costs, we can open up the world of online shopping to a broader range of people, making it more accessible and letting more folks experience the convenience and perks of online retail.

4.7 Returns and Refunds

Within the e-commerce landscape, the formidable challenge encompassing returns and refunds centers on the intricate and ambiguous procedural intricacies that transpire when customers initiate the return of acquired merchandise to secure



reimbursement [43]. This multifaceted conundrum emerges from the potential entanglements consumers might encounter while striving to effectuate product returns consequent to non-alignment with their expectations, coupled with their pursuit of restitutions for purchases. Apprehensions surrounding the ease of commencing the return process and the expeditiousness of refund processing can engender hesitance among prospective buyers, casting a shadow over the culmination of their digital transactions [43]. To confront this intricate predicament, it is indispensable for digital retail platforms to institute unambiguous and user-centric protocols delineating the guidelines for executing return requests and orchestrating refund transactions. These guidelines should meticulously elucidate the sequence of actions requisite for initiating returns, specify the temporal framework during which commodities may be repatriated, and expound the criteria necessitating qualification for restitution. Moreover, providing a diverse array of avenues for clientele to establish communication for assistance and inquiries germane to return procedures can substantially elevate the holistic shopping experience and cultivate a sense of reliance among patrons. The proactive communication of progress pertaining to return initiation and refund processing to customers can also alleviate reservations and communicate an aura of dependability. By streamlining the procedure and imbuing it with simplicity, digital commerce platforms can instill their patrons with a palpable sentiment of assurance, effectively underscoring their unwavering commitment to elevating customer contentment.

4.8 Competition with Traditional Retail

In the dynamic world of commerce, a significant challenge arises from the competition between online and traditional retail models. The heart of this challenge lies in finding the right balance between the convenience and expansive reach offered by digital platforms, and the personalized, tangible experience that brick-and-mortar stores provide. As online shopping gains momentum, traditional retailers are faced with the task of redefining their strategies to retain customer loyalty and deliver distinctive in-store interactions. Conversely, e-commerce platforms need to continuously innovate to replicate the sensory engagement and community aspects that traditional retail spaces naturally offer. This clash between established practices and modern trends highlights the evolving preferences and behaviors of consumers. Traditional retail relies on its physical presence, customer relationships, and immediate satisfaction, while online shopping promises convenience, an extensive product range, and doorstep delivery. Striking the right balance is vital, as the longevity of traditional retail and the surge of online retail can coexist. As the competition unfolds, retailers must leverage the strengths of both approaches to cater to the diverse spectrum of consumer preferences, ultimately shaping a retail landscape that seamlessly combines the advantages of both worlds.

4.9 Logistics and Infrastructure

In the dynamic landscape of e-commerce, the intricate challenge of logistics and infrastructure takes the spotlight. This intricate web involves coordinating processes from sourcing to the final delivery of products, demanding a robust setup that includes warehousing, transportation networks, and the intricacies of last-mile delivery. E-commerce platforms grapple with streamlining these processes to ensure seamless and timely deliveries, a challenge amplified in areas with insufficient logistical support. The solution lies in constructing a resilient logistics network, incorporating technological

advancements like real-time tracking and predictive analytics to bolster precision and responsiveness. Ultimately, this challenge underscores the necessity of bridging the gap between the digital marketplace and the physical realm, focusing not just on product delivery but on the fulfillment of promises and exceeding customer expectations. As the world of e-commerce continues to flourish, investments in logistics and infrastructure emerge as the cornerstone, promising a shopping experience where punctual delivery remains an unwavering commitment.

4.10 Lack of Localized Content

The Nigerian shopping scene faces a pressing challenge: the absence of content that speaks directly to its unique cultural context. In a globalized e-commerce landscape, the lack of localized content means that online platforms often fall short in resonating with Nigeria's diverse languages, cultures, and consumer preferences. This results in a disconnection between what's offered online and what truly reflects the Nigerian experience. To surmount this hurdle, e-commerce platforms operating in Nigeria need to adopt a more nuanced approach. Instead of relying solely on translations, the key lies in crafting content that authentically captures the essence of Nigerian culture. From visuals that align with local tastes to language that strikes a chord, tailoring content to resonate with the Nigerian identity can bridge the gap between the international nature of e-commerce and the longing for a shopping journey that feels familiar and relevant. By addressing the lack of localized content, the Nigerian online shopping experience can be transformed. This endeavor not only deepens the connection between Nigerian consumers and e-commerce platforms but also nurtures a sense of belonging within the broader virtual marketplace. Ultimately, it's about striking a harmonious balance where global accessibility meets the rich tapestry of Nigeria's local culture.

4.11 Counterfeit and Fraudulent Products

In the vast world of online shopping, a significant issue emerges in the shape of counterfeit and fraudulent products. This challenge arises from the surge in unethical entities exploiting the convenience of e-commerce platforms. Customers are left vulnerable to the possibility of unknowingly purchasing counterfeit or subpar items, endangering their well-being or disappointing their expectations.

Addressing this matter requires a comprehensive strategy. E-commerce platforms must take robust steps to verify the credibility of both sellers and the products they showcase. Enforcing stringent regulations and quality assessments can serve as strong deterrents against the spread of counterfeit goods. Moreover, cultivating a system of transparent and accountable reviews empowers customers to share their experiences, bolstering the platform's credibility. Ultimately, the battle against counterfeit and fraudulent products emphasizes the urgency of creating a dependable environment in the online shopping arena. Overcoming this challenge isn't just about safeguarding consumer interests, but also upholding the reputation and ethics of e-commerce platforms. By placing authenticity at the forefront, the digital marketplace can continue flourishing as a space where customers can confidently make purchases.

5. OPPORTUNITY FOR IMPROVING ONLINE SHOPPING IN NIGERIA

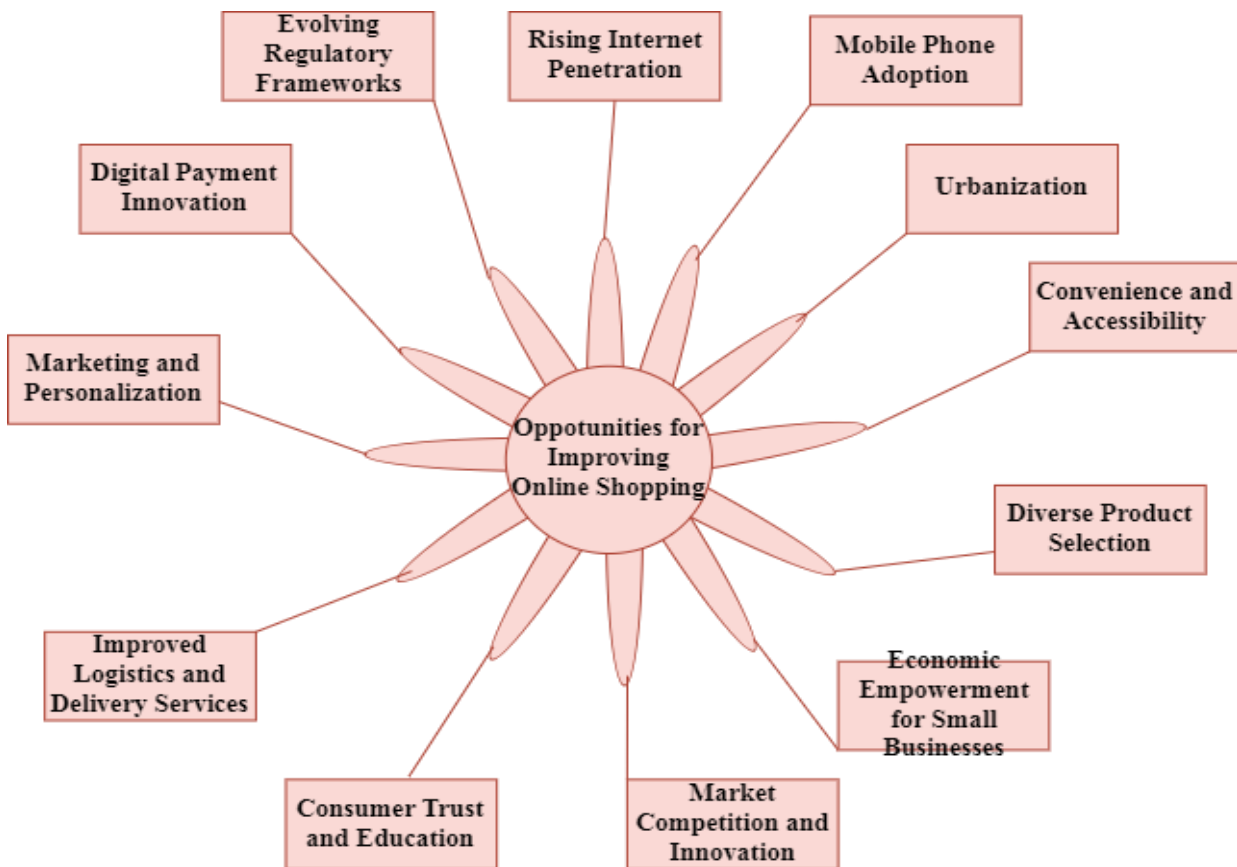


Fig. 4 shows the future prospects of online shopping in Nigeria

5.1 Rising Internet Penetration

Think about the internet like a giant web that connects people and information all around the world. In Nigeria, more and more people are joining this web. This is what we mean by "internet penetration" – it's like more folks are getting the key to enter this online world. Now, why is this a big deal for online shopping? Well, imagine online shopping as a virtual marketplace where you can buy things without going to a physical store. For this virtual shopping to work well, there need to be a lot of people online. The more people who have access to the internet, the more potential customers there are for these online stores. So, as more Nigerians start using the internet, it's like adding more visitors to this virtual marketplace. When there are more visitors, it makes the online shops more successful. This is important because online shopping depends on people being able to browse products and make purchases over the internet. When lots of people can connect to the internet, it means that online shops can show their products to a wider audience. It's a bit like having a bigger audience for a concert – the more people who come, the more successful the concert becomes. In the same way, the more Nigerians become connected to the internet, the more successful online shopping can become because there are more potential buyers. This growth in internet usage is like opening doors to a world of possibilities for both shoppers and businesses. It means people can shop conveniently from home, explore different products, and even start their own online businesses. It's like making the online world a more bustling

and vibrant place for everyone involved. However, it's also important to remember that while more people joining the online world is a great thing, there are challenges that need to be addressed. Some places might still have slow internet, and not everyone might know how to use it. Also, some people might worry about the safety of online transactions. But overall, as more Nigerians get connected, it's like painting a brighter future for online shopping in the country.

5.2 Youth Demographic

Consider the youthful cohort in Nigeria, characterized by vivacity, inquisitiveness, and ardor. These individuals constitute a significant component of the "youth demographic," a pivotal element that holds substantial implications for the prospective trajectory of online commerce within the nation. Evidently, the youth demographic frequently displays a heightened proficiency in technology adoption, including smart-phones, computing systems, and digital interfaces. They adeptly navigate applications, social media platforms, and virtual communication mediums. It is noteworthy that the realm of online shopping operates within the digital domain. Given the youth's adeptness with digital technology, their proclivity to explore online shopping becomes discernible. The import of this phenomenon is substantial. As an increasing number of young Nigerians acquaint themselves with the conveniences and gratifications of online purchasing, they concurrently unveil an expanse of opportunities. Equipped with handheld smart-phones, they seamlessly peruse virtual



marketplaces, select items of interest, and with a mere few clicks, facilitate doorstep deliveries. Owing to their inclination to experiment and share experiences, positive encounters with online shopping prompt them to disseminate their satisfaction among their social circles. The crux of the excitement emerges in this context: the assimilation of online shopping within the youth demographic catalyzes the incubation of novel paradigms in trade within Nigeria. Such a metamorphosis potentially ushers in a surge of youthful entrepreneurs initiating their digital enterprises and conceiving inventive merchandise resonant with their peers. Hence, discussions surrounding the youth demographics intersection with online shopping encapsulate an emergent wave of digitally savvy consumers, poised to reshape the trajectory of Nigerian consumerism, all through the tap of a digit.

5.3 Mobile Technology Adoption

Mobile Technology Adoption basically means that more and more people are using smart-phones and similar devices in their daily lives. In Nigeria, this trend is quite noticeable. You know how almost everyone has a smart-phone nowadays? Well, these devices are becoming really important not just for talking to people, but also for doing lots of other things. Think about it: people in Nigeria are using their phones to do everything from chatting with friends on social media to paying their bills. And because so many people are using smart-phones, this is changing how people shop online. Here's the cool part: as smart-phones become more popular, people are using them to do online shopping too. They're using their phones to look at different products, compare them, and decide what to buy. And since smart-phones are so handy and easy to carry around, people can shop online whenever they have a little free time, like waiting for the bus or during lunch breaks. This shift to using smart-phones for shopping is creating a new way of buying and selling things. People can browse through virtual stores, find things they like, and even make payments right from their phones. It's like having a shop in your pocket! And as more people get used to this idea, it's changing the way we shop and shaping how businesses sell things in Nigeria.

5.4 Urbanization and Changing Lifestyles

Urbanization, marked by city growth and lifestyle shifts, is a crucial aspect of modern societal change. It involves city expansion and intensification, altering how people live, interact, and engage economically. This interplay of urbanization and evolving lifestyles sheds light on consumer behavior dynamics, especially concerning online shopping. In Nigeria, urban centers are growing, reconfiguring daily life with busier routines. This may limit time for traditional shopping. Online shopping emerges as a solution, allowing remote procurement. Urbanization fosters online shopping adoption due to its alignment with evolving consumer preferences. Beyond convenience, online shopping offers varied choices, addressing the demand for unique items inaccessible locally. This connection between urbanization, lifestyle changes, and online shopping showcases adaptable consumer behavior in response to evolving urban realities. Overall, urbanization's influence on consumer engagement is exemplified by the rise of online shopping as a response to modern urban demands. This phenomenon underlines the intricate relationship between technology, urban progression, and changing commerce dynamics.

5.5 Digital Payment Innovation

Digital payment innovation revolutionizes how we exchange money in the digital age. It involves creating and using technology-based solutions that make electronic transactions seamless, secure, and efficient for both individuals and businesses. In Nigeria, digital payment innovation has become prominent with the introduction of new platforms like mobile wallets, contactless payments, and peer-to-peer transfer apps. These technologies are changing how people do financial transactions, making them faster and more accessible. These innovations also play a crucial role in promoting financial inclusion, especially in areas with limited traditional banking services. They offer opportunities for people without bank accounts to participate in the formal economy, empowering them economically. Digital payment innovation and e-commerce go hand in hand. The trust and convenience of digital payments have boosted people's confidence in online shopping, leading to the growth of online markets. This growth, in turn, has driven the evolution of digital payment methods, creating solutions tailored to online transactions. In short, digital payment innovation is transforming finance, making it easier and more inclusive. Its connection to online shopping shows how it's changing the way we do business and creating a more digital economy.

5.6 Marketing and Personalization

Marketing and personalization are two intertwined concepts that play a pivotal role in shaping modern consumer experiences and driving business success. These terms encompass strategies and techniques employed by businesses to effectively connect with their target audiences, offer tailored content, and build lasting relationships. Marketing involves a set of activities aimed at promoting products, services, or brands to potential customers. It encompasses various channels such as advertising, public relations, social media, and more. Effective marketing involves understanding customer preferences, crafting compelling messages, and selecting the right platforms to engage with the audience. In essence, marketing is about creating awareness and interest in what a business has to offer. Personalization, on the other hand, goes a step further by customizing the marketing approach to individual consumers. It recognizes that each consumer is unique and has specific needs and preferences. Personalization leverages data and technology to deliver content, recommendations, and offers that resonate with an individual's interests and behaviors. This approach not only enhances customer engagement but also fosters a sense of connection and loyalty. In the context of Nigeria, where diverse consumer segments exist, effective marketing and personalization strategies are critical. Tailoring marketing efforts to local cultural nuances and preferences can significantly impact a business's success. Furthermore, the digital age has provided tools for advanced personalization, with algorithms analyzing data to create hyper-targeted campaigns and recommendations. Marketing and personalization are integral components of a business's growth strategy. A successful marriage of these two concepts can lead to enhanced customer satisfaction, increased sales, and a stronger brand presence. As consumer expectations continue to evolve, businesses that adeptly utilize marketing and personalization stand poised to forge lasting connections in the competitive landscape.

5.7 COVID-19 Impact

The global impact of COVID-19, stemming from the novel coronavirus, has prompted widespread changes in society,



economics, and daily life. This unparalleled crisis has reshaped how people live, work, and interact. Public health responses encompassed measures like lockdowns, social distancing, and mask mandates to curb the virus's spread. These measures aimed to protect vulnerable populations and highlight healthcare infrastructure's importance. Economically, the pandemic triggered worldwide disruptions. Lockdowns and travel restrictions led to supply chain disruptions and shortages of essential goods. Businesses faced closures, reduced operations, and financial uncertainty, accentuating sector vulnerabilities and the need for safety nets. The pandemic accelerated digital technology adoption, making remote work and online platforms standard. It spotlighted community support and exposed disparities among marginalized groups, underscoring equitable access's necessity. While vaccines offer hope, the pandemic's effects persist. Lessons learned prompt discussions about crisis readiness, healthcare resilience, and enduring shifts in work and daily life. These insights are poised to shape policies and societal norms for the future.

5.8 Improved Logistics and Delivery Services

Enhanced logistics and delivery services play a vital role in the success of modern businesses. They optimize supply chains, streamline operations, and significantly improve customer satisfaction. By incorporating advanced technologies like tracking systems, real-time data analytics, and route optimization software, companies gain better visibility into their supply chains. This empowers them to proactively manage inventory, reduce delays, and allocate resources more efficiently. These improvements also directly enhance the customer experience. Deliveries become faster, more reliable, and come with transparent tracking features, contributing to higher levels of customer satisfaction. The introduction of innovations like drones and autonomous vehicles has the potential to further revolutionize delivery speed and efficiency, ensuring swift and accurate order fulfillment.

In Nigeria, the diverse geography and ongoing urbanization underscore the critical need for efficient delivery services. Bridging geographical gaps is essential to effectively serve both urban centers and remote areas, contributing to wider market reach and promoting inclusivity in a rapidly evolving business landscape.

In parallel with the rise of e-commerce, the synergy between improved logistics and delivery services becomes even more significant. The rapid growth of online shopping places a premium on reliable and prompt delivery services to maintain customer trust and loyalty. As e-commerce continues to flourish, delivery efficiency remains pivotal in shaping consumer preferences and driving purchasing decisions.

In conclusion, optimizing logistics and delivery services is not just practical, but a strategic imperative in today's business landscape. By leveraging technology-driven solutions and tailoring approaches to local contexts, businesses can achieve streamlined supply chains, expedited deliveries, and exceptional customer experiences. This alignment of efficient logistics with evolving consumer expectations will undoubtedly be a key determinant of success within the competitive market environment.

5.9 Consumer Trust and Education

In the intricate landscape of modern business, the pillars of consumer trust and education stand as cornerstones that profoundly influence market dynamics. These fundamental elements wield remarkable power in nurturing brand

allegiance, cultivating meaningful connections, and steering well-informed purchasing decisions. Consumer trust, often likened to a firm's bedrock, emerges from a delicate interplay of unwavering product quality, dependable services, and crystal-clear communication. The establishment and preservation of this trust mandate businesses to not only uphold their commitments but also promptly address concerns and operate with unwavering integrity. Trust forms the bedrock not just for repeat transactions but also for the ripple effect of positive word-of-mouth endorsements that can significantly elevate a brand's standing. Sitting in tandem with trust, education serves as its empowering partner. Educated consumers are empowered consumers, capable of making confident choices by comprehending the intrinsic value and merits of a product or service. Transparent and accurate dissemination of information by businesses helps consumers navigate the sea of options adeptly. Whether it's achieved through detailed product descriptions, comprehensive guides, or responsive customer support, the dissemination of knowledge bridges the gap and forges a sense of collaboration between businesses and consumers. In the unique context of Nigeria, where markets are undergoing rapid transformations, the interplay of consumer trust and education gains paramount importance. As online shopping and e-commerce carve their niches, assuring consumers about transactional security and data protection becomes pivotal. Extensive educational endeavors can demystify the digital sphere, instilling confidence in these platforms and opening avenues for growth. Furthermore, the intricate dance of consumer trust and education is one of reciprocity. Trust blooms when businesses embrace transparent communication and responsive customer support—both of which hinge on educating consumers about products, services, and potential complexities. An informed consumer cohort not only holds businesses accountable but also becomes fervent advocates, championing their positive experiences to peers.

In summation, the symbiotic symphony of consumer trust and education orchestrates the harmonious rhythm of successful business-consumer liaisons. Trust is the cornerstone fashioned through steadfast dependability and lucid interactions, while education bestows consumers with the tools to tread the market landscape with discernment. Together, these elements kindle brand loyalty, sow the seeds of sterling repute, and navigate the uncharted waters of modern markets with grace.

5.10 Diverse Product Selection

In today's ever-evolving marketplace, the concept of offering a diverse product selection holds immense importance. This strategy not only enhances the shopping experience for consumers but also reflects the dynamic nature of their preferences and the versatility of businesses in meeting those needs. Having a wide range of products to choose from enables businesses to connect with various customer segments. This means catering to different tastes, styles, and practical requirements. By doing so, companies can effectively appeal to a broad spectrum of customers – from those seeking trendy fashion items to those in search of everyday household solutions.

Moreover, a diverse product selection prompts consumers to explore and engage more deeply. It encourages them to stumble upon new and exciting products they might not have initially considered. This not only boosts sales but also elevates overall customer satisfaction. Such variety also sends a powerful message of inclusivity, recognizing and valuing the unique preferences of consumers from different backgrounds.



In the Nigerian context, the value of a diverse product selection becomes particularly pronounced. Given the country's rich cultural diversity and varying demographics, tailoring offerings to match these distinct preferences can significantly enhance customer loyalty and expand market reach.

Furthermore, the interplay between diverse product selection and the surge of e-commerce is undeniable. Online platforms provide an ideal avenue to showcase an extensive array of products, unburdened by physical space constraints. This not only meets the expectations of modern consumers but also highlights businesses' agility in responding promptly to changing trends. In essence, a diverse product selection stands as a foundational pillar in today's business landscape. It speaks volumes about a business's understanding of its customers, their ever-evolving tastes, and the readiness to cater to their diverse needs. Particularly in Nigeria's dynamic environment, this approach is not only strategic but also reflective of the nation's cultural tapestry. Leveraging this strategy alongside the convenience of e-commerce channels, businesses can thrive while resonating with a continuously evolving consumer base.

5.10 Economic Empowerment for Small Businesses

The concept of economic empowerment for small businesses holds incredible potential as a driving force that ripples through local economies, sparking growth, innovation, and community strength. This essential idea encompasses strategies and efforts aimed at boosting the financial independence, sustainability, and competitive edge of small enterprises. Small businesses are the beating heart of economic diversity and job generation. They open doors to entrepreneurship and self-employment, effectively curbing unemployment rates and nurturing a thriving business ecosystem. Economic empowerment initiatives extend a helping hand to these small businesses, granting them access to resources, funding, and skill-building opportunities. This, in turn, can lead to heightened productivity and improved profitability.

In the Nigerian context, where small and medium-sized businesses significantly shape the economy, the importance of economic empowerment takes on even greater significance. Providing support to SMEs through training, mentorship, and facilitating access to markets can unleash their latent potential, sparking economic growth at local and national levels alike. What's more, economic empowerment fuels the flames of innovation. With the means to invest in research, development, and cutting-edge technology, small businesses can cook up fresh solutions, products, and services that tackle current challenges and cater to ever-evolving consumer desires. This innovative spirit breathes life into market dynamism and fortitude.

Embracing economic empowerment also acts as a sturdy shield for community resilience. Empowered local businesses can navigate economic uncertainties, contribute to social stability, and empower communities to stand on their own feet. Additionally, these businesses often give back to their communities through job opportunities, charitable initiatives, and other community-focused endeavors.

In a nutshell, economic empowerment for small businesses acts as a powerful engine propelling broader societal growth. It sparks economic diversity, fuels job creation, ignites innovation, fortifies communities, and ultimately propels overall economic advancement. Particularly in Nigeria, where SMEs play a vital role, nurturing small businesses holds the key to cultivating a dynamic and sustainable economy.

5.12 Market Competition and Innovation

The dance between market competition and innovation is a captivating interplay that propels industries forward and defines the landscape of business. These two forces are like partners in a dynamic tango, pushing companies to constantly adapt, innovate, and reach for higher levels of excellence. Market competition sets the stage for a vibrant arena where businesses vie for the attention and loyalty of customers. The quest for a bigger slice of the market pie drives companies to enhance their offerings, elevate quality, and carve out distinct identities in the midst of rivals. This healthy rivalry spurs a cycle of perpetual improvement, as businesses strive to outdo each other by bringing fresh and innovative ideas to the table. On the flip side, innovation is the magic ingredient that catapults businesses ahead of their competitors. It's the art of introducing new concepts, technologies, and approaches that shake up the norm and cater to unmet needs. Companies that put innovation at their core often lead their industries, trailblazing with groundbreaking products, services, and business strategies that capture consumers' imaginations and grant them a significant edge.

In Nigeria, this dance between market competition and innovation takes on a unique significance. With the country's economy blossoming and diversifying, industries are buzzing with activity and potential. Here, market competition becomes the spark that ignites innovation, compelling businesses to step up, think creatively, and capitalize on emerging prospects. And let's not just limit innovation to products. It extends its magic to processes, customer experiences, and even overarching business strategies. By embracing innovation, companies can streamline operations, offer captivating customer interactions, and even birth entirely new markets.

To sum it up, market competition and innovation are the dynamic duo that fuels progress in the business realm. Competition lights the fire of improvement and individuality, while innovation empowers companies to lead and redefine. In Nigeria's ever-evolving economic landscape, this lively partnership creates a fertile ground for businesses to flourish, contributing their unique beats to the symphony of growth.

6. TRUST BUILDING THROUGH INTERACTIVE VIDEO CONFIRMATION

In pursuit of an exceptional online shopping experience, we're excited to introduce a series of innovative changes designed to elevate platforms functionality. This research overarching ambition is to explore existing shopping platforms and propose a method to improve online shopping that if followed by developers will result in a leading e-commerce website that resonates with the preferences and needs of Nigerian and broader African consumers. With this in mind, we're proposing the integration of specialized modules to augment the existing system. These modules are envisioned to enhance the efficiency, reliability, and trustworthiness of online shopping environment.

A. Product Description Video Module: A Visual Revolution

Imagine a shopping experience where static images are replaced by dynamic video demonstrations. The "Product Description Video Module" is a proposed design to transform the way customers interact with products. By enabling interactive video channels alongside textual descriptions, patrons can now validate products in a more immersive



manner. This enhancement isn't just about visuals; it's about real-time engagement. Customers can directly communicate with marketers and vendors, gaining comprehensive insights before making a purchase. This engagement is poised to foster trust, curbing instances of post-delivery dissatisfaction. This is meant to reduce the issue where customers encounter situations where products fall short of expectations upon delivery. The video module aims to address this by empowering customers to make informed decisions, reducing the risk of unsatisfactory purchases.

B. Product Review Video Module: Honesty Through Video

Product reviews have been a cornerstone of online shopping, yet skepticism persists. The "Product Review Video Module" offers a solution by introducing authentic video-based reviews. Imagine having the ability to watch fellow customers share their experiences with the products they've purchased. These candid videos provide a level of authenticity that written reviews often lack. This module will empower shoppers to make more informed choices, backed by real user experiences. By enhancing the credibility of product reviews, we're not just offering products; we're building a foundation of trust.

C. Abandoned Product Cart Module: Completing the Journey

We all know the frustration of filling up a cart and then abandoning it. The "Abandoned Product Cart Module" can address this challenge by tracking customers who don't complete the checkout process. It's a proactive approach to engagement. What this module should do is to automatically send reminder emails to customers with pending transactions, encouraging them to finalize their purchases. This personalized touch could significantly increase the conversion rates between marketers and customers. Unlike the current system, this proposed module can be built to take a step beyond and actively support customers in completing their journey from selection to checkout.

To implement these enhancements systematically, other approaches can be used but from the related literature explored, the Structured Systems Analysis and Design Methodology (SSADM) approach aligns with the smooth development of such system. This is because it breaks down the process into logical phases, ensuring a coherent transition from feasibility assessment to physical system design. This method's fundamental models encompass logical data modeling, data flow modeling, and entity behavior modeling, providing us with a solid framework for success. One of the core part of developing a software is being able to measure the performance of such software to be sure of its ability to meet the objective(s) it was developed. This research suggest that the following analysis should be carried out to measure the software:

Technical Feasibility: The online shopping platform should be analyzed to determine how the innovation align with the existing infrastructure and software tools. Ensuring compatibility with Windows, Internet services, and optimized hardware and software elements.

Economic Feasibility: Balancing costs and benefits is crucial. A comprehensive cost-benefit analysis will guide our decision-making, weighing developmental and implementation expenses against potential gains.

Operational Feasibility: We'll assess the practicality of these features in real-world scenarios, ensuring they align with user behaviors and expectations.

Recommended Tools for Development

For an optimum result, the recommended development toolkit should comprise of versatile tools that serve distinct purposes, web development tools such as:

- i. JavaScript: This empowers various programming styles, handling text, dates, regular expressions, and more.
- ii. PHP: This scripting language is popularly known for speed, flexibility, and seamless integration with HTML.
- iii. HTML: This is a universally compatible and lightweight for efficient loading.
- iv. CSS: This is effective to streamline styling, enhance SEO, and to offer tailored users experience.
- v. MySQL: This is renowned basically for its security, efficiency, and transactional support.
- vi. AJAX: This helps to elevate interactivity, reduce server load, and stand out in form validation.

Measuring Success

The effectively measure the effectiveness of the software, below are recommended metrics (question) that should be tick (answer) to make sure the software meets the proposed objective:

- i. Sales Rate: Does the new model increase sales during evaluation?
- ii. Customer Trust and Satisfaction: Does it enhance trust and satisfaction in the online shopping experience?
- iii. Risk Mitigation: Does it reduce instances of product rejection post-delivery?
- iv. Checkout Process Enhancement: Does it improve customer checkout completion rates?

In conclusion, the proposed enhancements should be designed to revolutionize the online shopping experience. By adopting specialized modules and leveraging SSADM methodology, while being committed to enhancing trust, engagement, and satisfaction for online shoppers in Nigeria and beyond.

7. DISCUSSION

This research work is a comprehensive review of several online shopping platforms in Nigeria. The review is built on the critically exploring the popular online shopping platforms in Nigeria, how online shopping have evolved with the continuous technological growth in the country, and finally suggesting possible improvement to shopping platforms to promote trust between vendors and shoppers. The challenges faced by Nigeria online shopping systems and the prospects were also looked at and properly highlighted in this review work.



The exploration of the online shopping systems in Nigeria shows that various online shopping system have developed to either to avail to online shoppers goods or services not found on already existing sites, improve on the method(s) services, and also for the sake of competing. Although there are several online shopping platforms in Nigeria, Table 1 provides a list of the most popular and regularly visited online shopping platforms in Nigeria, the year there were established, and the products/services they're focused on.

Several challenges and prospects are pointed out in Fig. 3 and Fig. 4 respectively, showing the issues that are continually faced by platforms that provides online shopping for shoppers. But at same time there are future opportunities in online shopping in Nigeria due to the continues growth in population, technological devices used by Nigerians, high population in youths, and generally Nigerians attitude towards embracing the technological advancement that has continue to enter the country.

Finally, the review suggested a possible new direction for researchers and developers who intend to improve the shopping experience and most importantly build trust for online shoppers and vendors. The research suggest a trust building online shopping platform through interactive video confirmation, where online shoppers can interact with online vendors through video call and in the process confirm the originality of the product they wish to purchase.

8. CONCLUSION

Online shopping has almost become part of everyday human life just like going to a traditional market place to get daily needs only that this is done at ease and at ones convenience. This study mainly explores the various online shopping platforms in Nigeria. Providing a brief history of online shopping in Nigeria, the popularly accessed online shopping platforms in Nigeria as well as the services provided by those platforms. Recognizing the different reasons for the continues introduction of new online shopping system and exploring the Nigeria online platforms like Jumia, Konga, Slot, DealDay, Tafoo and many more to find a common issue and possible solution.

However, this review reveals that trust issue is one of the problems faced by online shopping platforms in Nigeria due to issues due to payment methods, delivery of product, and getting same product as what was advertised on the platform. Therefore, to enhance the process and improve trust, the review suggested possible solution that tackles most challenges, promotes trust between those involved, and provide future direction for researchers who intend to explore the area for improving the shopping experience for customers and improve on the overall aspect of online shopping in Nigeria and the world at large.

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