

# **Integrating Blockchain Technology with Small and Medium Enterprises (SMEs) for Economic Development in Africa**

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**ABSTRACT:-** Small and Medium Enterprises (SMEs) are pivotal in fostering innovation, stimulating economic growth, and creating job opportunities. The sector has underutilised potential to alleviate emerging economies' socio-economic challenges effectively. This conceptual study explored integrating blockchain technology with SMEs as a panacea for Africa's economic development. Based on recent empirical findings and studies on SMEs worldwide, particularly on SMEs in Africa. Findings show that SMEs continue to contribute the most to the Gross Domestic Product (GDP) and account for almost 80% of African jobs, highlighting their significant role as a catalyst for socio-economic advancement. The study recommends that Governments pay more attention to SMEs by implementing suitable, tailored policies that facilitate and empower them to harness their capabilities and advance economic development.

**Keywords:** *Blockchain technology; small and medium enterprises (SMEs); economic development; Challenges*

## **I. INTRODUCTION**

Small and Medium Enterprises (SMEs) are crucial in fostering economic growth in several African nations and worldwide (Onileowo & Anifowose, 2020). These enterprises contribute more than 50 per cent of such countries' Gross Domestic Product (GDP). SMEs are significant suppliers of larger firms' human capital, innovation, technological advancements, and raw materials. Moreover, they are the primary source of entrepreneurship and business development (Aliya Yesmin, 2021; Madanchian et al., 2015; Rens et al., 2021). The significance of each of these roles holds excellent relevance to the growth and development of the economy, as noted by Schumpeter (Langroodi & Langroodi, 2021; Ogujiuba et al., 2022; Sulaiman et al., 2015).

Nevertheless, several studies (Dansu, 2013; Katua, 2014; Osotimehin et al., 2012; Ozioko & Nnadi, 2018; Ussif & Salifu, 2020) have examined the favourable contribution of SMEs to a nation's economy in general. Nonetheless, these studies have ignored integrating blockchain technology with SMEs as a panacea for fostering economic development in Africa. According to Mondosha & Majoni (2018), before the discovery of petroleum products in 1958, Nigeria was one of the African countries that prioritised and promoted agricultural output. Thus, the emergence of petroleum products has led to a heavy dependence by governments, companies, and individuals on petroleum as the primary contributor to the country's GDP, potentially overshadowing other sources of national revenue.

The advent of the Fourth Industrial Revolution marked a significant shift, integrating the physical and virtual worlds through equipment and sensors in production. This transformative process, characterized by exponential technological advancements, has introduced various innovations, with blockchain as a notable development. Originally associated with the distributed ledger behind Bitcoin transactions in 2008, blockchain has found applications in finance, banking, logistics, and insurance. It is gaining prominence in discussions about its potential impact on broader economic sectors. Realising the full benefits of blockchain's transformative possibilities hinges on the preparedness of enterprises and countries regarding mindset and infrastructure. The question of how small-scale companies or less developed countries, currently facing challenges in accessing finance and lacking technological expertise, can harness the benefits of blockchain remains significant. The widening gap between small and medium-sized enterprises and large corporations, driven by innovations and technological product exports, a critical factor in economic development, poses challenges. Additionally, blockchain's role in exacerbating development disparities between developing and developed countries underscores its potential risks.

This study, however, focuses on incorporating blockchain technology in promoting SMEs as a panacea for fostering economic development in Africa, with Nigeria as a specific case study. According to Abiodun & Entebang (2015), SMEs play a vital role in the Nigerian economy. However, excessive reliance on crude oil has diminished focus on alternative economic sectors, contributing to unemployment, a sustained rise in inflation, reduced utilisation of industrial capacity, and a diminished emphasis on agriculture. Notwithstanding, it is worth noting that the contribution of SMEs in promoting growth across nations has been of considerable importance.

SMEs are widely recognised as a significant driver of economic growth, making substantial contributions to a nation's GDP, employment opportunities, industrial production, poverty reduction efforts, export stimulation, and fostering independence. According to Muriithi (2017), empirical data indicates that SMEs significantly contribute to the Nigerian GDP across many sectors. Specifically, the industry sector accounts for around 41% of the GDP, followed by agriculture at 32% and services at 27%. Industrial labour is employed in the SME sector in several nations, such as Japan, Germany, and the United States. Specifically, approximately 80% of the industrial workers in Japan, 50% in Germany, and 46% in the USA are engaged in SMEs. According to Eniola (2014), SMEs contribute around 39% to the national income of the United States. In several countries, such as India, Indonesia, and Mali, SMEs have been acknowledged as comprising over 95% of the manufacturing sector. These enterprises have emerged as powerful drivers of growth, contributing significantly to employment opportunities, industrial output, and the promotion of exports (Madanchian et al., 2015).

However, despite recognising SMEs as a means of promoting economic growth and generating employment opportunities, their restricted size hinders their ability to achieve economies of scale (Khanin et al., 2022). Poor absorptive capacity and insufficient financial resources impede SME development in Nigeria (Akoh & Lekhanya, 2022). SMEs possess the power to make significant contributions to the advancement of economic growth. Still, she is grossly incapacitated to foster economic development, hence the integration of blockchain technology to boost the contributions of small and medium enterprises for economic development. Despite facing numerous challenges hindering their ability to stimulate economic growth effectively, SMEs offer employment opportunities across emerging nations like Nigeria. If properly employed and supported, enterprises have the potential to alleviate some hardships and reduce poverty levels among citizens.

Furthermore, the policy framework establishes specific criteria to determine enterprises' classification in these categories (Ezekiel et al., 2016). The definition was created by considering size, employment capacity, and assets. In line with the revised National MSMEs policy (2021-2025), as shown in Table 1 below, Nano/Homestead Enterprises can be characterised as businesses that can generate employment for fewer than 1-2 workers and possess assets valued at a turnover of less than 3Million. Micro enterprises can be characterised as businesses that can generate employment for fewer than ten workers and own assets valued at less than N3-25 million. Small enterprises can employ 10 to 49 workers and possess assets between N3 million and N25 million. Medium enterprises refer to organisations that can hire a force ranging from 50 to 199 individuals. These enterprises own assets between N100 million and N1000 million.

**Table 1. Revised Classification of the National MSMEs Policy (2021-2025)**

S/N	Size Category	Employment	Turnover (N Million)
1	Nano/Homestead Enterprises	1-2	Less than 3
2	Micro Enterprises	3-9	3-25 million
3	Small Enterprises	10-49	25+ but less than 100
4	Medium	50-199	100+ but less than 1000

**Source: (NDP, 2021)**

Moreover, African SMEs are widely recognised as drivers of innovation, economic development, and employment generation (Amoah & Amoah, 2018; Quaye & Mensah, 2019). The sector is pivotal in driving economic development by facilitating growth, enhancing productivity, generating employment opportunities, alleviating poverty, and fostering competitiveness. According to (Survey & Micro, 2017), cultivating and nurturing domestic entrepreneurial potentials, technological innovation, management competencies, and technical skills are paramount for advancing prosperity in a dynamic and advantageous economy. According to Adisa et al. (2014), most local enterprises in Nigeria were SMEs, accounting for around 98% of the overall composition. SMEs were discovered to contribute 18 per cent to the country's GDP while representing 20 per cent of the total employment in the current period. Amoah & Dziwornu (2022) established that South African SMEs substantially foster equitable economic growth and development. The study presents an analysis of the National Development Plan 2030, as reported by Yang et al. (2023), highlighting the recognition by the South African government of the significant role played by SMEs in achieving the objectives specified in the 2030 agenda. They are considered critical drivers of economic expansion and development and essential contributors to the advancement of entrepreneurship and partnership. SMEs are responsible for providing goods, services, credit, repairs for second-hand products, mobilising domestic savings, and fostering entrepreneurial spirit (Eze & Johnny, 2020). Therefore, it may be inferred that SMEs have emerged as a focal point in policy deliberations throughout numerous emerging African countries. According to Nuwagaba (2015), Tanzanian SMEs have played a significant role in the transition of the country's economy from a command economy to a market economy. Their findings suggest a significant contribution of 60% to the nation's GDP. This is because SMEs can generate employment opportunities, foster innovation, create commercial prospects, and contribute to societal welfare through corporate social responsibility (CSR) initiatives.

In addition, simply implementing an SME plan in isolation is inadequate for effectively tackling SMEs' difficulties and promoting their growth. According to Oviedo et al. (2022), the firm's capacity to sustain operations over an extended period is contingent upon effectively balancing the allocation of resources between short and long-term funding (Javed et al., 2019). Also, the accelerated growth of small enterprises in Ethiopia is accompanied by a notably heightened prevalence of firm closures (Adeosun & Shittu, 2022). The propensity for company failure is notably high during the first 2-4 years of operation (Rocheska et al., 2017). Considering the significance of SMEs to national development objectives and their status as a crucial component of development policies, there is a shortage of comprehensive research examining their role as a panacea for economic development and the issues they face in a broader framework (Garba et al., 2015; Lee, 2020; Ostrom & Cox, 2010; Quartey et al., 2017). Therefore, this conceptual paper explores SMEs' contribution towards sustainable development advancement and identifies the barriers that impede their progress. The study focuses on the continent of Africa, specifically examining the developing and impoverished countries in the region predominantly characterised by SMEs. Nigeria as a relevant case study. This research explores these contributions and how much they advance the nation's economic growth from various empirical works. This study contributes to the current literature on SMEs, Entrepreneurship and Economic Development by providing evidence from different empirical results highlighting the importance of SMEs' contribution as a panacea for the economic development of a nation. It offers valuable insights for the government, industry participants, and practitioners, enabling them to formulate effective policies and strategies that may consistently optimise the benefits provided to society at large. And in doing this, it is believed that the participation of individuals in financial systems would contribute to the eradication of poverty and foster economic and social development while promoting financial stability.

## **II. IMPACT OF INTEGRATING BLOCKCHAIN TECHNOLOGY WITH SMALL AND MEDIUM ENTERPRISES (SMES) FOR ECONOMIC DEVELOPMENT**

Blockchain technology has emerged as a transformative force with the potential to revolutionize various industries across the globe. Small and Medium Enterprises (SMEs) form the backbone of many economies, particularly in Africa, where they contribute significantly to employment and GDP. Integrating blockchain technology with SMEs in Africa promises to foster economic development by addressing key challenges such as financial inclusion, transparency, and efficiency.

### **2.1.1 Financial Inclusion and Access to Capital**

One of the primary challenges SMEs face in Africa is limited access to traditional banking services and capital. Blockchain technology can address this issue by providing decentralized financial services through smart contracts and digital tokens. These mechanisms can enable SMEs to access funding without intermediaries, reducing costs and increasing efficiency (Narayanan et al., 2016). Smart contracts, executed automatically on the blockchain, can streamline processes such as loan approvals, reducing the bureaucratic hurdles SMEs face. SMEs are vital contributors to economic development, employment generation, and innovation. However, a significant proportion of these enterprises, particularly in developing countries, struggle to access formal financial services. Traditional banking systems often present barriers such as stringent collateral requirements, high transaction costs, and lengthy approval processes, limiting the financial inclusion of SMEs (Demirgüç-Kunt et al., 2018). The inability to access capital hampers the growth potential of these enterprises and perpetuates economic inequality. Blockchain technology, initially introduced as the underlying technology for cryptocurrencies like Bitcoin, has evolved into a versatile tool with the potential to transform the financial landscape. The decentralized nature of blockchain eliminates the need for intermediaries, providing a direct and secure channel for financial transactions. This characteristic is particularly advantageous for SMEs, as it reduces costs associated with traditional banking processes, making financial services more accessible (Narayanan et al., 2016). This has also made SMEs engage in smart contracts. Smart contracts, self-executing contracts with the terms of the agreement directly written into code, are a vital feature of blockchain technology. These contracts automate and enforce predefined conditions, enabling transparent and efficient financial transactions. Smart contracts can streamline processes such as loan approvals for SMEs, reducing the bureaucratic hurdles associated with traditional financing (Swan, 2015). This automation saves time and lowers operational costs, making financial services more affordable for SMEs.

### **2.1.2 Enhancing Transparency and Trust**

Transparency and trust are critical for sustainable success in today's rapidly evolving business landscape. Organizations across industries increasingly recognize the importance of building and maintaining trust with stakeholders, including customers, investors, and partners. Transparency and trust are foundational elements of a healthy business environment. Transparent practices involving openness and clarity in communication and operations foster trust among stakeholders (Möllering, 2006). Trust, in turn, is a crucial

driver of positive relationships, collaboration, and long-term success for businesses (Lewicki et al., 2006). Establishing and maintaining transparency and trust are essential for organizations seeking to navigate the complexities of the modern global marketplace. One of the most promising technologies for enhancing transparency is blockchain. Blockchain's decentralized and immutable ledger enables secure and transparent record-keeping, making it ideal for various applications, including supply chain management, financial transactions, and smart contracts (Swan, 2015). By utilizing blockchain, businesses can provide stakeholders with real-time access to trustworthy and tamper-proof information, strengthening transparency in their operations. AI-powered tools contribute significantly to transparency by automating data analysis and decision-making processes. Machine learning algorithms can sift through vast data to identify patterns, anomalies, and potential risks (Marr, 2018). This improves the accuracy of information and enables organizations to address issues, reinforcing trust through data-driven decision-making proactively. Blockchain's decentralized and immutable nature makes it an ideal solution for enhancing transparency and trust in business transactions. SMEs often face challenges related to fraud and lack of trust in their dealings with suppliers, customers, and partners. By recording transactions on a secure and transparent blockchain, SMEs can build trust and credibility in their business operations (Swan, 2015). This increased transparency can lead to better stakeholder relationships, fostering a conducive environment for economic growth.

### **2.1.3 Supply Chain Management and Traceability**

Supply Chain Management (SCM) plays a pivotal role in the success and sustainability of businesses, particularly in the context of Small and Medium Enterprises (SMEs). As vital contributors to economic development, SMEs face unique challenges in managing their supply chains efficiently. SMEs often operate in highly competitive markets where efficiency and responsiveness are critical. Effective supply chain management enables SMEs to optimize processes, reduce costs, and enhance customer satisfaction (Christopher, 2016). By strategically managing the flow of goods, information, and finances, SMEs can gain a competitive edge in the market, fostering their growth and contributing to economic development. The integration of blockchain technology has emerged as a game-changer in enhancing traceability within supply chains. Blockchain, as a decentralized and immutable ledger, ensures transparency and trust in recording transactions across the supply chain (Ivanov, 2017). Each transaction or event is securely recorded, creating an unalterable history of the product's journey. This technology offers SMEs a reliable solution for improving traceability, which is particularly crucial in sectors such as food and pharmaceuticals. Traceability contributes to better quality control and ensures compliance with industry regulations and standards.

SMEs often struggle with meeting stringent regulatory requirements due to limited resources and capabilities. Implementing traceability measures helps SMEs adhere to regulatory standards, opening up opportunities for market expansion and international trade (Mollenkopf et al., 2010). Many African SMEs operate within the agri-business and manufacturing sectors, where supply chain management is crucial. Blockchain technology can provide an immutable and transparent ledger for recording every stage of the supply chain, from production to distribution. This ensures the authenticity and traceability of products, addressing issues such as counterfeit goods and food safety concerns (Mougayar, 2016). This benefits SMEs in meeting regulatory standards and enhances the reputation of African products in international markets. Effective supply chain management, coupled with traceability, helps SMEs identify and mitigate operational risks promptly. Early detection of issues, such as supply chain disruptions or quality issues, allows SMEs to implement corrective actions swiftly, minimizing the impact on operations and costs (Chopra & Sodhi, 2014). Reduced operational risks contribute to the overall resilience of SMEs and promote economic development by ensuring sustained business operations.

### **2.1.4 Reducing Transaction Costs and Improving Efficiency**

Small and Medium Enterprises (SMEs) are pivotal in global economic development. However, these enterprises often grapple with high transaction costs and operational inefficiencies that impede their growth. In recent times, technological advancements have offered solutions to mitigate these challenges. One of the significant impediments SMEs face is the burden of transaction costs, which include expenses related to financial transactions, paperwork, and communication. Technology, particularly digital payment systems, and blockchain, has emerged as a powerful tool to streamline and reduce these costs. Digital payment platforms facilitate faster and more cost-effective transactions, eliminating the need for physical cash handling and expensive payment processing methods (BIS, 2021). Moreover, blockchain technology offers decentralized and secure transaction mechanisms, reducing reliance on intermediaries and minimizing associated fees (Swan, 2015). Operational inefficiencies can hinder the growth and competitiveness of SMEs. Embracing digital solutions, such as Enterprise Resource Planning (ERP) systems, Customer Relationship Management (CRM) software, and cloud computing, can significantly enhance operational efficiency (Nambisan, 2017). These technologies streamline business processes, automate routine tasks, and provide real-time insights into

operations, enabling SMEs to make informed decisions promptly. Cloud-based solutions, in particular, offer scalable and affordable options for SMEs, reducing the need for significant upfront investments in IT infrastructure (Wu et al., 2017). Blockchain's decentralized nature eliminates the need for intermediaries, reducing transaction costs for SMEs. Traditional payment systems often involve high fees and delays, especially in cross-border transactions. Blockchain-based payment systems can facilitate faster and more cost-effective transactions, enabling SMEs to engage in global trade more efficiently (Tapscott and Tapscott, 2016). The increased efficiency in financial transactions can contribute to the overall competitiveness of SMEs in the African market.

## 2.4 Economic Development

Previous governments' primary focus in wealthy and developing countries has consistently been on economic development (Horvath et al., 2021). In modern times, governments have widened their attention beyond emerging nations' economic development to include SMEs' growth and advancement (Dankiewicz et al., 2020). Scholars and scientists have defined economic development from various angles. According to Kongolo, (2010), economic development pertains to creating wealth that enhances a nation's populace's economic, political, and social well-being. (Kinnunen & Georgescu (2021) and Muriithi (2017) posit that economic development may be described as a planned array of activities and programs that improve the financial welfare of a nation's population. Consequently, the enhancement necessitates the creation of wealth, diversification of the economy, establishment and preservation of employment, and creation of innovation and entrepreneurial prospects (Androniceanu et al., 2019).

SMEs have emerged as crucial catalysts for the economic advancement of numerous developing nations. Neneh & Van Zyl (2017) and Ngek (2014) assert SMEs' undeniable significance in their contributions to economic development. These contributions include poverty reduction, enhancing a country's GDP, generating employment opportunities for a substantial portion of the population, and providing affordable goods, services, and social amenities to the communities in which they operate or reside. SMEs play a crucial role in fostering economic development in the African continent. According to Szirmai et al. (2013), microenterprises play a significant role in job creation, income production, and poverty alleviation, especially in rural regions less attractive to more giant corporations in terms of investment. According to Nastisin et al. (2021) and Olaniyi & Adekanmbi (2022), SMEs are significant in addressing social issues and implementing policy strategies to reduce poverty. Despite the various obstacles SMEs encounter. They have emerged as key contributors to job creation, innovation, and business opportunities. These contributions have positively impacted government revenue generation and the overall stability of the country's political system. These measures have facilitated the progress of economic growth in the nation. The significant contributions of SMEs have been crucial in enhancing the African economy. According to Prasetyo (2019), SMEs also significantly advance local supply chains, reducing the overall cost of goods and services. This contribution enhances the accessibility of markets for small-scale producers. SMEs play a crucial role in fostering economic development by promoting and enabling innovation and entrepreneurship. However, Karimi & Walter (2016), posits that there is a tendency for entrepreneurs to exhibit a higher level of willingness to engage in risk-taking behaviour and explore novel business models. Such a propensity results in the creation of innovative products and services that effectively cater to the demands of local communities. SMEs can make significant contributions to economic development through their investments in research and development (R&D). Such assets can foster the creation of a more competitive and innovative economy (Woolley et al., 2022). Adomako et al. (2022) argued that SMEs play a crucial role in the economic development of many developing nations, with a particular focus on Africa. These enterprises have consistently been at the forefront of fostering the acceleration of economic growth. Moreover, fostering enhanced collaboration between SMEs and giant corporations and establishing partnerships with universities and research organisations is essential. Collaboration of this nature can facilitate the growth of SMEs into previously untapped areas and the acquisition of novel technology. It can foster the creation of innovative products and services (Munongo & Pooe, 2022).

According to Azman & Ali (2015), acquiring education and training is crucial for the growth of SMEs, as it facilitates the development of essential competencies and expertise necessary for success in the business world. Success relies heavily on effective communication, which entails the utilisation of suitable connections and structures of language Candi & Kitagawa, (2022). SMEs may be required to allocate resources towards training and support initiatives to enhance their communication abilities to accomplish this goal Azman & Ali, (2015). Acknowledging that promoting SMEs should not be regarded as a universal solution for economic progress in Africa is crucial. It is also essential to consider other factors, such as political stability and effective governance, as Xu et al. (2022) noted. However, it is vital to note that SMEs possess the capacity to significantly contribute to promoting economic growth and development in Africa. Consequently, policymakers and stakeholders should prioritise their support and take active measures to facilitate their advancement (Shah et al., 2022). Table 2 depicts the contributions made by SMEs to the GDP and jobs in several nations.

**Table 2. Contribution of designated African SMEs to Employment and Gross Domestic Product (GDP)**

Countries	Contributions to GDP (%)	Contribution to employment (%)	References
Ethiopia	3.4%	90%	Central Statistics Authority (CSA), (2003). Gebrehiwot (2006),
Ghana	70%	49%	Ghana Bank Doing Business Report (2013), Ussif & Salifu (2020), Abor & Quartey (2010),
Kenya	40-50%	80%	Mwarari, & Ngugi (2013)
Nigeria	50%	70%	Ariyo (2011), Dansu, Francis Sewhenu (2013),
Rwanda	20.5%	60%	Mukamuganga (2011),
South Africa	50-60%	60%	Ngek & Smit (2013), Willemse (2010),
Tanzania	60%	20%	Eichengreen & Tong (2005), Igwe et al. (2019),
Uganda	25%	72%	Francis & Annet (2019),
Zambia	8%	30%	Mbuta (2007),
Zimbabwe	40%	15%	Katua (2014), Zwinoira (2015).

SMEs play a significant role in various fields of economic development, encompassing mining, manufacturing, the service industry, agriculture, fisheries, and even climate change. Nevertheless, many SMEs mainly operate in the service industry, contributing to approximately 66% of total employment rates (Ugoani & Ibeenwo, 2015). SMEs are crucial in bridging the gap between primary industries and advanced, well-established significant sectors. Moreover, they serve as a foundation for facilitating Nigeria's development advancement. The sectors promote development by providing input and services to other industries and directly offering customers goods and services. According to Abiodun (2014), SMEs are crucial for sustainable growth and economic development in African countries. Although SMEs play a pivotal role in fostering economic development, they face considerable challenges that impede their success.

### III. CHALLENGES OF INTEGRATING BLOCKCHAIN TECHNOLOGY WITH SME INVESTMENT IN NIGERIA

While integrating blockchain technology with SMEs in Africa offers significant potential, several challenges must be addressed. These include regulatory uncertainties, technological infrastructure, and the need for education and awareness among SME owners. Governments and relevant stakeholders should collaborate to create a conducive regulatory environment and invest in the necessary infrastructure to support blockchain adoption. SMEs perform a vital function in the economic framework of several nations. Their success is essential for the advancement and growth of a given country. Nevertheless, SMEs encounter many obstacles that impede their development and improvement. Several challenges are met, including;

**Financing:** Financing for businesses plays a crucial role in driving the growth and efficiency of the industry, ensuring its operations run smoothly (Onileowo et al., 2022). Unfortunately, every business requires sufficient financial support in order to establish and grow. Due to the inherent risks associated with small businesses, banks are often hesitant to provide loans to SMEs without a guarantee of repayment. Where the banks cannot refuse, they offer terms that are so unfavourable that they ultimately deter potential entrepreneurs. The financial difficulties experienced by SMEs in Nigeria may find resolution in a few years if the various policies implemented by the federal government are successful (Dar et al., 2017).

**The issue of organization:** It is widely acknowledged that a meticulously structured enterprise can reap numerous benefits, resulting in favourable returns on investment. However, SMEs often struggle with their size and the tendency of many entrepreneurs to be self-reliant, even when they could benefit from assistance (Ernst et al., 2022). Given the limited resources, the challenge arises in effectively utilising skills to handle business operations. Therefore, the regular administrative tasks that take up a significant amount of the small businessman's time are not effectively organised and assigned to others. Good organisations must utilise aids such as strategic planning, budgeting, and inventory control to exploit available opportunities for better returns fully (Samuel et al., 2022).

### **3.1 Lack of Innovation and Technical Skills**

One of the main obstacles SMEs faces in most of Africa is the absence of innovation and technical expertise. Without innovation and technical knowledge, a favourable outcome would not be attainable. Ahmad et al. (2022) state that innovation and technical abilities primarily drive the relationship between entrepreneurship and positive returns. The power of employees to innovate and possess technical expertise is crucial in generating increased profits. Also, innovation and talent are influential variables that prompt an investor to allocate resources. According to Coldwell et al. (2022), many SMEs encounter challenges in keeping pace with modern technological advances, placing them in a disadvantaged position in the market. Khanin et al. (2022) opine that the deficiency in innovation and technical proficiency frequently arises from limited opportunities for participation in training and educational programs. SMEs are encouraged to allocate resources towards investing in training and education projects to enhance their technical competencies and remain abreast of modern technological advances. It will enable organisations to maintain their market competitiveness and improve their likelihood of success. In tandem with training and educational initiatives, SMEs can benefit from establishing collaborative alliances with more giant corporations and research organisations. These collaborations allow SMEs to acquire innovative technology and specialised technical knowledge (Grimpe et al., 2022). Governments can also contribute to advancing innovation and technical expertise by providing financial support for research and development (R&D) efforts and establishing policies that foster innovation and entrepreneurship.

### **3.2 Political Environment**

The political environment refers to the prevailing conditions and factors that shape the functioning and dynamics of a political system. The political climate in Africa frequently exhibits volatility, presenting a substantial obstacle for SMEs and investors (Karakara, 2020). Many investors desire to allocate their capital to small and medium firm investments. However, the concern arises from politicians' discontinuance of government practices, which instills fear and reluctance among investors to deploy their resources. This phenomenon results in abandoned projects that promise significant development, negatively impacting investors' desire to invest in such a locality (Xu et al., 2022). It can be attributed to the perception of confident investors as affiliated with opposition parties, which can harm entrepreneurial activities; thus, Political instability can potentially result in economic instability, adversely affecting SMEs (Aisen & José, 2013). A stable political climate contributes to SMEs' performance. Hence, it is essential to have a government that demonstrates unwavering dedication to establishing a conducive atmosphere for businesses to thrive and grow. These encompass policies facilitating entrepreneurship advancement, mitigating corruption, and establishing equitable conditions for all enterprises. In tandem with stable political situations, SMEs necessitate access to financial resources. According to Onileowo (2021), many SMEs encounter difficulties obtaining funding due to inadequate collateral or an absence of credit history. Governments possess the capacity to facilitate the enhancement of financial accessibility through the formulation and implementation of policies that bolster the establishment and growth of financial institutions specifically designed to cater to the needs of SMEs (Madan, 2020). Governments can offer assurances for loans extended to SMEs to mitigate risk for lenders.

### **3.3 Regulatory and Legal Framework**

The regulatory and legal framework refers to the rules and regulations governing and guiding the operations and conduct of individuals, organisations, and institutions in a particular jurisdiction. It encompasses the laws, policies, and procedures.

Small and medium firms must adhere to regulatory and legal frameworks and meet specific standards, which vary based on the sector in which they operate. In many instances, investors in small and medium firms lack awareness regarding the regulatory and legal obligations associated with their respective businesses (Wickert et al., 2016). Africa's regulatory and legislative environment is frequently characterised by its complex nature and demanding requirements, presenting a substantial obstacle for SMEs. SMEs often encounter difficulties adhering to regulations and legislation, resulting in significant time and financial burdens. On many occasions, financial resources have been allocated, only to be penalised by governing bodies due to failure to fulfill stipulated criteria. According to Pu et al. (2021), many SME investors lack the financial capacity to meet these requirements, resulting in the cessation of their operations. Regulatory hurdles have instilled anxiety among investors, deterring them from allocating funds to SMEs. The hindrance of growth and development may arise, whereas SMEs necessitate a regulatory and legal environment characterised by simplicity, transparency, and ease of compliance. It will assist individuals in directing their attention toward their primary business operations and fostering the growth of their enterprises (Wickert et al., 2016).

Also, governments can facilitate market access and simplify regulatory and legal frameworks. Many SMEs encounter challenges in penetrating markets, primarily attributable to trade obstacles and a shortage of pertinent information. Governments can formulate policies that facilitate the accessibility of calls by reducing

trade obstacles and providing comprehensive information about market opportunities. Governments can facilitate regional integration to establish expanded markets for SMEs.

### **3.4 Social Infrastructure**

Refers to the systems, facilities, and structures that support and facilitate social activities in a community or society. Infrastructure is a significant determinant of the success of SMEs. However, SMEs encounter a notable obstacle in the form of inadequate social infrastructure. According to Azman & Ali (2015), many SMEs face challenges in obtaining essential services such as reliable road infrastructure, electricity supply, water access, transportation facilities, and communication networks. These vital resources are either scarce or not easily accessible, hindering these enterprises' efficient functioning.

In contrast, Ali et al. (2022) affirmed that investing in small enterprises necessitates investors to allocate additional resources to provide essential infrastructure and services or explore other methods, thereby escalating operational expenses. It can impede their operational activities and challenge their competitiveness in the market. Hence, SMEs necessitate robust and cost-effective social infrastructure to foster their growth and advancement. Governments must allocate resources towards developing social infrastructure to establish a conducive atmosphere that encourages the growth and success of SMEs (Brako et al., 2016). In addition to physical infrastructure, social infrastructure encompasses education and healthcare services. A significant challenge SMEs face is the limited availability of skilled labour, primarily attributed to inadequate education and healthcare facilities provisions. Governments must allocate resources towards enhancing the education and healthcare sectors, as this would foster the creation of a competent workforce capable of facilitating the growth and advancement of SMEs.

### **3.5 Insecurity**

The issue of insecurity is a substantial obstacle for SMEs operating in Africa (Yahaya & Usman, 2016). Many SMEs function in regions susceptible to insecurity, which might adversely affect their operational activities. Insecurity can result in adverse consequences such as property loss, business disruption, and even life loss. SMEs necessitate a secure working environment. Governments must allocate resources to enhance security measures to establish a conducive atmosphere that fosters growth and prosperity in SMEs. Insecurity may also engender an absence of faith in governmental bodies and organisations, impeding the progress and advancement of SMEs. Governments must establish policies that foster trust and transparency to promote a conducive atmosphere for the growth and success of SMEs (Abbas et al., 2022; Brako et al., 2016).

### **3.6 Religious Views**

It can be a significant obstacle for African small enterprises. According to Hoogendoorn (2016), religious views may restrict specific business operations, limiting the growth and advancement of SMEs. Investment opportunities in the SME sector warrant careful consideration. For example, engaging in pig husbandry business in the predominantly Muslim-dominated Northern region is not feasible. According to Durst & Leyer (2022), SMEs should understand the religious views prevalent among the communities where they conduct their operations and devise strategies to navigate and accommodate these beliefs effectively. Hence, these measures will enable individuals to mitigate conflicts and foster the growth of their enterprises. Religious views can also influence the availability of a skillful workforce. Certain religious doctrines may restrict women's participation in the workforce, constraining professional labour availability. Governments must formulate policies that facilitate the advancement of gender equality and ensure universal access to education and healthcare services (Omotosho, 2015).

### **3.7 Significant Burden of Taxation**

High taxes and various dues have excluded several SMEs from the prevailing economic framework. SMEs in Africa have a significant obstacle in the form of a substantial burden of taxes and licenses (Kouam & Asongu, 2022; Smulders, 2006). Consequently, numerous SMEs encounter difficulties meeting the financial obligations of the substantial taxes and dues levied by governmental authorities. It impedes their overall growth and advancement in development. SMEs require a fair and financially sustainable income tax and dues framework. Governments must provide a tax and dues framework that fosters the growth and development of SMEs. Excessive taxation and financial obligations can also result in a shortage of investment in SMEs. Investors may exhibit reluctance in allocating assets towards SMEs owing to higher tax rates and financial commitments, hence constraining the accessibility of financing options for SMEs. Governments must formulate policies promoting investment in SMEs and providing them access to financial resources (Can, 2022).



### 3.8 Economy

The economic condition plays a pivotal role in influencing the performance of SMEs. Meanwhile, African SMEs face challenges due to the prevailing economic conditions (Leboea, 2017). As a result, many SMEs function in economies that exhibit suboptimal performance, adversely affecting their operational activities. According to Dutt & Nyman-Metcalf (2021), SMEs rely on a robust and consistent economic environment to flourish. It implies that Governments must allocate resources to the economy to establish a conducive atmosphere for the growth and advancement of SMEs. One of the challenges encountered by SMEs in Africa is the limited accessibility to markets. According to Wickert et al., (2016), many SMEs face challenges entering markets, primarily attributable to trade obstacles and limited access to pertinent information. Governments can formulate policies that facilitate the accessibility of calls by reducing trade obstacles and disseminating information about market possibilities. Governments can facilitate regional integration to foster the development of broader markets for SMEs (Brako et al., 2016).

## IV. CONCLUSION

SMEs are crucial in fostering economic development across Africa. The empirical evidence from multiple studies suggests that SMEs play a vital role in economic growth in Africa, with Nigeria serving as a case study. However, as previously discussed, they face challenges like limited innovation, political volatility, complex regulatory structures, inadequate social infrastructure, insecurity, and heavy tax burdens. Governments need supportive environments, training, stable political conditions, regulatory simplification, financial access, and social infrastructure investment to overcome these. Integrating blockchain technology can also enhance economic development. The study underscores the importance of SMEs in Africa's sustainable economic growth, highlighting their unique challenges and prospects across various industries, such as agriculture, manufacturing, and services.

## V. IMPLICATION

The significance of the issues SMEs encountered in Africa is noteworthy. Ranging from insufficient innovation and technical expertise may result in lower competitiveness within the market, hence impeding the growth and advancement of SMEs. Political instability, complex regulatory environments, lack of social infrastructure, insecurity, religious beliefs, excessive taxation, and financial obligations. These obstacles hinder their growth and development, potentially leading to asset loss, business disruption, and human life loss. Governments must address these issues to create a supportive environment for SMEs' success and contribute to economic development in Africa.

## VI. RECOMMENDATIONS

In light of the obstacles encountered by SMEs in Africa, the subsequent suggestions are put forth: Governments must allocate resources towards implementing training and education initiatives aimed at enhancing the technical competencies of SMEs and ensuring their compatibility with modern technological advancements. Establishing and maintaining stable political frameworks, simplified regulatory environments, social infrastructure development, and practical religious understanding are crucial for SMEs to thrive in Africa. Governments should establish fair tax structures and diversify investor interests to support economic growth and improve SMEs, contributing to sustainable development goals and fostering economic growth.

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