
Innovative Start-Ups and Economic Development in Nigeria: Entrepreneurial Eco-System in Perspective

Sylvanus Ikechukwu Nwodo

Department of Marketing, Rhema University Nigeria, Aba, Abia State

Peter Maduabuchi Anyaogu.

Department of Marketing, Abia State Polytechnic, Aba

Uchenna Gospel Okafor

Ulster University, Department of Global Business and Enterprise, Birmingham Campus

Victor Rupert Otu

Department of Management, Rhema University Nigeria, Aba, Abia State

doi: <https://doi.org/10.37745/ijbmr.2013/vol14n71538>

Published August 16, 2026

Citation: Nwodo S.I., Anyaogu P.M., Okafor U.G., Out V.R. (2026) Innovative Start-Ups and Economic Development in Nigeria: Entrepreneurial Eco-System in Perspective, *International Journal of Business and Management Review*, 14(7),15-38

Abstract: *Innovative start-ups have become significant drivers of economic growth, technological advancement, job creation, and social transformation across the world. In developing economies such as Nigeria, innovative start-ups contribute to solving socio-economic challenges through digital solutions, product innovation and service delivery improvements. This study adopted a descriptive survey research design. The population comprised founders, managers, and key personnel of innovative start-ups operating in Nigeria. Using Startup Blink's ecosystem database, Nigeria has approximately 1,475 active start-ups. The sample size of 315 was determined using the Taro Yamane (1967) formula: A stratified random sampling technique was employed and the population was stratified according to Nigeria's six geopolitical zones: The sources of data were both Primary and secondary data. The validity of instrument was ascertained by subjecting the questionnaire to face validity and content validity where the experts in entrepreneurship, management and research methodology assessed the instrument and made necessary corrections. The reliability of instrument was established using the Cronbach Alpha method and a reliability coefficient value of 0.75 was obtained and considered acceptable. The study employed both descriptive and inferential statistics. This study examined the concept, characteristics, importance, challenges and prospects of innovative start-ups, with emphasis on the Nigerian entrepreneurial ecosystem. The study also discussed innovation strategies, funding sources, government policies, and factors influencing start-up success. Findings reveal that innovative start-ups stimulate productivity, attract investment, encourage entrepreneurship and enhance competitiveness. However, they face numerous challenges including inadequate funding, infrastructural deficiencies, policy inconsistencies and market uncertainties. The study, therefore, recommended stronger government support, improved access to finance, entrepreneurial education and favorable regulatory frameworks to promote sustainable growth of innovative start-ups in Nigeria.*

Keywords: Innovation, start-ups, innovative start-ups, entrepreneurship, venture capital, economic development

INTRODUCTION

Innovation is a critical factor in modern business development and economic transformation. In today's digital economy, innovative start-ups have emerged as engines of industrial growth, technological advancement, and employment generation (Adegbite et al, 2024). Innovative start-ups are newly established businesses that introduce new ideas, products, services, technologies, or processes to solve existing problems or create new market opportunities. Globally, countries such as the United States, China, and India have witnessed rapid growth in start-up ecosystems, particularly in sectors such as financial technology (FinTech), health technology (HealthTech), agricultural technology (AgriTech), education technology (EdTech), and e-commerce (Andretch, 2021; Autio et al, 2020). These start-ups have transformed industries by introducing disruptive innovations and improving efficiency. In Nigeria, innovative start-ups have gained prominence in recent years, especially in Lagos, Abuja, and other urban centers. Nigeria's start-up ecosystem is one of the fastest-growing in Africa, particularly in fintech and digital service (Hisrich et al, 2020; Davila et al, 2018). The passage of the Nigeria Start-Up Act 2022 further demonstrates government recognition of the importance of innovative entrepreneurship. The Act defines start-ups as companies focused on innovative digital technology products or services (Kuratko, 2023; Christensea, 2020)). Innovative start-ups play major roles in addressing unemployment, promoting financial inclusion, improving access to services, and enhancing economic diversification. However, despite their importance, many start-ups struggle with limited access to capital, poor infrastructure, unstable regulations, and market competition (Hisrich et al, 2023; Kuratko, 2022). This study therefore examines innovative start-ups, their contributions, challenges, opportunities, and strategies for sustainable growth.

Statement of the Problem

Despite the increasing number of innovative start-ups in Nigeria and other developing economies, many fail within their early years of operation. The major problems confronting innovative start-ups include (Oserwalder and Pigneur, 2019; Lumpkin and Dess, 2018; Nambison, 2017).

- i). Inadequate access to funding and investment capital.
- ii). Poor infrastructure such as unreliable electricity and internet connectivity.
- iii). Regulatory and policy uncertainties.
- iv). Lack of managerial and entrepreneurial skills.
- v). Difficulty in scaling operations and market penetration.
- v). High operational costs and economic instability.
- vi). Limited research and development support.

These problems hinder the growth and sustainability of innovative enterprises and reduce their contribution to national economic development.

Objectives of the Study

The main objective of this study is to examine innovative start-ups and their role in economic development in Nigeria. Specific objectives are to:

- i).Examine the concept and characteristics of innovative start-ups.
- ii).Determine the contributions of innovative start-ups to economic development
- iii).Identify the challenges facing innovative start-ups.
- iv).Examine the factors influencing the success of innovative start-ups.
- v).Identify strategies for improving innovative start-ups

Research Questions.

The research questions raised to guide the conduct of the study are:

- i).What are innovative start-ups?
- ii).What are the characteristics of innovative start-ups?
- iii).How do innovative start-ups contribute to economic development?
- iv).What challenges affect innovative start-ups?

Research Hypotheses;

The following null hypotheses are formulated for the study.

H0₁ Innovative start-ups do not significantly contribute to economic development.

H0₂: Technological innovation has no significant effect on start-up performance.

H0₃: Access to finance does not significantly influence innovative start-up growth.

Significance of the Study.

Innovative startups are newly established businesses that introduce new products, services, technologies, or business models to solve problems and create value. They play a vital role in driving economic development by fostering innovation, creating jobs, increasing productivity, and improving living standards. The study will benefit entrepreneurs seeking to establish innovative businesses and government agencies responsible for entrepreneurship development. Investors and venture capitalists. Researchers and academic institutions. Policy makers interested in economic development.

a). Entrepreneurs.

- i).Business opportunities: Innovative startups enable entrepreneurs to identify market gaps and develop creative solutions.
- ii).Wealth creation: Successful startups generate income, profits, and long-term wealth.
- iii).Skill development: Entrepreneurs improve their leadership, managerial, technical, and problem-solving skills.
- iv).Employment creation: Startups allow entrepreneurs to become employers rather than job seekers.
- v).Competitive advantage: Innovation helps entrepreneurs differentiate their businesses from competitors.

vi).Personal fulfillment: Entrepreneurs gain satisfaction from transforming ideas into successful ventures.

b). Government Agencies.

i).Economic growth: Startups contribute to Gross Domestic Product (GDP) through increased production and services.

ii).Employment generation: They reduce unemployment by creating direct and indirect jobs.

iii).Tax revenue: Profitable startups increase government revenue through taxes and business registrations.

iv).Industrial development: Innovative firms stimulate the growth of strategic industries and technology sectors.

v).Regional development: Startups encourage balanced economic development, including rural and underserved areas.

vi).Policy effectiveness: Government agencies use startup performance to assess and improve entrepreneurship and innovation policies.

c). Investors

i).High return potential: Innovative startups can provide substantial financial returns when successful.

ii).Portfolio diversification: Investing in startups spreads investment risks across different sectors.

iii).Access to emerging markets: Investors gain exposure to new technologies and growing industries.

iv).Long-term value creation: Successful startups can evolve into profitable companies with significant market value.

v).Social impact investing: Investors can support businesses that address environmental and social challenges while generating profits.

d). Researchers

i).Knowledge creation: Startups provide valuable data for entrepreneurship, innovation, and economic development research.

ii).Theory development: Researchers use startup experiences to test and refine business and innovation theories.

iii).Policy recommendations: Research findings help governments and institutions design effective entrepreneurship policies.

iv).Innovation studies: Startups serve as practical examples for studying technology adoption, commercialization, and competitiveness.

v).Academic contributions: Research on startups expands scholarly literature and supports evidence-based decision-making.

e). Policymakers

- i).Policy formulation: Startup performance provides evidence for developing entrepreneurship and innovation policies.
- ii).Economic planning: Policymakers use startup data to promote sustainable economic growth and industrial development.
- iii).Employment strategies: Startup growth informs policies aimed at reducing unemployment and poverty.
- iv).Investment promotion: Effective policies attract domestic and foreign investment into innovative sectors.
- v).Infrastructure development: Policymakers identify areas requiring improved infrastructure, digital connectivity, and business support services.
- vi).Monitoring and evaluation: Startup outcomes help assess the effectiveness of government programs and innovation initiatives.

Scope of the Study

The study focuses on innovative start-ups, their operations, challenges, opportunities, and contributions to economic development, with emphasis on Nigeria's entrepreneurial ecosystem

LITERATURE REVIEW

Concept of Innovative Start-Ups

Innovative start-ups are entrepreneurial ventures established to develop new products, services, technologies, or business models. These businesses are often technology-driven and growth-oriented. The Nigeria Start-Up Act 2022 defines a start-up as a company focused on innovation and digital technology products or processes. Innovative start-ups differ from traditional businesses because they emphasize creativity, scalability, technological advancement, and market disruption. The characteristics of innovative start-ups are (Kuratko, 2022; Shane and Venkataraman, 2019):

- 1. Innovation-Oriented- They introduce new ideas or improve existing products and services.
- 2. Scalability- They possess high growth potential and can expand rapidly.
- 3. Technology-Driven- Most innovative start-ups rely heavily on technology and digital platforms.
- 4. Risk-Taking- They operate in uncertain environments with high business risks.
- 5. Flexibility- Start-ups easily adapt to market changes and customer needs.
- 6. Problem-Solving Focus- They aim to solve social, economic, or technological problems.
- 7. Limited Resources- Most operate with constrained financial and human resources during early stages.

The types of innovative start-ups are (NITDA, 2024; Davila et al, 2018):

i).FinTech-Start-Ups

FinTech (Financial Technology) start-ups are newly established businesses that use digital technology to provide financial services in faster, cheaper, and more convenient ways. These start-

ups improve or replace traditional banking and financial systems through mobile apps, online platforms, artificial intelligence, block chain, and digital payment systems. The key features of financial technology include digital banking and mobile payments, online lending and crowd funding, Crypto currency and block chain services, automated investment platforms and financial inclusion services (Gans et al, 2019).The importance of financial technology is that it promotes cashless transactions, increases access to financial services, reduces banking costs and enhances financial inclusion for rural population. Examples include Pay stack, Flutter wave and Opay.

ii)HealthTech-Start-Ups

HealthTech (Health Technology) start-ups are businesses that use technology to improve healthcare delivery, medical services, patient management, and health monitoring. They combine healthcare with digital innovation to provide efficient and affordable medical solutions. The key features of health technology are telemedicine and virtual consultations, electronic medical records, health monitoring apps and wearable devices, AI-assisted diagnosis and online pharmacy services. Examples are mPharma and 54gene. The importance of health technology is that it improves access to healthcare, reduces hospital congestion, enhances disease monitoring and Supports remote healthcare services

iii).AgriTech-Start-Ups

AgriTech (Agricultural Technology) start-ups are businesses that apply modern technology to agriculture in order to improve farming productivity, food production, storage, and distribution. These start-ups help farmers make better decisions and increase agricultural efficiency. The key features of agricultural technology include smart irrigation systems, precision farming using drones and sensors, agricultural marketplaces, farm management software and climate and soil monitoring technologies. Examples are farmcrowdy and thriveAgric. The importance of agricultural technology is that it increases food production, reduces farming risks, improves market access for farmers and encourages sustainable agriculture

iv).EdTech-Start-Ups

EdTech (Educational Technology) start-ups are companies that use digital technology to improve teaching, learning, and educational management. They provide online learning platforms, virtual classrooms, and digital educational resources (World Bank, 2023). The key features of educational technology are e-learning platforms, virtual classrooms and video lessons, online testing and assessment, interactive learning tools and educational mobile applications. Examples are uLesson and Coursera. The importance of educational technology is that it expands access to education, encourages flexible learning, reduces educational costs and enhances digital literacy.

v).E-Commerce-Start-Ups

E-commerce start-ups are businesses that buy and sell goods or services through online platforms and digital channels. These businesses use websites, mobile apps, and digital payment systems to

conduct commercial transactions. The key features of e-commerce are online shopping platforms, digital payment integration, delivery and logistics systems, online customer support and digital marketing and advertising. Examples are Jumia and Konga. The importance of e-commerce is that it expands market reach, provides customer convenience, reduces operational costs and supports 24-hour business operations.

vi).GreenTech-Start-Ups

GreenTech (Green Technology) start-ups are businesses that develop environmentally friendly technologies and sustainable solutions aimed at reducing environmental damage and promoting conservation. They focus on renewable energy, waste management, recycling, and sustainable production. The key features of green technology are renewable energy solutions, solar and wind technologies, waste recycling systems, eco-friendly transportation and carbon emission reduction technologies. Examples are Lumos and Tesla. The importance of green technology is that it reduces environmental pollution, promotes sustainable development, encourages clean energy use and helps combat climate change.

Importance of Innovative Start-Ups.

The importance of innovative start-ups are state as follows (Adegbite et al, 2024; Autio et al, 2020):

1. Job Creation- Job creation refers to the process of generating new employment opportunities within an economy. It occurs when businesses expand, new enterprises emerge, and investments increase. Job creation helps reduce unemployment, improve living standards, and stimulate economic development.
2. Economic Growth- Economic growth is the increase in the production of goods and services in an economy over a specific period. It is commonly measured by the growth rate of Gross Domestic Product (GDP). Economic growth leads to higher incomes, improved living standards, and increased government revenue.
3. Technological Advancement- Technological advancement refers to the development and application of new technologies, tools, and innovations that improve productivity, efficiency, and quality of life. It enhances business operations, promotes industrial development, and drives economic progress.
4. Financial Inclusion- Financial inclusion is the provision of affordable and accessible financial services, such as banking, credit, insurance, and savings, to all individuals and businesses, especially those in underserved communities. It promotes economic participation and reduces poverty.
5. Increased Competition- Increased competition occurs when more businesses offer similar products or services in the market. Competition encourages innovation, improves product quality, reduces prices, and enhances customer satisfaction.
6. Poverty Reduction- Poverty reduction involves efforts aimed at improving the economic and social conditions of poor people. It can be achieved through employment opportunities, education, healthcare access, social welfare programs, and economic empowerment initiatives.

7. Attraction of Foreign Investment- Attraction of foreign investment refers to the ability of a country to encourage foreign individuals, companies, or governments to invest in its economy. Foreign investment brings capital, technology transfer, employment opportunities, and economic growth.

Challenges Facing Innovative Start-Ups.

According to Arican Development Bank (ADB) (2023) the challenges of innovative start-ups are:

1. Inadequate Funding- Inadequate funding refers to the insufficiency of financial resources required to start, operate, or expand a business or project. It limits growth, innovation, and the ability to achieve organizational goals.
2. Poor Infrastructure- Poor infrastructure refers to the lack of adequate physical facilities such as roads, electricity, water supply, transportation systems, and communication networks. It increases business costs, reduces productivity, and hinders economic development.
3. Regulatory Uncertainty- Regulatory uncertainty occurs when government policies, laws, and regulations are unclear, inconsistent, or frequently changed. This uncertainty discourages investment, increases business risks, and complicates long-term planning.
4. Market Competition- Market competition is the rivalry among businesses seeking to attract customers and increase market share. While competition promotes efficiency and innovation, excessive competition can reduce profitability and threaten weaker firms.
5. Limited Skilled Manpower- Limited skilled manpower refers to the shortage of workers with the necessary knowledge, expertise, and technical skills required for specific jobs. This shortage can reduce productivity, hinder innovation, and slow business growth.
6. Cybersecurity Risks- Cybersecurity risks are threats to computer systems, networks, and digital information from unauthorized access, cyberattacks, data breaches, and malware. These risks can lead to financial losses, reputational damage, and operational disruptions.
7. Economic Instability- Economic instability refers to fluctuations and uncertainties in an economy caused by factors such as inflation, unemployment, exchange rate volatility, recession, or political unrest. Economic instability affects business confidence, investment decisions, and overall economic performance.

Factors Influencing Start-Up Success.

The factors which influence the start-up success include (Kuratko, 2023; Andretch, 2021):

1. Access to Funding- Access to funding is the ability of a business to obtain financial resources from banks, investors, or other sources to support its operations and growth.
2. Quality Leadership and Management- Quality leadership and management involve effectively guiding, motivating, and coordinating organizational resources to achieve business objectives.
3. Innovation Capability- Innovation capability is the ability of an organization to develop new ideas, products, services, or processes that improve performance and competitiveness.
4. Strong Customer Relationship- Strong customer relationship refers to maintaining positive interactions with customers to build trust, loyalty, and long-term business success.
5. Market Demand- Market demand is the willingness and ability of consumers to purchase a product or service at a given price and time.

6. Government Support- Government support includes policies, incentives, grants, tax reliefs, and infrastructure provided by the government to encourage business growth and economic development.

7. Availability of Technology Infrastructure- Availability of technology infrastructure refers to access to essential technological facilities such as internet services, communication networks, software, and digital tools needed for business operations.

8. Skilled Workforce- A skilled workforce consists of employees who possess the knowledge, expertise, and competencies required to perform tasks efficiently and contribute to organizational success..

Entrepreneurial Ecosystem.

An entrepreneurial ecosystem refers to the network of interconnected individuals, institutions, organizations, policies, and resources that support the creation, growth, and sustainability of entrepreneurial ventures within a particular geographic area or economy. Just as a biological ecosystem consists of living organisms interacting with their environment, an entrepreneurial ecosystem consists of entrepreneurs, investors, government agencies, educational institutions, customers, and support organizations working together to promote business creation and innovation. According to entrepreneurship scholars (Eze and Nkamnebe, 2021), an entrepreneurial ecosystem creates an environment where entrepreneurs can easily access resources, knowledge, funding, markets, and support needed for business success. An entrepreneurial ecosystem can also be defined as a set of interconnected entrepreneurial actors, organizations, institutions, and processes that formally and informally combine to connect, mediate, and govern entrepreneurial performance within a local entrepreneurial environment. The components of an entrepreneurial ecosystem are (Adegbite et al, 2024);

1. Entrepreneurs- Entrepreneurs are the central actors in the ecosystem. They identify opportunities, take risks, and create businesses. Examples are small business owners, technology startup founders, social entrepreneurs and manufacturing entrepreneurs.

2. Government and Public Policies- Governments create favorable conditions through business registration policies, tax incentives, infrastructure development, access to grants and loans, entrepreneurship promotion programs. Examples in Nigeria are Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), Bank of Industry (BOI) and Nigerian Investment Promotion Commission (NIPC).

3. Financial Institutions- Access to finance is essential for business growth. The sources include Commercial banks, Venture capital firms, Angel investors, Microfinance banks and Crowd funding platforms.

4. Educational and Research Institutions- Universities and research centers provide entrepreneurial education, business training, research and innovation and skill development. Examples include Universities, Polytechnics and Entrepreneurship development centres

5. Business Support Organizations- These organizations provide advisory and support services. Examples are business incubators, accelerators, chambers of commerce and professional associations.

6. Markets and Customers- Businesses require customers and markets to survive. This includes Local markets, National markets, International markets and Digital marketplaces

7. Human Capital- Human capital refers to skilled and knowledgeable workers available to businesses. Examples are Engineers, Marketers, Accountants and IT professionals

8. Culture and Social Norms- A culture that encourages innovation, creativity, and risk-taking strengthens entrepreneurship. The characteristics include acceptance of failure as a learning process, innovation orientation and achievement motivation

Characteristics of a Strong Entrepreneurial Ecosystem

Eze and Nkamnebe (2021) opines that the characteristics of a strong entrepreneurial ecosystem are:

- i).Interconnectedness- Actors collaborate and share resources.
- ii).Innovation- New ideas and technologies are encouraged.
- iii).Accessibility- Entrepreneurs can easily access resources.
- iv).Sustainability- Businesses can survive and grow over time.
- v).Diversity- Different industries and business sectors coexist.

Importance of Entrepreneurial Ecosystems

Olpara (2019) states that entrepreneurial ecosystem has the following importance.

- 1. Job Creation- New businesses generate employment opportunities.
- 2. Economic Growth- Entrepreneurial activities increase productivity and output.
- 3. Innovation Promotion- Entrepreneurs introduce new products and services.
- 4. Poverty Reduction- Business creation improves income levels.
- 5. Wealth Creation- Entrepreneurship contributes to personal and national wealth.
- 6. Attraction of Investment- Strong ecosystems attract local and foreign investors.
- 7. Regional Development- Entrepreneurship stimulates development across regions.

Challenges of Entrepreneurial Ecosystems in Nigeria

Nambison (2017) states that entrepreneurial ecosystem in Nigeria has challenges such as

- i).Inadequate access to finance
- ii).Poor infrastructure
- iii).Unstable government policies
- iv).Multiple taxation
- v).High business risks
- vi).Limited technological support
- vii)Weak innovation systems

Economic Development.

Economic development is the process through which a country improves the economic, social, and political well-being of its citizens by increasing productivity, income levels, employment opportunities, and overall quality of life. It goes beyond economic growth. While economic growth focuses on increases in national output and income, economic development emphasizes

improvements in living standards, education, healthcare, poverty reduction, and social welfare. Economic development can also be defined as the sustained improvement in the economic and social conditions of a society resulting in higher standards of living, reduced poverty, increased employment, and improved human welfare (Eze and Nkamnebe, 2021). The objectives of economic development include the following:

1. Increase National Income- To raise the country's Gross Domestic Product (GDP).
2. Reduce Poverty- To improve the living conditions of citizens.
3. Create Employment- To provide productive jobs for the population.
4. Improve Living Standards- To increase access to housing, food, healthcare, and education.
5. Promote Industrialization- To encourage manufacturing and technological advancement.
6. Ensure Sustainable Development- To balance economic growth with environmental protection.

Indicators of Economic Development

According to Eze and Nkamnebe,(2021), the indicators of economic development include the following;

1. Gross Domestic Product (GDP)- Measures the total value of goods and services produced within a country.
2. Per Capita Income- Average income earned per person.
3. Employment Level- Higher employment indicates better economic conditions.
4. Literacy Rate- Measures educational attainment.
5. Life Expectancy- Reflects healthcare quality and living conditions.
6. Human Development Index (HDI)- A composite measure of income, education and health
7. Poverty Rate- Lower poverty levels indicate greater development.

Characteristics of Economic Development

The characteristics of economic development are as follows (Okpara, 2019):

- i).Structural Transformation- Movement from agriculture-based activities to industrial and service sectors.
- ii).Technological Advancement- Increased use of modern technology.
- iii).Urbanization- Growth of cities and industrial centers.
- iv).Increased Productivity- More output produced with available resources.
- v).Improved Infrastructure- Better roads, electricity, communication, and transportation.

Factors Promoting Economic Development

Okpara (2019) opines that economic development can be promoted by the following factors;

1. Human Capital Development- Investment in education and training.
2. Entrepreneurship- Creation of innovative businesses.
3. Technological Innovation- Improved production methods and efficiency.
4. Capital Formation- Investment in machinery, factories, and infrastructure.
5. Political Stability- Stable governance encourages investment.
6. Natural Resources- Effective utilization of available resources.

7. Good Governance- Transparency and accountability in public administration.

Furthermore, he added that the importance of economic development include the following; Employment Generation, Creates jobs and reduces unemployment, Poverty Alleviation, Raises income and living standards, Improved Healthcare, Enhances citizens' health outcomes, Better Education, Increases literacy and skills acquisition, Increased Government Revenue, Provides funds for public services, Industrial Growth, Promotes manufacturing and economic diversification, National Competitiveness and Improves a country's position in the global economy.

Relationship between Entrepreneurial Ecosystem and Economic Development

A strong entrepreneurial ecosystem contributes significantly to economic development by (Okpara, 2019):

- i).Encouraging business creation.
- ii).Generating employment opportunities.
- iii).Promoting innovation and technological advancement.
- iv).Attracting domestic and foreign investment.
- v).Increasing productivity and national income.
- vi).Reducing poverty and improving living standards.
- vii).Enhancing regional and national economic growth.

Thus, entrepreneurial ecosystems serve as a catalyst for sustainable economic development in both developing and developed economies.

Theoretical Framework

Schumpeter's Innovation Theory:

Schumpeter's Innovation Theory was developed by the Austrian economist and political scientist Joseph Alois Schumpeter (1883–1950). The theory emphasizes that innovation is the primary driver of economic development, entrepreneurship, and business growth. Schumpeter argued that economic progress occurs when entrepreneurs introduce new innovations that disrupt existing market structures and create new opportunities. According to Schumpeter, entrepreneurs are not merely business owners; they are innovators who combine resources in new ways to create value and stimulate economic development. Innovation refers to the introduction of new ideas, products, processes, markets, or organizational methods that improve efficiency, productivity, and competitiveness. Schumpeter viewed innovation as the force that transforms economies from a state of equilibrium to a state of growth and development. The theory is based on the following assumptions:

- i).Economic development is driven by innovation.
- ii).Entrepreneurs are agents of change.
- iii).Innovation creates temporary monopoly profits.
- iv).Economic growth occurs through continuous cycles of innovation.
- v).Competition results from innovation rather than price alone.
- vi).Technological advancement is a major source of economic progress.

Schumpeter identified five major forms of innovation:

1. Introduction of New Products- This involves creating goods or services that are entirely new or significantly improved. Examples are introduction of smartphones, electric vehicles, online banking services. Benefits are that it meets emerging customer needs, creates competitive advantage and generates new revenue streams.
2. Introduction of New Methods of Production- This refers to adopting new techniques, technologies, or processes that increase efficiency. Examples are automation in manufacturing, artificial Intelligence in customer service, activity-Based Costing systems in production firms. The benefits are that it reduces production costs, improves quality and enhances productivity.
3. Opening New Markets- Entrepreneurs may discover or create new markets where products have not previously been sold. Examples are Nigerian firms exporting products to international markets and Expansion of local businesses through e-commerce platforms. Benefits are that it increases sales volume, expands customer base and enhances business growth.
4. Discovery of New Sources of Raw Materials- Businesses may find alternative sources of inputs that reduce costs or improve quality. Examples are local sourcing of agricultural materials and renewable energy resources.
5. Creation of New Forms of Organization- Innovation may involve introducing new organizational structures or management systems. Examples are remote working arrangements, digital business models and strategic alliances and partnerships. The benefits are that it improves operational efficiency, enhances coordination and supports organizational growth.

Entrepreneurship and Innovation

Schumpeter considered entrepreneurs as the key drivers of economic development because they identify opportunities, introduce innovations, take calculated risks, organize resources effectively and create employment opportunities. According to the theory, entrepreneurial success depends largely on the ability to innovate rather than merely owning capital.

The Concept of Creative Destruction

One of Schumpeter's most influential ideas is Creative Destruction. Creative destruction refers to the process whereby new innovations replace outdated products, technologies, and business models. Examples

Old Technology	New Innovation
Typewriters	Computers
CDs/DVDs	Streaming Platforms
Traditional Banking	Digital Banking
Physical Stores Only	E-commerce

Through creative destruction, inefficient businesses disappear while innovative firms emerge and grow.

Innovation and Economic Development

Schumpeter argued that innovation contributes to economic development by:

1. Increasing Productivity- New technologies enable firms to produce more output with fewer resources.
2. Creating Employment- Innovative industries generate new jobs and career opportunities.
3. Raising Living Standards- Improved products and services enhance the quality of life.
4. Stimulating Investment- Innovation attracts investors seeking profitable opportunities.
5. Enhancing National Competitiveness- Countries that encourage innovation tend to achieve higher economic growth.

Relevance of Schumpeter's Innovation Theory to Modern Business.

The theory remains highly relevant today because organizations rely on innovation for survival and competitiveness. The applications of this theory include Technology entrepreneurship, Strategic marketing, Product development, Digital transformation, Manufacturing innovation, Small business growth and Research and development activities. Companies such as Apple Inc., Tesla, Inc., and Amazon.com, Inc. have achieved success largely through continuous innovation. Criticisms of Schumpeter's Innovation Theory.

Despite its importance, the theory has some limitations which include:

- i).Overemphasizes innovation as the sole source of development.
- ii).Ignores environmental and institutional factors.
- iii).Assumes all entrepreneurs are innovators.
- iv).Some innovations may fail commercially.
- v).Large firms may innovate more effectively than individual entrepreneurs.

The strengths of the theory is that it explains the role of entrepreneurship in economic growth. highlights innovation as a competitive tool. supports technological advancement. applies to both developed and developing economies and provides a framework for understanding business transformation.

Empirical Review

Studies indicate that innovative start-ups significantly influence economic growth and digital transformation.

Research on Nigerian ICT hubs found that innovation activities in software and mobile applications create employment and technological opportunities.

Another study identified opportunity recognition, team formation, and market experimentation as important drivers of start-up emergence in Nigeria.

Research also shows that fintech start-ups contribute to financial inclusion but face funding and regulatory challenges.

RESEARCH METHODOLOGY

This study adopts a descriptive survey research design. The design is appropriate because it enables the researcher to collect data from innovative start-up founders, managers, investors, incubator

operators, and entrepreneurship support organizations regarding the contribution of innovative start-ups to Nigeria's economic development and the role of the entrepreneurial ecosystem in fostering innovation and growth. The study covers Nigeria's entrepreneurial ecosystem, focusing on major innovation hubs such as Lagos, Abuja, Port Harcourt, Enugu, Kano, and Ibadan, where most innovative start-ups operate. Nigeria remains the leading startup ecosystem in West Africa, with over 1,400 active startups according to recent ecosystem rankings (NWODO). The population comprises founders, managers, and key personnel of innovative start-ups operating in Nigeria. Using Startup Blink's ecosystem database, Nigeria has approximately **1,475 active start-ups**. This figure is adopted as the study population. Therefore the Population (N) = 1,475 innovative start-ups. The sample size was determined using the Taro Yamane (1967) formula:

$$n = \frac{N}{1 + N(e)^2} = \frac{1475}{1 + 1475(0.05)^2} = 315$$

Where:

- n = Sample size
- N = Population size (1,475)
- e = Level of significance (0.05)

$$n = \frac{1475}{1 + 1475(0.05)^2} = 315$$

$$n = \frac{1475}{1 + 1475(0.0025)} = 315$$

$$n = \frac{1475}{4.6875} = 314.67 \approx 315$$

Approximately: n=315

Sample Size = 315 respondents

A stratified random sampling technique was employed and the population was stratified according to Nigeria's six geopolitical zones, and states in each zone

Zone	Sample Allocation
North Central	52: Kpgi – 32, Benue - 20
North East	45: Adamawa- 20, Bauchi - 25
North West	48: Kaduna-20, Kano -28
South East	55: Abia -30, Anambra -25
South South	55: Delta -20, Rivers -25
South West	60: Lagos- 40, Oyo -20
Total	315

The sources of data were both Primary data which involved structured questionnaire and interview with startup founders and ecosystem stakeholders as well as secondary data which consists of journal articles, government reports, startup ecosystem reports, conference proceedings and books and publications on entrepreneurship and economic development. The principal instrument used for data collection was a structured questionnaire titled: "Innovative Start-Ups and Economic Development Questionnaire (ISEDQ)." The questionnaire was divided into five sections: Section A: Demographic Information, Section B: Innovative Start-Up Activities, Section C: Entrepreneurial Ecosystem Factors, Section D: Economic Development Indicators and Section E: Challenges and Policy Recommendations. The administration and return of questionnaire was aided by twelve (12) trained research assistants. Two research assistants were assigned to each state of the zones respectively. The validity of instrument was ascertained by subjecting the questionnaire to face validity and content validity where the experts in Entrepreneurship, Management, and Research Methodology assessed the instrument and made necessary corrections. The reliability of instrument was established using the Cronbach Alpha method and a reliability coefficient value of 0.75 was obtained and considered acceptable. The study employed both descriptive statistics (frequency tables, percentages) and inferential statistics using simple linear regression analysis for the stated hypotheses.

FINDINGS AND DISCUSSION

This section presents the findings of the study based on the responses obtained from 315 respondents across key personnel of innovative start-ups operating in Nigeria. The findings are organized according to concept and characteristics of innovative start-ups, contributions of innovative start-ups to economic development, challenges facing innovative start-ups, technological adoption of innovative start-ups, economic development indicators of innovative start-ups and the regression results used to test the study hypotheses.

Concept and Characteristics of Innovative Start-Ups.

This subsection presents respondents' views on the Concept and Characteristics of Innovative Start-Ups. The questionnaire items focused on technology-driven, competitiveness, quick adaptation to environmental changes and creative problem-solving.

Table 1: Respondents' Responses on Concept and Characteristics of Innovative start-ups

S/N	Statement	SA	A	N	D	SD	Total
1	Most innovative start-ups are technology-driven	80 (25%)	220 (70%)	-	15 (5%)	-	315 (100%)
2	Innovation is essential for start-up competitiveness	100 (32%)	200 (63%)	15 (5%)	-	-	315 (100%)
3	Innovative start-ups adapt quickly to environmental changes	50 (17%)	230 (73%)	-	35 (10%)	-	315 (100%)
4	Creative problem-solving is a major feature of innovative start-ups.	35 (11%)	250 (79%)	15 (5%)	-	15 (5%)	315 (100%)

In table 1, the emphasis is on technology-driven which shows that 80 respondents representing 25% strongly agreed, while 220 respondents representing 70% agreed. This gives a combined agreement level of 95%, meaning that the respondents agreed that most innovative start-ups are technology-driven while only 5% of the respondents disagreed. The results also show that 32% of the respondents strongly agreed and 63% agreed that innovation is essential for start-ups competitiveness, giving a combined agreement level of 95% while only 5% of the respondents remained neutral at the instance of the research. Regarding the respondents' responses on quick adaptation to environmental changes, 17% strongly agreed and 73% agreed, giving a total agreement level of 90%. while a small proportion of 10% disagreed suggesting differences in the rate of adaptation to environmental changes by innovative start-ups. Similarly, 11% strongly agreed and 79% agreed that creative problem-solving is a major feature of innovative start-up, giving a total agreement level of 90% while only 5% of the respondents remained neutral at the instance of the research and 5% of the respondents strongly disagreed. The high levels of agreement across the four questionnaire items suggest the characteristic nature of the innovative start-ups.

Innovative start-ups contribution to economic development.

This subsection presents respondents' views on the Innovative start-ups contribution to economic development. The questionnaire items focused on creation of employment opportunities, technological advancement, national economic growth and reduction in poverty and unemployment.

Table 2: Respondents' Responses on innovative start-ups contribution to economic development

S/N	Statement	SA	A	N	D	SD	Total
1	Innovative start-ups create employment opportunities	85 (27%)	220 (70%)	-	10 (3%)	-	315 (100%)
2	Innovative start-ups contribute to technological advancement	100 (31%)	210 (67%)	5 (2%)	-	-	315 (100%)
3	Innovative businesses contribute to national economic growth	70 (22%)	230 (73%)	-	15 (5%)	-	315 (100%)
4	Start-Ups help reduce poverty and unemployment.	50 (16%)	250 (79%)	15 (5%)	-	-	315 (100%)

In table 2, the emphasis is on the creation of employment opportunities which shows that 85 respondents representing 27% strongly agreed, while 220 respondents representing 70% agreed. This gives a combined agreement level of 97%, meaning that the respondents agreed that most innovative start-ups create employment opportunities while only 3% of the respondents disagreed. The results also show that 31% of the respondents strongly agreed and 67% agreed that innovative start-ups contribute to technological advancement, giving a combined agreement level of 98% while only 2% of the respondents remained neutral at the instance of the research. Regarding the respondents' responses on start-ups contribution to national economic growth, 22% strongly agreed and 73% agreed, giving a total agreement level of 95%. while a small proportion of 5% disagreed suggesting some weaknesses in the formation and operation of some innovative start-ups. Similarly, 16% strongly agreed and 79% agreed that innovative start-ups help reduce poverty and unemployment, giving a total agreement level of 95% while only 5% of the respondents remained neutral at the instance of the research. The high levels of agreement across the four questionnaire items suggest that creation of employment opportunities, technological advancement, national economic growth and reduction in poverty and unemployment are major factors that contribute to economic development.

Challenges Facing Innovative Start-Ups.

This subsection presents respondents' views on the challenges facing Innovative Start-Ups. The questionnaire items focused on lack of adequate funding, high operational costs, limited access to skilled manpower and unstable government policies.

Table 3: Respondents' Responses on Challenges facing Innovative start-ups

S/N	Statement	SA	A	N	D	SD	Total
1	Lack of adequate funding affects start-ups growth	90 (29%)	225 (71%)	-	-	-	315 (100%)
2	High operational costs affect start-ups sustainability	110 (35%)	205 (65%)	-	-	-	315 (100%)
3	Limited access to skilled manpower affects innovation	55 (17%)	230 (73%)	30 (10%)	-	-	315 (100%)
4	Unstable government policies hinder innovative businesses.	50 (16%)	250 (79%)	15 (5%)	-	-	315 (100%)
				-			

In table 3, with respect to lack of adequate funding shows that 90 respondents representing 29% strongly agreed, while 225 respondents representing 71% agreed. This gives a combined agreement level of 100%, meaning that the respondents agreed that lack of adequate funding affects start-ups growth. The results also show that 35% of the respondents strongly agreed and 65% agreed that high operational costs affect start-ups sustainability, giving a combined agreement level of 100%. Regarding the respondents' responses on limited access to skilled manpower, 17% strongly agreed and 73% agreed, giving a total agreement level of 90%.while a small proportion of 10% disagreed suggesting that some innovative start-ups lack competence and expertise in their workforce. Similarly, 16% strongly agreed and 79% agreed that unstable government policies hinder innovative businesses, giving a total agreement level of 95% while only 5% of the respondents remained neutral at the instance of the research. The high levels of agreement across the four questionnaire items suggest that lack of adequate funding, high operational costs, limited access to skilled manpower and unstable government policies are critical challenges facing innovative start-ups.

Technological Innovation of Innovative start-ups.

This subsection presents respondents' views on the technological adoption of Innovative Start-Ups. The questionnaire items focused on enhancement of competitive advantage, operational efficiency, business growth and market expansion.

Table 4: Respondents' Responses on technological adoption of Innovative start-ups

S/N	Statement	SA	A	N	D	SD	Total
1	Innovation enhances our competitive advantage	80 (25%)	230 (73%)	-	5 (2%)	-	315 (100%)
2	Innovative practices increase market expansion	100 (32%)	200 (63%)	15 (5%)	-	-	315 (100%)
3	Technology adoption improves operational efficiency	70 (22%)	240 (76%)	-	5 (2%)	-	315 (100%)
4	Research and development drive business growth.	35 (11%)	250 (79%)	15 (5%)	-	15 (5%)	315 (100%)

Table 4 emphasizes the enhancement of competitive advantage which shows that 80 respondents representing 25% strongly agreed, while 230 respondents representing 73% agreed. This gives a combined agreement level of 98% while only 2% of the respondents disagreed meaning that the respondents agreed that most innovative start-ups are technology-driven. The results also show that 32% of the respondents strongly agreed and 63% agreed that innovative practices increase market expansion, giving a combined agreement level of 95% while only 5% of the respondents remained neutral at the instance of the research. Regarding the respondents' responses on improvement of operational efficiency, 22% strongly agreed and 76% agreed, giving a total agreement level of 98%.while a small proportion of 2% disagreed suggesting that innovative start-ups are sustained with technology adoption. Similarly, 11% strongly agreed and 79% agreed that research and development drive business growth, giving a total agreement level of 90% while only 5% of the respondents remained neutral at the instance of the research and 5% of the respondents strongly disagreed. The high levels of agreement across the four questionnaire items suggest the importance of technology adoption by innovative start-ups.

Economic Development Indicators of Innovative Start-Ups.

This subsection presents respondents' views on the economic indicators of Innovative Start-Ups. The questionnaire items focused on contribution to job creation, contribution to poverty reduction, improvement in income generation and fostering industrial development.

Table 5: Respondents' Responses on Economic development of Innovative start-ups

S/N	Statement	SA	A	N	D	SD	Total
1	Innovative start-ups contribute to job creation.	100 (32%)	215 (68%)	-	-	-	315 (100%)
2	Innovative businesses foster industrial development.	110 (35%)	205 (65%)	-	-	-	315 (100%)
3	Start-ups contribute to poverty reduction.	85 (27%)	200 (63%)	30 (10%)	-	-	315 (100%)
4	Start-ups improve income generation.	60 (16%)	240 (79%)	15 (5%)	-	-	315 (100%)

In table 5, with respect to job creation shows that 100 respondents representing 32% strongly agreed, while 215 respondents representing 68% agreed. This gives a combined agreement level of 100%, meaning that the respondents agreed that innovative start-ups contribute to job creation. The results also show that 35% of the respondents strongly agreed and 65% agreed that innovative businesses foster industrial development, giving a combined agreement level of 100%. Regarding the respondents' responses on poverty reduction, 27% strongly agreed and 63% agreed, giving a total agreement level of 90%.while a small proportion of 10% remained neutral at the instance of the research. Similarly, 16% strongly agreed and 79% agreed that start-ups improve income generation, giving a total agreement level of 95% while only 5% of the respondents remained neutral at the instance of the research. The high levels of agreement across the four questionnaire items suggest that job creation, industrial development, poverty reduction and improvement in income generation are key performance economic development indicators achievable by innovative start-ups.

Hypotheses

This section presents the regression results used to test the three stated hypotheses of the study. The hypotheses examined the effect of innovative start-ups and on economic development, access to finance on innovative start-ups growth and technological innovation on start-ups performance. The results are summarized in Table 6.

Table 6: Summary of Regression Results for Test of Hypotheses

ypothesis	Predictor Variable	Depende nt Variable	Coeffici ent	Std. Err or	t- value	F- statist ic	R	R²	Decisi on
H ₀₁ : Innovative start-ups do not significantly contribute to economic developme nt.	Innovative start-ups	Economi c developm ent	0.702	0.297	3.235**	35.210	0.646	0.417	Reject ed
H ₀₂ : Technolog ical innovation has no significant effect on	Technolog ical Innovation	Start-ups performa nce	0.802	0.217	3.335**	36.230	0.746	0.556	Reject ed

start-ups performan ce.									
H ₀₃ :	Access to	Innovativ	0.816	0.24	3.410	36.36	0.82	0.67	Reject
Access to	finance	e start-		4	**	1	0	2	ed
finance		ups							
does not		growth							
significant									
ly									
influence									
innovative									
start-ups									
growth.									

Table 6 shows that innovative start-up has a positive coefficient of 0.702 and a t-value of 3.235, showing that practices such as creation of employment opportunities, contribution to technological advancement and national economic growth as well as reduction in poverty and unemployment significantly improve economic development. The R value of 0.646 indicates a positive relationship, while the R² value of 0.417 shows that innovative start-up explains 41.7% of the variation in economic development. Technology innovation has a coefficient of 0.802 and a t-value of 3.335, indicating that enhancement of competitive advantage, improvement on operational efficiency, increase in business growth and market expansion significantly improve start-up performance. Its R² value of 0.556 means that technology innovation explains 55.6% of the variation in start-ups performance. Access to finance has the strongest explanatory power, with a coefficient of 0.816, a t-value of 3.410, and an R² value of 0.672, which explains 67.2% of the variation in innovative start-up growth that is accounted for by access to finance. Since all the t-values are significant at the 5% level and the F-statistics confirm that the regression models are statistically meaningful, all three null hypotheses are rejected. Therefore, innovative start-ups, technological innovation and access to finance have significant positive effects on economic development, innovative start-ups growth and performance respectively.

Summary

The study examined innovative start-ups, their characteristics, contributions, challenges, and growth strategies. Innovative start-ups are essential drivers of economic transformation and technological development. Despite their contributions, they face serious operational challenges that limit sustainability.

CONCLUSION

Schumpeter's Innovation Theory argues that innovation is the engine of economic development and entrepreneurship. Entrepreneurs create economic progress by introducing new products, production methods, markets, sources of raw materials, and organizational structures. Through the process of creative destruction, innovation continuously transforms industries, improves productivity, and drives long-term economic growth. The theory remains one of the most influential frameworks for understanding entrepreneurship, business success, and economic development in the modern world. Innovative start-ups are important instruments for economic diversification, digital transformation, and employment generation. Their success depends on access to finance, innovation capability, supportive policies, and entrepreneurial competence. Strengthening Nigeria's entrepreneurial ecosystem will enhance the growth and sustainability of innovative start-ups.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made;

- i).Government should provide favorable policies and tax incentives for start-ups.
- ii).Financial institutions should improve access to entrepreneurial financing.
- iii).Infrastructure such as electricity and internet services should be improved.
- iv).Entrepreneurship education should be strengthened in schools and universities.
- v).Start-ups should invest in research, innovation, and digital security.
- vi).Public-private partnerships should support innovation hubs and incubators.
- vii).Venture capital and angel investment networks should be expanded.

REFERENCES

- Adegbite, S. A., Ilori, M. O., Irefin, I. A., Abereijo, I. O., & Aderemi, H. O. (2024). "Evaluation of the impact of entrepreneurial characteristics on the performance of small scale manufacturing industries in Nigeria." *Journal of Asia Entrepreneurship and Sustainability*, 3(1), 1–22.
- African Development Bank (2022). *African economic outlook: Supporting climate resilience and innovative entrepreneurship*. Abidjan: AfDB.
- Audretsch, D. B. (2021). "Entrepreneurship capital and economic growth." *Oxford Review of Economic Policy*, 23(1), 63–78. .
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2020). "Effects of age at entry, knowledge intensity, and imitability on international growth." *Academy of Management Journal*, 43(5), 909–924.
- Baumol, W. J. (2010). "The microtheory of innovative entrepreneurship." *Princeton University Press*.
- Christensen, C. M. (2020). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.

- Davila, A., Foster, G., & Gupta, M. (2018). "Venture capital financing and the growth of startup firms." *Journal of Business Venturing*, 18(6), 689–708.
- Eze, T. C., & Nkamnebe, A. D. (2021). "Innovation capability and startup performance in Nigeria." *Nigerian Journal of Management Sciences*, 22(2), 55–70.
- Gans, J. S., Stern, S., & Wu, J. (2019). "Foundations of entrepreneurial strategy." *Strategic Management Journal*, 40(5), 736–756.
- Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2020). *Entrepreneurship* (11th ed.). New York: McGraw-Hill Education
- Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2023). *Entrepreneurship* (12th ed.). New York: McGraw-Hill.
- Kuratko, D. F. (2023). *Entrepreneurship: Theory, process, and practice* (10th ed.). Boston, MA: Cengage Learning.
- Kuratko, D. F. (2022). *Entrepreneurship: Theory, Process, and Practice* (12th ed.). Boston: Cengage Learning
- Lumpkin, G. T., & Dess, G. G. (2018). "Clarifying the entrepreneurial orientation construct and linking it to performance." *Academy of Management Review*, 21(1), 135–172.
- Nambisan, S. (2017). "Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship." *Entrepreneurship Theory and Practice*, 41(6), 1029–1055.
- National Information Technology Development Agency (2024). *Nigeria startup ecosystem report*. Abuja: NITDA Publications.
- Okpara, J. O. (2019). "Factors constraining the growth and survival of SMEs in Nigeria." *Management Research Review*, 34(2), 156–171.
- Osterwalder, A., & Pigneur, Y. (2019). *Business model generation*. Hoboken, NJ: John Wiley & Sons.
- Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- Schumpeter, J. A. (1942). *Capitalism, Socialism and Democracy*. New York: Harper & Brothers.
- Shane, S., & Venkataraman, S. (2019). "The promise of entrepreneurship as a field of research." *Academy of Management Review*, 25(1), 217–226.
- Small and Medium Enterprises Development Agency of Nigeria (2023). *SME and startup development report in Nigeria*. Abuja: SMEDAN.
- Tidd, J., & Bessant, J. (2021). *Managing innovation: Integrating technological, market and organizational change* (7th ed.). Hoboken, NJ: Wiley.
- World Bank (2023). *Africa's pulse: Innovation and digital transformation in Africa*. Washington, DC: World Bank Publications.