

**TECHNOLOGICAL BASED CORPORATE SOCIAL RESPONSIBILITIES AMONG
TELECOMMUNICATION FIRMS AND THE ENTREPRENEURIAL
ECOSYSTEM BUILDING**

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Abstract

The telecommunications sector in Nigeria has been at the forefront of this convergence in recent years, utilizing technical breakthroughs to propel important projects and support the expansion of the entrepreneurial ecosystem in the nation. The extent to which digital inclusion duty affects ecosystem formation, despite the need for it, is yet unknown. The main goal is to investigate how digital literacy and responsibility affect the development of an entrepreneurial environment. The population of the study is the clients of the telecom enterprises in Kwara State. A mixture of observation and survey was used as the methodology for this study, and a questionnaire functioned as the tool for gathering data. The data demonstrated that the majority of digital literacy duties had a favorable and substantial influence on EEB. However, it was shown that one particular component of digital literacy had a detrimental effect on EEB. It was determined that responsibilities for digital inclusion have a substantial and advantageous influence on developing entrepreneurial ecosystems. To increase access to technology and the internet, the report advises telecommunications companies to invest in growing digital infrastructure, particularly in underserved regions. This will promote broad involvement in the entrepreneurial ecosystem and help close the digital gap.

Keywords: Digital, Integration, Entrepreneurial, Ecosystem, Building, Responsibility

Introduction

Global industries are now focusing on digital integration and entrepreneurship. The telecommunications sector in Nigeria has been a major force in driving digital integration and entrepreneurship within the country, utilizing technical breakthroughs to propel important projects and support the expansion of the entrepreneurial ecosystem Nigeria, the most populous country in Africa and one of its wealthiest economies, has seen an astounding upsurge in technology innovation and uptake.

The telecommunications sector has been a major driver of this shift, connecting previously unconnected communities, advancing digital literacy, and encouraging economic growth. The industry has generated previously unheard-of prospects for the formation of new firms and the empowerment of local entrepreneurs thanks to the widespread proliferation of mobile devices and the growing penetration of internet services. These businesses are continuing to gain from the developing technology landscape, but they are also becoming more aware of their need to give back to the communities they serve. Telecommunications companies actively contribute to social welfare and inclusive growth through programs including digital skills training, access to educational resources, healthcare support, and environmental sustainability measures.

In parallel, Nigeria's entrepreneurial scene has seen a tremendous upsurge. The emergence of a vibrant ecosystem for startups and small enterprises is the result of the confluence of technical innovation, information availability, and rising support from both governmental and non-governmental agencies. With their advanced technology and wide-ranging networks, telecommunications corporations have a special role to play in promoting this ecosystem. These businesses support the development of regional startups and entrepreneurs by offering forums for cooperation, funding possibilities, and mentorship, eventually promoting employment creation. Business organizations in Nigeria's telecommunications industry face formidable obstacles in the country's dynamic and fiercely competitive business climate, which is characterized by fierce competition and market volatility. Due to these difficulties, businesses have had to shut down, and those that are still operating are fighting tooth and nail to stay afloat (Obiekwe & Nwaeke, 2019).

Organizations in the Nigerian telecommunications sector are under increasing pressure from stakeholders to demonstrate social accountability and take part in activities that benefit society (Obiekwe & Nwaeke, 2019; Aluko et al., 2004). This is in reaction to growing stakeholder expectations. Corporate social responsibility (CSR) has become a strategic tool for businesses to win over stakeholders, improve their corporate image, retain current customers, gain new ones, and recruit a highly skilled and competent workforce—all of which directly or indirectly improve organizational performance. Organizations and people both have a social responsibility toward the neighborhood and the environment. It's vital to strike a balance between social security, environmental conservation, and economic progress. Social responsibility, business transparency, corporate citizenship, responsible businesses, sustainable enterprises, or corporate social outcomes are some of the labels used to describe corporate social responsibility. It includes self-regulation in a variety of fields, such as business, politics, the economy, and the media. The growing emphasis Nigerian telecom firms like MTN, Glo, Airtel, and Etisalat are placing on digital integration and how it affects the development of the

entrepreneurial ecosystem serves as the driving force for this study. Increased access to mobile internet and digital platforms will lead to higher rates of new business creation. These businesses have been actively adopting CSR activities with a focus on harnessing technology for good social impact because they realize the transformative potential of technology in addressing societal concerns.

A greater focus is being placed on digital inclusion in order to guarantee that all people and groups have equitable access to information and communication technologies as a result of the information society's rapid development. Digital inclusion has been promoted by a number of international organizations, including the G7 and the European Forum for the Information Society, as a way to bring about a "second Renaissance" characterized by innovation, scientific advancement, cultural growth, and social togetherness. However, despite the push for digital inclusion, the extent to which digital inclusion responsibility influences ecosystem building remains uncertain. Ecosystem building involves fostering an environment where technology, innovation, and diverse stakeholders converge to create synergistic and sustainable digital ecosystems that drive economic growth and social progress. Hence, the study examines the effect of technologically driven social responsibility by telecoms on entrepreneurial ecosystem building.

Literature Review

Technology integration into CSR programs and practices is the idea behind technology-driven corporate social responsibility (CSR) (Nhamo, Nhemachena, & Nhamo, 2020). It acknowledges that technology has the potential to be an effective instrument for tackling the social, environmental, and economic problems that face organizations and society. Technology-driven CSR embraces cutting-edge technologies and digital platforms to make a positive social effect, going beyond conventional charity initiatives. (Wael, 2014). Fundamentally, technology-driven CSR seeks to use technological breakthroughs to increase the efficacy, efficiency, and scope of CSR programs (Singh & Sahadev, 2021). Technology-driven CSR is indeed about using technological breakthroughs to enhance existing CSR programs (Gao, Wang, & Liang, 2019).

An organization's operations and culture must be smoothly integrated with digital technology and strategies as part of a dynamic process called "digital integration." It concentrates on building a unified and integrated digital ecosystem that cuts across several organizational roles and departments, going beyond the simple adoption of individual technologies. The idea of digital transformation lies at the core of digital integration. Traditional business processes and models are reimaged to leverage digital technologies for improved efficiency, enhanced customer experiences, and new business opportunities (Acheampong, Abaidoo, Mensah, & Ofori, 2021). This transformation entails the harmonious integration of data from various sources and systems, allowing for real-time insights and data-driven decision-making.

The capacity of digital integration to promote cross-functional collaboration is one of its main advantages. Organizations may improve goal coordination and alignment by dismantling silos and fostering communication across various teams and departments. This teamwork-based strategy promotes creativity and increases productivity. A customer-centric strategy is strongly emphasized by digital integration as well. Organizations may get a comprehensive understanding of the requirements and preferences of their consumers by combining data from numerous client touchpoints. (Thompson, & Cumberbatch, 2019).

According to the National Digital Inclusion Alliance (2017), "digital inclusion" describes the broad initiatives made to ensure that all people and communities, especially the most disadvantaged, have access to and successfully use Information and Communication Technologies (ICTs). Additionally, to assuring access to appropriate digital devices, training in digital skills, technical assistance, and pertinent material and applications, it entails providing dependable internet connectivity. The aim is to enable people to interact, engage actively, and be self-sufficient in the digital environment.

Digital inclusion includes the actual policies and measures aimed at bridging the digital divide and promoting digital literacy, as opposed to digital literacy, which focuses on the skills needed once access is available and the digital divide, which refers to the gap between those with and without internet access (Dhanaraj et al, 2020).

The need of digital inclusion has come to light, particularly in the wake of the COVID-19 epidemic, which forced millions of people to rely on the internet for daily tasks like distant work and education. The severe digital disparities and disadvantages that have remained have been highlighted by the epidemic. These problems are being actively addressed by policymakers, media outlets, and internet service providers as they look for solutions to give underprivileged communities access to the internet at reasonable prices.

According to Chowdhury (2018), digital literacy today comprises a wide range of sophisticated cognitive, physical, social, and emotional abilities necessary for efficient functioning in digital contexts. It is no longer only about knowing how to utilize digital tools and software. This article offers a comprehensive and sophisticated conceptual framework for digital literacy that takes into account a number of factors that affect users' competence in the digital environment. Understanding and conducting a critical analysis of visual material in various digital media is photo-visual literacy, a crucial component of digital literacy. As people face a growing amount of visual information in the digital era, academics have underlined the importance of this talent (Thompson, & Cumberbatch, 2019).

Techno-ethics responsibility encompasses the ethical considerations involved in the creation, implementation, and use of technology. It calls upon individuals, organizations, and policymakers to reflect on the potential ethical implications and impacts of technological advancements. (Acheampong, et al, 2021). The main goal is to make sure that technology supports wellbeing, upholds fundamental human rights, and is consistent with human values. Ethical design and development are at the core of techno-ethics duty. Ethical issues should be incorporated into technology design from the very beginning. To design technology that is inclusive, egalitarian, and preserves human dignity, it is necessary to address possible biases, discriminatory behaviors, and social effects.

Additionally, the need of digital inclusion and accessibility is emphasized by techno-ethical responsibility. No matter what their origins or skills, everyone should have access to technology on an equitable basis. One of the most important facets of techno-ethical responsibility is bridging the digital gap and advancing universal accessibility. Robotics and automation are included in the scope of techno-ethical responsibility. It requires individuals and organizations to consider the impact of automation on the workforce and society at large. Responsible automation practices prioritize human well-being and social harmony (Jobber & Ellis, 2018)

Entrepreneurship Ecosystem Building (EEB)

Ecosystem building in the context of entrepreneurship refers to creating a conducive and supportive environment for startups and entrepreneurs to thrive (Theodoraki, et al, 2022). According to Santos (2022) EEB involves bringing together various stakeholders, such as government agencies, investors, mentors, educational institutions, and industry experts, to collaborate and provide a holistic support system for startups. A strong entrepreneurial ecosystem encourages networking, access to funding, mentorship, and access to markets, all of which are vital for the success of new ventures (Qian & Acs, 2023). Ecosystem building in the realm of entrepreneurship entails the deliberate and strategic effort to create a nurturing and supportive environment for startups and entrepreneurs to flourish. Khurana et al (2022) alludes that ecosystem building goes beyond the traditional approach of offering isolated support to individual startups and instead focuses on fostering a dynamic and interconnected ecosystem that cultivates innovation, collaboration, and sustainable growth.

Central to the concept of ecosystem building is the idea of bringing together a diverse range of stakeholders who play essential roles in the entrepreneurial journey. This includes government bodies, investors, educational institutions, industry experts, support organizations, and successful entrepreneurs. By fostering collaboration and networking among these stakeholders, ecosystem building aims to create a fertile ground where startups can thrive and access a plethora of resources and opportunities.

Stakeholder Theory

The study adopted duo of Milton Friedman's shareholder theory and Stakeholder theory: Friedman theory argues that a firm's sole responsibility is to its shareholders and should focus on maximizing shareholder value. This perspective emphasizes profit maximization over social or environmental considerations. The sole liability of an organization, as indicated by Milton Friedman's theory, is to increment benefits. As indicated by him, a firm shouldn't have any "social obligation" to the overall population or society on the grounds that its significant goal is to increment benefits for itself as well as its investors. In any case, since chiefs could put their own advantages in front of those of the organization, and that implies they don't genuinely add an incentive for financial backers (Forde, 2020), investors should depend on administration to complete various exercises. While the Stakeholder theory theory posits that a company has a responsibility to all of its stakeholders, including employees, customers, suppliers, the community, and the environment. This approach emphasizes the interconnectedness of business and society and encourages companies to consider the broader impacts of their actions.

Furthermore, companies much of the time miss the mark on information and abilities important to deal with various social and natural commitments. Assets are not utilized successfully when organizations partake in a few CSR endeavors (Henderson, 2001). The greater part of ventures are begun by unsafe proprietor drives, which is the way the investor point of view became. The proprietor or business person focuses on an idea without an assurance of a profit from venture, albeit the re-visitation of different partners, including as moneylenders, workers, and providers, is commonly controlled through agreements. Proprietors are unmistakable partners with regards to investor esteem, and their inclinations should be focused on over all others. As a result of the proprietor's incomplete command over the business, the higher gamble is to some extent redressed. Proprietors should be focused on over different partners therefore.

Methodology

The research employs the mixture of observation and survey to collect data suitable for quantitative analysis of the effect of digital integration responsibility of telecommunication companies on the entrepreneurial ecosystem building. The study population are customers of telecommunication companies in Kwara State. The choice of this sample size formula was premised on the fact it is one of the sample size formulas that can be used to determine infinite population considering the nature of this study with perceived large population (Godden, 2004).

Sample Size - Infinite Population (where the population is greater than 50,000)

$$n = \frac{Z^2 \times (p) \times (1 - p)}{C^2}$$

Where;

n = Sample Size

Z = Z-value (e.g., 1.96 for a 95 percent confidence level)

P =Percentage of population picking a choice, expressed as decimal in this case (0.8)

C = Confidence interval, expressed as decimal (e.g., .05 = +/- 5 percentage points)

In calculating the sample size, the following result was obtained:

$$\begin{aligned}n &= \frac{1.96^2 \times 0.8 (1 - 0.8)}{0.5^2} \\n &= \frac{3.8416 \times 0.8 \times 0.2}{.0025} \\n &= \frac{0.614656}{.0025}\end{aligned}$$

Therefore, n = 360

The study administered 400 copies of the questionnaire to the selected sample. However, out of the 380 copies of questionnaire distributed, only 361 were returned and considered valid for usage in the analysis

Test of Hypotheses**Table Correlations**

		Digital Inclusion responsi bility	Digital Literac y respon sibility	Digital Integrati on responsi bility	techno- ethics responsibi lity	Ecosystem Building
Digital Inclusion responsibility	Pearson Correlation	1	.609**	.510**	.109*	.570**
	Sig. (2-tailed)		.000	.000	.038	.000
	N	361	361	361	361	361
Digital Literacy responsibility	Pearson Correlation	.609**	1	.671**	.110*	.282**
	Sig. (2-tailed)	.000		.000	.037	.000
	N	361	361	361	361	361
Digital Integration responsibility	Pearson Correlation	.510**	.671**	1	.053	.262**
	Sig. (2-tailed)	.000	.000		.315	.000
	N	361	361	361	361	361
techno-ethics responsibility	Pearson Correlation	.109*	.110*	.053	1	.006
	Sig. (2-tailed)	.038	.037	.315		.914
	N	361	361	361	361	361
Ecosystem Building	Pearson Correlation	.570**	.282**	.262**	.006	1
	Sig. (2-tailed)	.000	.000	.000	.914	
	N	361	361	361	361	361
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

The table 2 presents a correlation analysis between various factors related to digital responsibility and ecosystem building, based on Pearson correlation coefficients. There is a strong positive correlation (correlation coefficient of 0.570**) between Digital Inclusion Responsibility and Ecosystem Building. This implies that those who prioritize digital inclusion are also likely to engage in ecosystem-building efforts. Digital Literacy Responsibility exhibits a moderate positive correlation (correlation coefficient of 0.282**) with Ecosystem Building. Techno-Ethics Responsibility It also exhibits no significant correlation (correlation coefficient of 0.006) with Ecosystem Building.

The analysis suggests that there are strong positive correlations between Digital Inclusion Responsibility, Digital Literacy Responsibility, and Ecosystem Building, indicating that organizations or individuals that prioritize one of these aspects are likely to emphasize the others as well. Digital Integration Responsibility is also positively correlated with these factors but to a slightly lesser extent. Techno-Ethics Responsibility, on the other hand, appears to have weaker associations with the other factors.

Discussion of finding

The present study investigated the relationships between various digital responsibilities (digital inclusion, digital literacy, digital integration, techno-ethics) and their impact on Entrepreneurial Ecosystem Building (EEB). A total of 361 respondents participated in the study, which utilized a cross-sectional survey research design. The sampling technique employed was convenience sampling, whereby participants were selected based on their accessibility and willingness to participate. The study's main objectives revolved around testing hypotheses that explored the effects of different digital responsibilities on EEB. To achieve this, multiple regression analysis was conducted.

Conclusion

The findings from our study provide robust evidence that digital inclusion responsibilities have a significant and positive impact on Entrepreneurial Ecosystem Building. This suggests that efforts aimed at bridging the digital divide, promoting equitable access to technology, and fostering digital literacy can play a pivotal role in enhancing the overall health and dynamism of entrepreneurial ecosystems. Policymakers, organizations, and stakeholders should prioritize initiatives that ensure that all individuals, regardless of their socio-economic backgrounds, have equal opportunities to participate and contribute to the entrepreneurial landscape.

Recommendations

Telecommunication companies should invest in expanding digital infrastructure, especially in underserved areas, to improve access to technology and the internet. This will contribute to bridging the digital divide and promoting inclusive participation in the entrepreneurial ecosystem.

Collaborate with educational institutions and training organizations to provide digital skills training programs for aspiring entrepreneurs. Focus on equipping individuals with the necessary skills to leverage technology effectively for business growth.

They should also engage in community-based initiatives that provide affordable or free access to digital resources, such as co-working spaces with high-speed internet, to encourage entrepreneurship and innovation at the grassroots level.

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