



EFFECT OF DIGITAL LITERACY RESPONSIBILITY OF TELECOMS ON ENTREPRENEURIAL ECOSYSTEM BUILDING

Brimah, A. N.

Associate Professor, Department of Business and Entrepreneurship, Faculty of Management and Social Sciences, Kwara State University, Malete

Salau, A. A.

Associate Professor, Department of Business and Entrepreneurship, Faculty of Management and Social Sciences, Kwara State University, Malete

Sirsalau@gmail.com

Sanni, A. M

Postgraduate Student, Department of Business and Entrepreneurship, Faculty of Management and Social Sciences, Kwara State University, Malete

Sannimuslimat@gmail.com

Abstract

This study investigates the relationship between digital literacy responsibility of telecommunication companies and entrepreneurship ecosystem building. A quantitative approach was adopted to explore the association of digital literacy responsibility and entrepreneurship ecosystem building. The study was conducted using a survey of 400 entrepreneurs from Kwara state. The survey involved questions related to the digital literacy responsibility of telecommunication companies and entrepreneurship ecosystem building. The survey results were then analyzed using descriptive statistics. The findings revealed that digital literacy responsibility of telecommunication companies is positively associated with entrepreneurship ecosystem building. The study also found that digital literacy responsibility is an important factor in determining the level of successful ecosystem building. The study concluded that digital literacy responsibility of telecommunication companies is an important factor in successful entrepreneurship ecosystem building. The study therefore recommend that telecommunication companies should invest in expanding digital infrastructure, especially in underserved areas, to improve access to technology and the internet. They should also develop comprehensive digital literacy programs that cover a wide range of digital competencies. Tailor these programs to address the specific needs and challenges faced by entrepreneurs, ensuring they are equipped to navigate the digital landscape. Partner with entrepreneurship-focused organizations to integrate digital literacy training into existing programs.

Keywords: *Digital literacy, Telecommunication companies, Privacy, Educational resources and E-Waste management*

Introduction

The intersection of technology, corporate social responsibilities (CSR), and entrepreneurship has become a focal point for industries worldwide. In recent years, the

telecommunication industry in Nigeria has been at the forefront of this convergence, leveraging technological advancements to drive meaningful and sustainable CSR initiatives while also contributing to the



growth of the entrepreneurial ecosystem in the country. Nigeria, as Africa's most populous nation and one of its largest economies, has witnessed a remarkable surge in technological innovation and adoption. The telecommunication industry has been a key catalyst in this transformation, playing a pivotal role in connecting previously underserved populations, promoting digital literacy, and fostering economic development. With the widespread proliferation of mobile devices and the increasing penetration of internet services, the sector has created unprecedented opportunities for the emergence of new businesses and the empowerment of local entrepreneurs (Akinleye, & Adedayo, 2017)..

Corporate Social Responsibility (CSR) has become an integral part of the business strategies of telecommunication companies operating in Nigeria (Adeleye, 2022). As these companies continue to benefit from the burgeoning technological landscape, they are increasingly recognizing their responsibility to give back to the communities they serve. Through initiatives such as digital skills training, access to educational resources, healthcare support, and environmental sustainability efforts, telecommunication firms are actively contributing to social welfare and inclusive growth (Akotey, et al, 2020).

This research focused on the Nigerian telecommunication industry with particular reference to 4 companies and their subscribers. In view of constraints in covering the entire landscape of the targeted industry, there was the need to limit the scope to a realistic sample location, sample size within the time-frame of the research and available resources. Kwara State was chosen as the sample location for its broad-based representation of Nigeria; hence, hypothesis was generated as thus;

H₀: digital literacy responsibility of telecoms does not have significant effect on Entrepreneurial Ecosystem Building.

Literature Review

The concept of technology-driven Corporate Social Responsibility (CSR) involves integrating technology into CSR initiatives and practices (Nsikan, Umoh, & Bariate, 2015). It recognizes the potential of technology as a powerful tool for addressing social, environmental, and economic challenges faced by organizations and societies. According to Thompson, & Cumberbatch, (2019). Technology-driven CSR goes beyond traditional philanthropic activities and embraces innovative solutions and digital platforms to create positive social impact.

At its core, technology-driven CSR aims to leverage advancements in technology to enhance the effectiveness, efficiency, and reach of CSR initiatives (Singh & Sahadev, 2021). It encompasses various aspects, including digital inclusion, technology adoption, technology integration, and digital connectivity, all with the goal of contributing to sustainable development and societal well-being.

One key aspect of technology-driven CSR is digital inclusion. It focuses on bridging the digital divide by providing equal access to digital technologies and services for individuals and communities (Ojeme & Ojeme-Imonah, 2022). This includes initiatives such as providing internet connectivity, digital skills training, and affordable devices to underserved populations. By enabling digital inclusion, organizations aim to reduce inequalities and promote equal opportunities for participation in the digital world.

Another aspect is technology adoption, which involves integrating new and emerging technologies within organizational processes, products, and services (Mukherjee & Dutta, 2022). By adopting technologies such as artificial intelligence, blockchain, Internet of Things (IoT), and data analytics, organizations can improve efficiency, productivity, and



service quality (Wael, 2014). Technology adoption in CSR initiatives can enable organizations to create innovative solutions, enhance operational performance, and address societal challenges more effectively.

Furthermore, technology-driven CSR involves utilizing digital platforms and tools to engage stakeholders, communicate CSR efforts, and amplify the impact of initiatives (Nhamo & Hlalele, 2020). This includes leveraging social media, online platforms, and digital marketing strategies to raise awareness, mobilize support, and facilitate collaboration with stakeholders. Digital connectivity plays a vital role in connecting organizations with their stakeholders, enabling transparent and real-time communication and fostering meaningful engagement.

The concept of technology-driven CSR recognizes that technology has transformative potential and can serve as a catalyst for positive change (Singh & Sahadev, 2021). It aligns with the evolving expectations of stakeholders, who increasingly demand that organizations leverage technology to contribute to society. By integrating technology-driven CSR into their strategies and operations, organizations can enhance their reputation, attract and retain customers, engage employees, and achieve sustainable business growth while addressing societal needs.

In summary, technology-driven CSR represents a paradigm shift in how organizations approach social responsibility (Nhamo & Hlalele, 2020). It embraces the power of technology to create meaningful and scalable impact, drive innovation, and foster inclusive and sustainable development. By harnessing technology's potential, organizations can navigate the digital era while actively contributing to the well-being of society.

Dimensions of Corporate Social Responsibility

Corporate social responsibility has various distinctive facets, according to researchers. Some people only thought about the organization as a whole, others only the outsiders, and yet others considered both in order to develop their own perspectives. Basic responsibility, organizational responsibility, and social responsibility are the three cornerstones of CSR, according to Saale (2005). According to Maduka (2010), sponsorship duty, charity obligation, and ethical responsibility are the three main components of corporate social responsibility. Contrarily, corporate social responsibility was characterized by Carrol (1996) as activities involving economic, legal, ethical, and philanthropic responsibilities. Corporate social responsibility, according to Gbam, and Dedi (2017), consists of five elements: duties to owners (shareholders), employees, clients, the government, and the community/society.

Al-maani, Al-Qudah, and Shrouf (2019) defined environmental CRS, consumer CRS, and community CRS as components of corporate social responsibility. Businesses that conduct their activities in a way that safeguards the environment are said to be using environmental CRS. As a result, it describes the extent to which a business considers how its actions would damage the environment and takes measures to prevent doing so (Sand, 2015; Jyachandran, 2013). Customer social responsibility refers to steps performed by a business with a customer-centric mindset that endeavour to offer their clients the precise services they need as well as measures that attempt to provide total transparency of their actions to their consumers. According to Obiekwe and Nwaeke (2019) and Ali, Rehman, Ali, Yousef, and Zia (2010), customers' perceptions of an organization's social responsibility initiatives have an impact on their purchase intentions, retention, and loyalty. Community social responsibility focuses on how businesses operate and what



they do generally to have a positive social impact. Those who work for the firm, its suppliers, creditors, investors, regulators, and local residents are all considered to be members of the "community," which also refers to all other stakeholders outside of the organization.

Benefits of Incorporating Technological Driven Corporate Social Responsibility (CSR) to an Organisation

The incorporation of technology-driven corporate social responsibility (CSR) initiatives in organizations brings forth numerous benefits that positively impact both the organization and the society it operates in. As society becomes more aware of the role and expectations of businesses, and as governments enact stricter regulations, organizations cannot afford to overlook their social responsibilities (Baridam, 1995). The privileges and support granted to businesses are rooted in the belief that there is mutual interdependence between organizations and society (Boafo & Kukuma, 2016; Obiekwe & Nwaeke, 2019; Robbins, Judge, & Sanghi, 2009).

One significant benefit is the enhancement of corporate reputation, which attracts goodwill and fosters long-term customer loyalty to the organization's brand. By actively engaging in technology-driven CSR, organizations build a positive image as socially and ethically responsible entities, setting themselves apart from their competitors (Obiekwe & Nwaeke, 2019). This, in turn, contributes to improved customer trust and preference, ultimately leading to increased revenues and market share.

In addition, incorporating technology-driven CSR initiatives allows organizations to meet the evolving expectations of stakeholders and demonstrate their commitment to stakeholder welfare and well-being. By considering the viewpoints and interests of various stakeholders, organizations can establish

stronger relationships with customers, employees, investors, and the wider society (Saddiq & Javed, 2014). This stakeholder engagement fosters a supportive environment and enhances the organization's overall performance and sustainability.

Moreover, technology-driven CSR initiatives contribute to social and community development. By leveraging technology, organizations can address societal needs and contribute to positive social change. For example, initiatives focused on digital inclusion, environmental sustainability, and community empowerment can have far-reaching impacts on individuals and communities (Aluko, Olugbesan, Gbadamosi & Osuagwu, 2004). Such initiatives enhance the social welfare and well-being of the society in which the organization operates, creating a conducive environment for long-term business success.

Furthermore, incorporating technology-driven CSR can mitigate risks and strengthen organizational resilience. By proactively addressing social and environmental challenges through innovative technology solutions, organizations become better equipped to adapt to changing circumstances and anticipate future trends (Porter, 2005). This adaptability enhances the organization's ability to navigate challenges, maintain stakeholder trust, and ensure sustainable growth in an ever-changing business landscape.

In conclusion, incorporating technology-driven CSR initiatives into organizations brings numerous benefits. It enhances corporate reputation, fosters stakeholder engagement, contributes to social development, and strengthens organizational resilience. As businesses increasingly recognize the importance of social responsibility and its impact on long-term success, technology-driven CSR becomes a crucial aspect of corporate strategy, enabling organizations to thrive in a competitive



business environment while positively impacting society.

Digital literacy

The concept of digital literacy has evolved far beyond a mere ability to use digital devices and software; it now encompasses a diverse set of complex cognitive, motor, sociological, and emotional skills essential for effective functioning in digital environments. This article presents a holistic and refined conceptual framework for digital literacy, incorporating multiple dimensions that contribute to users' proficiency in the digital world. Photo-visual literacy is a critical aspect of digital literacy that involves understanding and critically analyzing visual content in various digital formats. Scholars have emphasized the significance of this skill as individuals encounter an increasing amount of visual information in the digital age.

Reproduction literacy pertains to the ability to create and remix content in digital environments. Researchers have explored reproduction literacy in the context of media education, addressing ethical considerations related to content reproduction (Buckingham, 2003).

Branching literacy refers to the skills required for navigating nonlinear, hypertextual information in digital contexts. Scholars have recognized the importance of teaching students to traverse digital information effectively (Leu & Forzani, 2011).

Information literacy is a crucial dimension of digital literacy, focusing on the capacity to evaluate and critically analyze digital information. Pioneering work by Christine Bruce in "The Seven Faces of Information Literacy" outlines the various dimensions of information literacy, aligning with the information literacy aspect of digital literacy proposed in the article (Bruce, 1997).

Socioemotional literacy encompasses aspects like etiquette, empathy, and trust in digital interactions and communities of practice.

Researchers have highlighted the significance of fostering positive social interactions in digital environments (Preece, 2004).

By incorporating these dimensions of digital literacy in the proposed framework, the article offers a comprehensive understanding of the multifaceted skills required for thriving in the digital world. Scholars and developers can utilize this framework to design user-oriented environments that empower individuals to navigate digital technologies effectively, critically evaluate information, create and share content responsibly, and foster positive social interactions online. The integration of these diverse dimensions of digital literacy provides a nuanced and comprehensive approach to preparing individuals to engage meaningfully in the digital age.

In the early days of the popularization of personal computers in the 1980s, many people spoke of the infinite potential of the information highway that promised egalitarian and multidirectional communication among all peoples, groups, and nations. But another metaphor, critical of the naive optimism of the early years, did not take long to appear: that of the digital divide. Palfrey and Gasser (2016) identified four types of digital responsibilities.

1. Privacy and Data Literacy:

Privacy and data literacy involve educating individuals about their rights and responsibilities concerning the collection, use, and protection of their personal information online. Telecommunication companies have a responsibility to educate their customers about data privacy practices, including how their personal information is collected, stored, and shared. This can be achieved through privacy policy transparency, user-friendly interfaces that allow users to manage their privacy settings, and providing clear explanations of data usage. By promoting privacy and data literacy, telecoms empower users to make informed decisions about sharing their data and using online services securely. This can



enhance user trust, reduce the risk of data breaches, and contribute to a safer digital environment.

2. Educational Resources:

Providing educational resources involves offering materials and tools that help individuals acquire digital skills and knowledge. Telecommunication companies can create and distribute educational content, such as tutorials, guides, and videos, that teach users how to effectively use digital devices, navigate the internet, and utilize various applications and platforms. Offering educational resources enhances users' digital literacy, enabling them to confidently engage with technology. This empowers individuals to access online opportunities, participate in the digital economy, and stay informed in an increasingly digital world.

3. E-Waste Management Training:

E-waste management training involves educating users about the proper disposal and recycling of electronic devices to minimize environmental impact. Telecommunication companies can organize workshops, webinars, or campaigns that educate users on how to recycle electronic devices responsibly. They can also establish e-waste collection points or partnerships with recycling facilities. E-waste management training promotes environmental sustainability by reducing the harmful effects of improper electronic waste disposal. By raising awareness and providing practical guidance, telecoms contribute to a greener and more eco-conscious digital ecosystem.

4. Internet Usage Awareness

Internet usage awareness focuses on teaching individuals about responsible and safe online behavior, including recognizing and mitigating online risks. Telecommunication companies can run public awareness campaigns that educate users about online threats such as phishing, scams, and cyberbullying. They can

also provide tips on how to protect personal information, verify sources, and maintain a positive online presence. By promoting internet usage awareness, telecoms help users navigate the digital landscape confidently and avoid potential pitfalls. This contributes to a healthier online environment and protects users from various online dangers.

Incorporating these concepts into their digital literacy responsibilities, telecommunication companies play a vital role in equipping users with the skills and knowledge needed to thrive in the digital age while promoting responsible and ethical online behavior.

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. It 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.

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. It 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.

At the heart of ecosystem building lies the recognition that startups and entrepreneurs benefit immensely from a supportive network. By facilitating meaningful connections between entrepreneurs and key players in the entrepreneurial ecosystem, ecosystem building ensures that startups can access crucial guidance, funding, mentorship, and market insights. This interconnectedness empowers startups to navigate challenges more effectively and seize growth opportunities.

Access to funding is a critical aspect of entrepreneurial success, and ecosystem building actively seeks to bridge the gap between startups and various sources of finance. This can include venture capital firms, angel investors, crowdfunding platforms, and government grants. By streamlining access to funding, ecosystem building helps startups secure the financial resources they need to scale and expand their ventures.

2.2 Theoretical Review

One paradigm that guides CSR is the legitimacy hypothesis. The theory holds that organisations are restricted by a social compact that binds them to perform a range of socially good deeds in return for assistance with their objectives and other advantages, which ultimately assures their survival. Van der Laan (2009) defined legitimacy as the generally held belief or assumption that an entity's actions conform to a particular set of socially constructed norms, values, beliefs, and definitions. The notion holds that society and groups interact with one another. Organisations are a part of society, and they can only exist if different social groups acknowledge their legitimacy. Depending on

how an organisation perceives its legitimacy, it may employ "legitimation" tactics (Laan, 2009) to develop, preserve, or protect its credibility (Tilling, 2004), as well as to close any gaps in legitimacy that may exist due to credibility risks (Vourvachis, 2008). The core tenet of CSR, so the argument goes, is that companies endeavour to operate within the confines of socially acceptable behaviour. Stakeholder theory and legitimacy theory have been developed from a larger political economics perspective. The link between the organisation and its working environment is the focus of both, despite the fact that they are distinct from one another (Van der Laan, 2009).

Empirical Review

A study on developing a successful strategy for competitive performance through corporate social responsibility with a focus on MTN Nigeria was conducted by Adebisi and Taiwo in 2014. With particular reference to MTN Limited, an established telecom firm in Nigeria, the research's main goal was to assess the likelihood of businesses utilizing CSR as a strategic method for competitive performance. The results showed that effective society focused corporate social responsibility, good ethical and environmental CSR, and economic empowerment of the host community had a substantial impact on the organizational performance of the mobile service provider.

Wang (2011) studied the impact of fulfilling CSR on stock performance using a local CSR index (CSRI) based on two ideas, socially responsible investment (SRI) and corporate contributions to stakeholders. According to research, doing CSR has a very good effect on stock performance. This suggests that a company can pursue the expansion of stockholders' wealth while also achieving two significant goals, one of which is acting as a responsible corporate citizen.



When Luo and Bhattacharya (2006) looked at how corporate social responsibility (CSR) affected how customers were regarded, they found that in businesses with weak inventive capabilities, CSR actually decreased consumer satisfaction levels, which in turn decreased market value.

Wei, Peng, Huang, and Yeh (2020) to look into how their interaction affected business performance. This study uses unbalanced panel regression to assess a sample of publicly traded companies in the United States and discovers that, generally speaking, businesses with higher customer satisfaction experience positive increases in anomalous stock returns. CSR benefits a company's performance, while socially irresponsible business practises have the opposite effect. All other factors being equal, there is a positive interaction impact between CSiR and customer satisfaction on stock returns. The results suggest that a high level of customer satisfaction may mitigate the negative consequences of corporate social irresponsibility on a firm's ability to succeed financially. Our study will increase management executives' and investors' awareness of how improving customer satisfaction might lessen the effect that unforeseen events have on a business' success. The impact of corporate social responsibility on organisational performance in the Jordanian telecommunications sector was studied by Al-Ma'ani, Al-Qudah, and Shrouf (2019). Questionnaires were utilised to collect information from three telecommunications companies based on the Likert scale. The data was collected from 500 employees of telecommunications companies. Statistical methods were used to analyse the data. According to the results, internal CSR positively affects both financial and non-financial performance. Additionally, it has been demonstrated that external CSR has a positive effect on non-financial performance. External CSR has a negative effect on financial

performance, although a small one. The current study presents opinions on how crucial CSR is to organisational effectiveness in telecoms businesses.

Methodology

This study employs a descriptive survey of correlation type with an exploratory approach. The research design aims to achieve representative sampling, ensuring the validity and reliability of the findings. Through an exploratory analysis of available data, the study investigates the impact of technological driven corporate social responsibility (CSR) on EEB. The study population consists of beneficiaries of technological Corporate Social Responsibility (CSR) initiatives in Kwara State, Nigeria. The sample size determination is based on the Godden (2004) model for infinite populations. A sample size of 400 is chosen to facilitate comprehensive representation and analysis. A Snowballing sampling technique is adopted to select participants. This technique is suited for identifying and reaching individuals who are part of a specific niche, such as beneficiaries of technological-driven telecommunication CSR initiatives. To ensure the validity of research instruments, a pre-testing phase is conducted. Expert evaluation and feedback from subject-matter experts contribute to content validity. The Kaiser Meyer Olkin (KMO) test indicates the suitability of data for factor analysis. Reliability of research instruments is assessed using Cronbach's alpha coefficients. High internal consistency, as reflected in the coefficients, indicates the reliability of the scales used in the study. Primary data is gathered through a structured questionnaire administered to beneficiaries of technological-driven telecommunication CSR initiatives in Kwara State. The questionnaire includes closed-ended questions employing a Likert scale for precise measurement. Data analysis involves both descriptive and inferential statistics. Descriptive analysis employs cross



tabulation to provide a comprehensive understanding of the data. Inferential statistics are utilized to draw meaningful insights and establish relationships among variables.

Model formulation

DLR1 = x_1 = Privacy and Data literacy

DLR2 = x_2 = Educational Resources

DLR3 = x_3 = E-waste management Training

DLR4 = x_4 = Internet usage awareness

Y = EEB

Thus,

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \alpha$$

Where β = intercept ; β_0 = Constant term; α = Error term

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

The study administered 400 copies of questionnaire out of which 361 were retrieved.

Table 1 GENDER * STATUS Cross tabulation
Count

		STATUS				Total
		Single	Married	Divorced	Widowed	
GENDER	Male	37	137	29	19	222
	Female	30	78	25	6	139
Total		67	215	54	25	361

The provided cross-tabulation highlights the distribution of respondents based on their gender and marital status. This analysis offers insights into how these demographic factors intersect, shedding light on the diverse experiences and perspectives of the surveyed individuals.

Among the male respondents, a total of 222 were included in the study. Out of these, 37 were single, 137 were married, 29 were divorced, and 19 were widowed. This distribution indicates that the largest proportion of male respondents were married, followed by those who were single, divorced, and widowed.

For female respondents, the total number surveyed was 139. Of these, 30 were single, 78 were married, 25 were divorced, and 6 were widowed. In this case, the majority of female respondents were also married, followed by

those who were single, divorced, and widowed.

Combining the data for both genders, a total of 361 respondents participated in the survey. Among them, 67 were single, 215 were married, 54 were divorced, and 25 were widowed. This cross-section of the population reveals a more comprehensive view of marital status, with the majority of respondents being married, followed by single individuals, divorced participants, and those who were widowed.

The cross-tabulation of gender and marital status underscores the importance of considering multiple demographic variables when analyzing survey data. The distribution of respondents across different marital statuses provides valuable insights into how gender and relationship status intersect, contributing to a



richer understanding of the surveyed population's composition and dynamics

Table 2 GENDER * EDU Crosstabulation

Count

		EDU					Total
		School Cert	Diploma	Degree	Postgraduate	Professional Qualification	
GENDER	Male	15	4	123	75	5	222
	Female	12	41	25	61	0	139
Total		27	45	148	136	5	361

The provided cross tabulation offers a comprehensive view of the distribution of respondents based on their gender and educational attainment. This analysis unveils the varying levels of education within the surveyed population, allowing us to understand how gender and educational background intersect.

Among the male respondents, a total of 222 individuals participated in the study. Of these, 15 had a School Certificate, 4 had a Diploma, 123 held a Degree, 75 had a Postgraduate qualification, and 5 possessed a Professional Qualification. This breakdown indicates that the majority of male respondents held a Degree, followed by Postgraduate qualifications, School Certificates, Diplomas, and Professional Qualifications.

For female respondents, a total of 139 individuals were surveyed. Out of these, 12 held a School Certificate, 41 had a Diploma, 25 held a Degree, 61 had a Postgraduate qualification, and none had a Professional Qualification. Here, the distribution reveals that the highest number of female respondents

held a Postgraduate qualification, followed by Diplomas, Degrees, School Certificates, and no individuals with Professional Qualifications.

Combining the data for both genders, a total of 361 respondents took part in the survey. Among them, 27 held a School Certificate, 45 had a Diploma, 148 held a Degree, 136 had a Postgraduate qualification, and 5 possessed a Professional Qualification. This comprehensive view underscores the prevalence of respondents with a Degree or Postgraduate qualification, followed by Diplomas, School Certificates, and a smaller proportion with Professional Qualifications.

In conclusion, the crosstabulation of gender and educational attainment provides valuable insights into the diverse educational backgrounds within the surveyed population. The intersection of gender and education sheds light on the distribution of individuals with different levels of academic achievement, contributing to a deeper understanding of the demographic composition and educational diversity among the respondents.

**Table 3: GENDER * AGE Cross tabulation**

Count

		AGE					Total
		Below 20	20-30	31-40	41-50	Above 45	
GENDER	Male	5	34	131	22	30	222
	Female	20	19	43	11	46	139
Total		25	53	174	33	27	361

The provided cross tabulation presents a comprehensive breakdown of respondents based on their gender and age groups, offering insights into the distribution of participants across different age categories.

Among the male respondents, a total of 222 individuals were surveyed. Within this group, 5 were below the age of 20, 34 fell within the 20-30 age range, 131 were aged 31-40, 22 were aged 41-50, and 30 were above the age of 45. This distribution illustrates that the largest proportion of male respondents were within the 31-40 age range, followed by those aged 41-50, 20-30, below 20, and above 45.

For female respondents, a total of 139 individuals participated in the survey. Among them, 20 were below the age of 20, 19 were aged 20-30, 43 fell within the 31-40 age range, 11 were aged 41-50, and 46 were above the age of 45. In this case, the distribution shows that the highest number of female respondents were

above the age of 45, followed by those aged 31-40, 20-30, below 20, and 41-50.

Combining the data for both genders, a total of 361 respondents were included in the study. Among this combined group, 25 were below the age of 20, 53 were aged 20-30, 174 fell within the 31-40 age range, 33 were aged 41-50, and 27 were above the age of 45. This comprehensive view emphasizes that the largest segment of respondents were aged 31-40, followed by 20-30, above 45, 41-50, and below 20.

In conclusion, the crosstabulation of gender and age provides a valuable snapshot of the age distribution within the surveyed population. The intersection of these demographic variables helps to highlight the varying age groups' representation, contributing to a deeper understanding of the age-related dynamics and perspectives among the respondents.

Table 4: Regression Table

R	0.595
R ²	0.354
Adjusted R ²	0.339
Standard Error	0.45368
Durbin-Watson	1.675
Sum of Squares	39.732
Mean Square	4.966
F	24.129
Sig	0.000

Dependent Variable: EEB



Independent Variable: Digital Literacy Responsibility
Predictors: (Constant), DIR4, DIR1, DIR2, DIR3

The model for digital literacy responsibility shows an R value of .595 and an R Square of .354, indicating that around 35.4% of the variance in Entrepreneurial Ecosystem Building is explained by digital literacy responsibility. The Adjusted R Square is .339, and the Standard Error of the Estimate is .45368. The p-value associated with digital literacy responsibility is significant, it imply that digital literacy responsibility has a

statistically significant effect on Entrepreneurial Ecosystem Building.

The regression continues to explain a significant amount of the variance in EEB. The Sum of Squares for Regression is 39.732, with 8 degrees of freedom, resulting in a Mean Square of 4.966. The F-statistic is 24.129, and the associated p-value is 0.000 (significant at the 0.01 level). This indicates that adding more predictors still contributes significantly to explaining the variability in EEB.

Table 5: Coefficient Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.889	.137		13.294	.000
	DIR1	.077	.025	.143	3.120	.002
	DIR2	.091	.033	.142	2.724	.007
	DIR3	.099	.032	.161	3.067	.002
	DIR4	.207	.029	.348	7.198	.000

The constant is 1.889, and the predictor variables include DIR1, DIR2, DIR3, DIR4. Among these, the coefficients for DIR1, DIR2, DIR3, DIR4, DLR4 remain statistically significant and positive, indicating a positive influence on EEB.

The effects observed for digital literacy responsibilities are in line with the nuanced nature of digital skills and their role in entrepreneurship. While most digital literacy responsibilities positively influence EEB, the negative impact of a specific aspect (DLR2) may reflect the complexity of digital competencies. Existing literature highlights that a comprehensive range of digital skills is crucial for entrepreneurs to effectively navigate digital platforms, networks, and tools (Morris et al., 2013).

Conclusion

The study reveals a nuanced relationship between digital literacy responsibilities and Entrepreneurial Ecosystem Building. It is crucial to focus on fostering a well-rounded set of digital skills among entrepreneurs, while also identifying and addressing potential challenges that certain digital literacy aspects might pose. Striking the right balance between different digital literacy components can enhance entrepreneurial capacity and innovation within ecosystems. The study therefore recommend that telecommunication companies should invest in expanding digital infrastructure, especially in underserved areas, to improve access to technology and the internet. They should also develop comprehensive digital literacy programs that



cover a wide range of digital competencies. Tailor these programs to address the specific needs and challenges faced by entrepreneurs, ensuring they are equipped to navigate the digital landscape. Partner with entrepreneurship-focused organizations to integrate digital literacy training into existing programs. This can enhance the digital preparedness of entrepreneurs and enable them to leverage technology for business development.

References

- Acheampong, S. O., Abaidoo, R. C., Mensah, I. A., & Ofori, C. (2021). Technology-driven CSR and inclusive growth in emerging economies: A study of Ghana. *Journal of Business Ethics*, 169(2), 347-367.
- Acs, Z. J., Audretsch, D. B., Braunerhjelm, P., & Carlsson, B. (2021). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, 56(2), 441-451.
- Adeleye, E.O. (2022). Corporate social responsibility and organizational performance. *International Journal of Social Sciences and Management Research*, 8 (1) 2022.
- Akinleye, G. T., & Adedayo, T. F. (2017). Impact of corporate social responsibility on the profitability of multinational companies in Nigeria. *Global Journal of Management and Business Research: Accounting and Auditing*, 17(3), 27-35.
- Akotey, J. O., Adjasi, C. K., & Acheampong, P. (2020). Mobile money usage, financial performance, and corporate social responsibility: Evidence from Sub-Saharan Africa. *Journal of Corporate Finance*, 62, 101521.
- Ali, I., Rahman, K., Ali, S., Yousaf, J. & Zia, M. (2010). Corporate social responsibility influence, employee commitment and organizational performance. *African Journal of Business Management*, 4, 2796-2801
- Aliyu, B. U., & Noor, A. B. A. (2015). Corporate social responsibility practice and corporate financial performance: evidence from Nigeria companies. *Social Responsibility Journal*, 11(4), 749-763.
- Al-ma'ani, B., Al-Qudah, S. & Shrouf, H. (2019). The impact of corporate social responsibility on organizational performance in telecommunication sector in Jordan. *Modern Applied Science*, 13(4), 1-11
- Al-Samman, E., Al-Nashmi, M.M. (2016). Effect of corporate social responsibility on nonfinancial organizational performance: evidence from Yemeni for-profit public and private enterprises. *Social Responsibility Journal*, 12(2), 247-262
- Aluko, M., Odugbesan, O., Gbadamosi, G. & Osuagwu, L. (2004). *Business policy and strategy*. Lagos: Longman Publishers.
- Babalola, A. (2012). The impact of corporate social responsibility on firms' profitability in Nigeria. *European Journal of Economics, Finance, and Administrative Sciences* 2(3) 39-50.
- Baridam, D.M. (1995). *Business: management approach*. Port Harcourt: Paragaphic



- Boafo, N.D. & Kokuma, D.A. (2016). The impact of corporate social responsibility on organizational performance: a case study of Vodafone Ghana Limited. *European Journal of Business and Management*, 8(22), 46-57
- Carroll, A. B. (1991). A three-dimensional conceptual model of corporate social performance. *Academy of Management Review* 4 (4), 497–505.
- Chowdhury, S. (2018). Bridging digital divide in emerging economies: Case study of technology-driven CSR initiatives in India. In *Information and Communication Technology for Sustainable Development* (pp. 311-321). Springer.
- Dhanaraj, C., Guha, S., & Banerjee, P. (2020). Digital Entrepreneurship: Mapping the Terrain, Identifying Key Debates. *Journal of Business Venturing Insights*, 14, e00171.
- Dhillon, G., & Lim, Y. (2018). Integrating telemedicine and digital health initiatives into healthcare systems: Key success factors. In *Handbook of Research on Healthcare Administration and Management* (pp. 400-416). IGI Global.
- Gao, Y., Wang, Y., & Liang, Y. (2019). Entrepreneurial ecosystem and business model Innovation. technological forecasting and social change, 149, 119751.
- Gbam, B., & Dedi, H. M. (2017). Effects of corporate social responsibility on organizational performance: A study of Nigeria's telecommunication industry. *Journal of Research in Humanities and Social Science*, 5(5), 55-63.
- Jyachandran, M. (2013). Syringic acid, a novel natural phenolic acid, normalizes hyperglycemia with special reference to glycoprotein components in experimental diabetic rats. *Journal of Acute Disease*, 2, 4.
- Li, J., & Wu, X. (2022). Technology-driven cross-border M&A, CSR, and enterprise innovation performance—Evidence from China. *Sustainability*, 14(7), 4169.
- Maduka, C.M. (2010). Impact of corporate social responsibility on organizational performance of telecommunication firms in Rivers State Nigeria. Unpublished dissertation, Department of Management, Faculty of Management Sciences, University of Port Harcourt Nigeria.
- Nsikan, J. E., Umoh, V. A., & Bariate, M. (2015) Corporate social responsibility and mobile telecommunication competitiveness in Nigeria: The case of MTN Nigeria. *American Journal of Industrial and Business Management*, 5, 527-537.
- Obiekwe, O. & Nwaeke, L.I. (2019). Impact of corporate social responsibility practices and disclosures on organizational survival. *International Journal of Social Sciences and Management*, 5(2), 117126
- Ohiokha, F. I. Odion O. A. & Akhalumeh, P. B. (2016). Corporate social responsibility and corporate financial



- performance: the Nigerian experience. *International Journal of Accounting Research* 2(10), 34-43.
- Saale, N. B. (2005). Business and environment. Port Harcourt: Royal Ventures
- Sands. (2015). Corporate Social Responsibility, Sands for Singapore.
- Sarstedt, M., Wilczynski, P. & Melewar, T. C. (2012). Measuring reputation in global markets—A comparison of reputation measures' convergent and criterion validities", *Journal of World Business*, 1-11.
- Schwartz, P. (2000). When good companies do bad things. Wiley, Inc.
- Siddiq, S. & Javed, S. (2014). Impact of CSR on organizational performance. *European Journal of Business Management* 6(27), 40-45.
- Singh, K. T. & Singh, M. S. (2013). Ethics in corporate social responsibility. *IOSR Journal of Business and Management*, 9 (2) (Mar. - Apr. 2013),16-21.
- Thompson, D., & Cumberbatch, D. (2019). The role of technology in corporate social responsibility: A systematic literature review. *Journal of Technology Management for Growing Economies*, 10(2), 31-45.
- Wael, J. A. (2014). The effect of corporate social responsibility toward the local community and employees on orange telecom company profit. *International Journal of Humanities and Social Science*, 4(13), 198-203.