

1 ***Influence of Entrepreneurial Ecosystem on the Innovation Performance of SMEs in Abuja,***
2 ***Nigeria.***

3 *This study examined the influence of entrepreneurial ecosystem on the innovation performance*
4 *of SMEs in Abuja, Nigeria. A quantitative research design was employed, using a structured*
5 *questionnaire to collect primary data from SME owners and managers across major commercial*
6 *zones. The population consisted of 2,900 staff, and Using Taro Yamane's formula, a sample size*
7 *of 421 was determined, with 379 valid responses collected, yielding a 90% response rate. Data*
8 *were analyzed using descriptive statistics and simple linear regression via SPSS Version 27.0.*
9 *Findings revealed that access to finance has a statistically significant positive effect on product*
10 *innovation. Similarly, entrepreneurial networking and support systems significantly influenced*
11 *process innovation. The study concluded that both financial and non-financial ecosystem*
12 *elements are critical drivers of innovation performance among SMEs in Abuja. It recommends*
13 *that policymakers enhance access to credit through targeted financing schemes, while*
14 *strengthening institutional support such as incubators, mentorship programs, and business*
15 *associations. By integrating financial inclusion with capacity-building initiatives, stakeholders*
16 *can foster a more resilient and innovative SME sector, contributing to economic diversification*
17 *and sustainable development in Nigeria's capital city.*

18 *Keywords: Entrepreneurial Ecosystem, Access to Finance, Entrepreneurial Networking, Support*
19 *Systems, Innovation Performance, Product Innovation, Process Innovation, SMEs, Abuja,*
20 *Nigeria.*

21 **1INTRODUCTION**

22 Entrepreneurial ecosystems represent a complex interplay of interconnected elements including
23 institutions, policies, finance, human capital, networks, and culture that collectively foster
24 entrepreneurial activity and firm-level innovation (Stam & van de Ven, 2021). At their core,
25 these ecosystems provide the enabling environment within which entrepreneurs access resources,
26 collaborate, and develop novel solutions to market challenges. Innovation performance,
27 particularly among Small and Medium Enterprises (SMEs), is widely recognized as a critical
28 determinant of competitiveness and long-term sustainability in dynamic markets (OECD, 2023).
29 Product innovation (the introduction of new or significantly improved goods or services) and
30 process innovation (the implementation of new or improved production or delivery methods)
31 serve as key indicators of this performance (Eurostat, 2022).

32 Globally, empirical evidence underscores the pivotal role of entrepreneurial ecosystem
33 components in enhancing SME innovation. Access to finance encompassing formal credit,
34 venture capital, government grants, and informal funding enable firms to invest in research,
35 development, and market testing (Beck et al., 2022). Similarly, entrepreneurial networking and
36 support systems including incubators, accelerators, industry associations, and mentorship
37 platforms facilitate knowledge exchange, reduce uncertainty, and stimulate collaborative
38 innovation (Autio et al., 2018). Countries with mature ecosystems, such as the United States,
39 Germany, and Singapore, consistently outperform others in SME-driven innovation metrics,
40 largely due to robust institutional support and inclusive financial infrastructure (Global
41 Entrepreneurship Monitor [GEM], 2023).

42 In the West African subregion, however, SMEs operate within comparatively underdeveloped
43 entrepreneurial ecosystems. Despite contributing over 80% of employment and nearly 50% of

44 GDP in the region (West African Monetary Zone [WAMZ], 2022), SMEs face persistent
45 constraints in accessing finance and structured support networks. High collateral requirements,
46 short loan tenures, and limited venture capital restrict investment in innovation (African
47 Development Bank [AfDB], 2023). Moreover, weak institutional frameworks and fragmented
48 entrepreneurial networks hinder knowledge spillovers and collective learning (Osei-Bonsu &
49 Amankwah-Amoah, 2022). Consequently, innovation performance among West African SMEs
50 remains low, with most firms engaged in incremental rather than radical innovation (UNCTAD,
51 2023).

52 Nigeria, as Africa's largest economy and the most populous nation in West Africa, exemplifies
53 both the potential and the challenges facing SME-driven innovation. SMEs constitute
54 approximately 96% of all businesses and employ over 60% of the national workforce (National
55 Bureau of Statistics [NBS], 2023). Yet, their innovation capacity is hampered by systemic
56 deficiencies in the entrepreneurial ecosystem. The Central Bank of Nigeria (CBN, 2023) reports
57 that less than 25% of SMEs have access to formal credit, with many relying on personal savings
58 or informal lenders. Furthermore, while numerous government and private-sector initiatives such
59 as the Bank of Industry (BOI) interventions and the YouWIN! Program aim to bolster
60 entrepreneurial support, their reach and impact remain uneven due to bureaucratic bottlenecks
61 and poor coordination (Oladipo & Akinlabi, 2024).

62 Within this national context, Abuja the Federal Capital Territory (FCT) emerges as a strategic
63 focal point for examining the nexus between ecosystem components and SME innovation. As a
64 planned city and administrative hub, Abuja hosts a concentration of policy institutions,
65 international organizations, and educational establishments that could theoretically foster a
66 conducive entrepreneurial environment. Recent studies indicate a growing presence of tech hubs,
67 innovation labs, and business development service providers in the city (Abuja Innovation Hub,
68 2024; FCT-MSME Development Agency, 2023). Nevertheless, evidence suggests that many
69 SMEs in Abuja still struggle to translate these ecosystem advantages into tangible innovation
70 outcomes. A 2024 survey by the Abuja Chamber of Commerce and Industry revealed that only
71 32% of surveyed SMEs had introduced a new product or process in the past two years, citing
72 inadequate financing and weak networking opportunities as primary barriers.

73 Given this backdrop, understanding how specific components of the entrepreneurial
74 ecosystem namely access to finance and entrepreneurial networking and support
75 systems influence product and process innovation among SMEs in Abuja is both timely and
76 policy-relevant. This study seeks to fill a critical gap in the literature by providing empirical,
77 location-specific insights that can inform targeted interventions to strengthen Nigeria's
78 innovation ecosystem at the subnational level.

79 **Statement of the Problem**

80 Despite global consensus that robust entrepreneurial ecosystem particularly access to finance and
81 entrepreneurial networking and support systems significantly enhance the innovation
82 performance of SMEs, this linkage remains underexploited in many developing economies. In
83 ideal ecosystems, such as those in Singapore or Estonia, SMEs benefit from seamless access to
84 credit, venture capital, mentorship, incubators, and collaborative networks that directly catalyze
85 product and process innovation (Autio et al., 2018; OECD, 2023). These components reduce
86 uncertainty, lower transaction costs, and enable knowledge spillovers, thereby enhancing firms'

87 capacity to develop new products or improve operational efficiency (Stam & van de Ven, 2021).
88 When effectively aligned, ecosystem enablers create a virtuous cycle wherein innovation drives
89 competitiveness, job creation, and economic resilience.

90 In stark contrast, SMEs in Abuja, Nigeria, operate within a fragmented and underperforming
91 entrepreneurial ecosystem that severely constrains their innovation capabilities. Although SMEs
92 constitute 96% of businesses in Nigeria and contribute over 60% of employment (NBS, 2022),
93 fewer than 25% of them have access to formal financing, with collateral requirements and high
94 interest rates cited as major barriers (EFInA, 2023). Moreover, while Abuja hosts institutions like
95 the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), the Abuja
96 Enterprise Agency (AEA), and several tech hubs, their reach and coordination remain limited. A
97 2022 World Bank diagnostic noted that only 28% of Nigerian SMEs introduced any form of
98 innovation (product or process) in the preceding three years far below the Sub-Saharan African
99 average of 42% (World Bank, 2022). In Abuja specifically, anecdotal and survey evidence from
100 the Abuja Chamber of Commerce (2021) indicates that weak networking opportunities and
101 inconsistent policy implementation hinder knowledge exchange and market-responsive
102 innovation among local SMEs.

103 This disconnect between ecosystem potential and innovation outcomes reflects a critical gap in
104 both theory and practice. While existing models (e.g., Isenberg's ecosystem framework and the
105 systems of innovation theory) posit strong linkages between ecosystem enablers and firm-level
106 innovation, empirical validation in Nigeria's unique institutional context particularly in its capital
107 city is scarce (Ogundana et al., 2023). Without evidence-based understanding of how access to
108 finance and support networks specifically influence product and process innovation among
109 Abuja's SMEs, policymakers risk designing generic interventions that fail to address root
110 constraints. If unaddressed, this problem perpetuates low productivity, stifles inclusive economic
111 growth, and undermines Nigeria's broader goals under the National Policy on Micro, Small and
112 Medium Enterprises (2021) and the African Continental Free Trade Area (AfCFTA)
113 competitiveness agenda.

114 **Research Questions**

- 115 i. To what extent does access to finance influence product innovation among SMEs in
116 Abuja?
- 117 ii. How does entrepreneurial networking and support systems affect process innovation
118 among SMEs in Abuja?

119 **Research Objectives**

- 120 i. To examine the influence of access to finance on product innovation of SMEs in Abuja.
- 121 ii. To assess the effect of entrepreneurial networking and support systems on process
122 innovation of SMEs in Abuja.

123 **Statement of Hypotheses**

- 124 i. H_{01} : Access to finance has no significant influence on product innovation among SMEs in
125 Abuja.

126 ii. H₀₂: Entrepreneurial networking and support systems have no significant effect on
127 process innovation among SMEs in Abuja.

128 **LITERATURE REVIEW**

129 **Introduction**

130 **Conceptual Framework**

131 **Concepts of Entrepreneurial Ecosystem**

132 Entrepreneurial ecosystem components refer to the interconnected institutional, financial, human,
133 and social structures that collectively shape the environment in which entrepreneurs operate and
134 innovate (Stam & van de Ven, 2021). Among these, access to finance and entrepreneurial
135 networking and support systems are two of the most critical enablers for small and medium
136 enterprises (SMEs).

137 **Access to finance**

138 Access to finance encompasses the availability, affordability, and adequacy of financial
139 resources such as bank loans, venture capital, angel investment, government grants, and informal
140 credit that allow SMEs to fund research, prototype development, market testing, and scaling
141 (Beck et al., 2022). In well-functioning ecosystems like those in Germany or Singapore,
142 diversified financing mechanisms significantly reduce the risk of capital constraints, enabling
143 firms to pursue long-term innovation strategies (OECD, 2023). Conversely, in environments
144 where credit markets are underdeveloped or biased against small firms as is common in many
145 developing economies SMEs struggle to transform ideas into marketable innovations, thereby
146 stifling productivity and growth (Ayyagari et al., 2021).

147 **Entrepreneurial networking and support systems**

148 Equally vital are entrepreneurial networking and support systems, which include formal and
149 informal structures such as business incubators, accelerators, industry associations, mentorship
150 programs, innovation hubs, and peer-to-peer learning platforms. These systems facilitate
151 knowledge transfer, resource pooling, and collaborative problem-solving, thereby reducing
152 information asymmetries and transaction costs (Autio et al., 2018). Through networking,
153 entrepreneurs gain exposure to new technologies, market trends, and best practices, which
154 directly influence their capacity to innovate. For instance, tech hubs in Lagos and Nairobi have
155 demonstrated how co-location and structured mentorship can accelerate digital innovation among
156 startups (Motoch & Mwangi, 2022). Moreover, support systems often act as intermediaries
157 between policymakers and entrepreneurs, ensuring that regulatory frameworks and public
158 interventions are responsive to ground-level needs (Isenberg, 2011). The strength of these
159 networks is not merely in their existence but in their inclusivity, coordination, and relevance to
160 local economic contexts.

161 The interplay between finance and networking within the entrepreneurial ecosystem creates
162 synergistic effects that amplify innovation outcomes. Access to capital may be insufficient
163 without the strategic guidance and market intelligence provided by robust support networks,
164 while strong networks may fail to yield results if firms lack the financial means to act on

165 opportunities (Motoch& Mwangi, 2022). This integrated perspective aligns with the systemic
166 view of entrepreneurial ecosystems, where no single component operates in isolation; rather,
167 their collective functionality determines entrepreneurial success (Stam & van de Ven, 2021).
168 Empirical studies confirm that ecosystems characterized by both deep financial markets and
169 dense collaborative networks such as those in Estonia or Rwanda consistently outperform others
170 in SME-driven innovation metrics (World Bank, 2022). Therefore, for SMEs in emerging
171 economies like Nigeria, strengthening both dimensions simultaneously is essential to
172 overcoming structural barriers to innovation.

173 **Innovation Performance of SMEs**

174 Innovation performance refers to the measurable outcomes of a firm's efforts to introduce new or
175 significantly improved products, processes, marketing methods, or organizational practices
176 (OECD & Eurostat, 2022).

177 **product innovation**

178 For SMEs, product innovation defined as the development and market introduction of new or
179 enhanced goods and services is a primary driver of competitive differentiation and market
180 expansion. Successful product innovation enables SMEs to meet evolving customer demands,
181 enter new markets, and command premium pricing (Damanpour& Aravind, 2023). In dynamic
182 sectors such as agro-processing, fintech, and renewable energy, product innovation is often the
183 key to survival and scalability. For example, Nigerian fintech SMEs like Flutterwave and Opay
184 have leveraged digital product innovation to disrupt traditional financial services, demonstrating
185 how such innovation can yield both commercial success and societal impact (Adeola & Evans,
186 2022).

187 **process innovation**

188 Closely related is process innovation, which involves the implementation of new or improved
189 methods in production, logistics, delivery, or administrative systems to enhance efficiency,
190 reduce costs, or improve quality (OECD & Eurostat, 2022). Unlike product innovation, which is
191 often customer-facing, process innovation operates internally but is equally critical for SME
192 sustainability. Efficient production processes allow SMEs to compete on cost, respond flexibly to
193 supply chain disruptions, and allocate resources toward further innovation. In manufacturing
194 SMEs in Nigeria, for instance, adopting automated inventory systems or lean production
195 techniques has been shown to increase output by up to 30% while reducing waste (Ogundana et
196 al., 2023). However, such improvements require upfront investment and technical know-
197 how resources that are often scarce without supportive ecosystem components.

198 Together, product and process innovation constitute the core dimensions of innovation
199 performance that determine an SME's adaptability, resilience, and growth trajectory. Empirical
200 evidence consistently links high innovation performance to improved firm-level outcomes,
201 including revenue growth, employment generation, and export propensity (Gunday et al., 2021).
202 At the macro level, SME-driven innovation contributes to national productivity, industrial
203 diversification, and technological catch-up particularly critical for developing economies seeking

204 to move beyond resource dependence (World Bank, 2022). Yet in Nigeria, innovation
205 performance among SMEs remains markedly low: only 28% reported introducing any form of
206 innovation between 2019 and 2022, with even fewer engaging in radical or technologically
207 intensive innovations (World Bank Enterprise Surveys, 2022). This underperformance
208 underscores the urgency of understanding how ecosystem enablers—particularly access to finance
209 and support networks—can be leveraged to unlock the latent innovative potential of SMEs in urban
210 centers like Abuja.

211 **Theoretical framework**

212 This study underpinned two theories that collectively explain the relationship between
213 entrepreneurial ecosystem and the innovation performance of SMEs: the Entrepreneurial
214 Ecosystem Theory and the Resource-Based View (RBV) of the firm. Together, these theories
215 provide a robust lens for understanding how external ecosystem enablers (such as access to
216 finance and networking) interact with internal firm capabilities to drive product and process
217 innovation among SMEs in emerging economies like Nigeria.

218 **Entrepreneurial Ecosystem Theory**

219 The Entrepreneurial Ecosystem Theory, primarily advanced by Isenberg (2011) and later refined
220 by Stam and van de Ven (2021), posits that entrepreneurship does not occur in a vacuum but is
221 deeply embedded in a context-specific system of interdependent actors, institutions, policies, and
222 resources. This theory emphasizes that the performance of individual firms—especially SMEs—is
223 significantly shaped by the quality and configuration of their surrounding ecosystem. Key
224 components such as finance, human capital, culture, support services, and markets function
225 synergistically to either facilitate or constrain entrepreneurial activity and innovation. In the
226 Nigerian context, where institutional voids and market inefficiencies are prevalent, the
227 ecosystem perspective helps explain why many SMEs in Abuja, despite possessing
228 entrepreneurial intent, struggle to innovate without adequate external support structures. The
229 theory further suggests that ecosystems are not static; rather, they evolve through feedback loops
230 between entrepreneurs and their environment. Thus, improving access to finance and
231 strengthening networking platforms can catalyze a virtuous cycle of innovation, learning, and
232 growth (Autio et al., 2018; Motoch & Mwangi, 2022).

233 **Resource-Based View (RBV)**

234 Complementing this external perspective, the Resource-Based View (RBV), originally
235 articulated by Barney (1991), focuses on the internal resources and capabilities that firms
236 leverage to achieve sustainable competitive advantage. While RBV traditionally emphasizes
237 internal assets (e.g., skilled labor, proprietary technology), scholars have extended it to include
238 externally acquired resources—particularly in resource-constrained settings (Sirmon et al., 2011).
239 For SMEs in Abuja, access to finance represents a critical *financial resource*, while
240 entrepreneurial networks provide social and knowledge-based resources that can be bundled,
241 leveraged, and transformed into innovative outputs. According to RBV, innovation performance
242 (both product and process) emerges when firms effectively mobilize and reconfigure these
243 resources in ways that are valuable, rare, inimitable, and non-substitutable (VRIN criteria). In

244 this light, the entrepreneurial ecosystem does not directly produce innovation but enables SMEs
245 to acquire and deploy the resources necessary to do so. The integration of RBV with ecosystem
246 theory thus offers a dual-layered explanation: the ecosystem supplies the inputs, while the firm's
247 internal capacity determines how effectively those inputs are converted into innovation outcomes
248 (Adeola & Evans, 2022; Ogundana et al., 2023).

249 Together, these theories justify the hypothesized relationship between the independent and
250 dependent variables in this study. The Entrepreneurial Ecosystem Theory explains *why* access to
251 finance and support networks matter at the systemic level, while RBV clarifies *how* SMEs
252 internalize these ecosystem components to generate innovation. This theoretical synergy is
253 particularly relevant in Abuja city with nascent but growing ecosystem infrastructure where the
254 gap between resource availability and innovation output may stem not only from ecosystem
255 deficiencies but also from firms' limited capacity to exploit available resources. By grounding
256 the study in these frameworks, the research moves beyond descriptive analysis to offer a
257 mechanism-based understanding of SME innovation dynamics in Nigeria's capital territory.

258 **Empirical Review**

259 Dare and Ezeamuzie (2024) examined the effect of entrepreneurship education on SME
260 performance in Abuja, Nigeria, with a focus on job creation and business growth; using a survey
261 research design, they collected primary data from 232 SME managers selected via the Taro
262 Yamane formula and analyzed it using Ordinary Least Squares (OLS) regression. They found
263 that practical entrepreneurship education significantly improved SME performance and
264 recommended government-funded training, provision of instructional materials, and institutional
265 strengthening. However, the study did not consider broader entrepreneurial ecosystem
266 components particularly access to finance or networking systems and thus overlooked their
267 potential influence on innovation performance. (Dare & Ezeamuzie, 2024)

268 Agbaeze, and et al (2020) investigated how entrepreneurial innovation affected solid waste
269 recycling capacity in Abuja; employing a questionnaire-based survey and regression analysis,
270 they reported a statistically significant positive relationship ($p < 0.01$) between innovation and
271 recycling efficiency and urged the government to institutionalize support for eco-
272 entrepreneurship. Despite its contribution, the study was narrowly focused on the waste
273 management sector and did not assess general SME innovation outcomes such as product or
274 process innovation across industries, nor did it examine ecosystem enablers like finance or
275 support networks. (Agbaeze, Ofobruku, & Chukwu, 2020)

276 Gumel and Bardai (2021) identified barriers preventing Nigerian SMEs from accessing financial
277 institution funding; using a mixed-methods approach involving 296 survey respondents and 15
278 semi-structured interviews, they uncovered four key constraints: inadequate access to financial
279 institutions, low owner education, exorbitant interest rates, and gender bias, and proposed policy
280 and regulatory reforms to ease financing. Although the study thoroughly diagnosed financing
281 barriers, it did not empirically test how improved access to finance translates into measurable
282 innovation outcomes such as new products or improved processes among SMEs. (Gumel
283 & Bardai, 2021)

284 Abdullahi, and et al (2025) assessed how economic, political, and technological aspects of the
285 business environment influenced SME performance in Abuja; using a descriptive survey of 200
286 firms and regression analysis, they found that financial constraints, policy instability, and poor
287 digital infrastructure negatively affected growth and recommended economic stabilization and
288 enhanced digital literacy. Nevertheless, while “access to finance” was mentioned as a challenge,
289 the study treated it as a generic input without linking it to specific dimensions of innovation
290 performance, and it omitted any analysis of entrepreneurial networking or support systems.
291 (Abdullahi, Odeh, & Alaga, 2025)

292 Aliyu, and et al (2019) explored the mediating role of innovation between access to finance and
293 business performance among women entrepreneurs in Northwestern Nigeria; using PLS-SEM on
294 survey data from 576 respondents, they confirmed that innovation partially mediated the
295 finance–performance relationship and advocated for integrated financial and innovation support.
296 However, the study was limited to women-owned MSMEs in one geopolitical zone, excluded
297 male entrepreneurs, and did not focus on Abuja or examine the role of entrepreneurial
298 networking and support systems in enabling innovation. (Aliyu, Ahmad, & Nordin, 2019)

299 Adegboye and Iweriebor (2018) analyzed whether access to finance enhanced SME innovation
300 and productivity in Nigeria using the World Bank Enterprise Survey and logit regression; they
301 found that bank credit significantly boosted product, process, and organizational
302 innovation though surprisingly associated with lower productivity and recommended targeted
303 external financing mechanisms. Despite its national relevance, the study relied on aggregate
304 secondary data that masked subnational variations and offered no granular insights into Abuja’s
305 unique ecosystem or the role of non-financial support structures like mentorship and networking
306 in driving innovation. (Adegboye & Iweriebor, 2018)

307 Job Adah and et al (2025) studied the impact of fintech specifically mobile banking on SME
308 financial inclusion in Abuja; using a descriptive survey of 385 firms and linear regression, they
309 concluded that mobile banking significantly improved account access and usage and
310 recommended user-friendly digital platforms and digital literacy programs. However, the study
311 stopped at financial inclusion as an outcome and did not investigate whether such inclusion led
312 to actual innovation performance, such as the development of new products or the adoption of
313 improved processes among SMEs. (Job Adah, Dare, & Ndaman, 2025)

314 **Study Gap**

315 Despite growing empirical interest in SME performance in Abuja, a critical research gap persists
316 in understanding how specific components of the entrepreneurial ecosystem particularly access to
317 finance and entrepreneurial networking and support systems jointly influence the two core
318 dimensions of innovation performance: product and process innovation. Existing studies have
319 examined related but fragmented aspects: Dare and Ezeamuzie (2024) focused on
320 entrepreneurship education, Agbaeze, Ofobruku, and Chukwu (2020) restricted innovation to
321 waste recycling, Gumel and Bardai (2021) identified financing barriers without linking them to
322 innovation outcomes, and Abdullahi, Odeh, and Alaga (2025) treated finance as a generic
323 environmental constraint. While Adegboye and Iweriebor (2018) established a national-level link

324 between finance and innovation, they used aggregated secondary data that obscured Abuja-
 325 specific dynamics and omitted networking. Similarly, Aliyu, Ahmad, and Nordin (2019) limited
 326 their sample to women entrepreneurs in Northwestern Nigeria, and Job Adah, Dare, and Ndaman
 327 (2025) equated fintech adoption with financial inclusion without measuring actual innovation
 328 performance. Consequently, no study has simultaneously and empirically tested the combined
 329 effect of access to finance and entrepreneurial networking on both product and process
 330 innovation among SMEs in Abuja, creating a clear theoretical and contextual gap that this study
 331 seeks to fill.

332 **METHODOLOGY**

333 This study employed a descriptive survey research design to examine the influence of
 334 entrepreneurial ecosystem access to finance and entrepreneurial networking and support
 335 systemson the innovation performance of SMEs in Abuja, Nigeria. The target population
 336 consisted of 2,900 SME managers and employees across ten major commercial clusters
 337 including Garki, Wuse, Maitama, Gwarinpa, Jabi, Nyanya, Kubwa, CBD, Lugbe, and Karu. A
 338 sample size of 421 was determined using Yamane’s formula ($n = 351$) with an additional 20%
 339 buffer for non-response, and participants were selected through simple random sampling to
 340 ensure representativeness. Primary data were collected via a structured five-point Likert scale
 341 questionnaire administered to SME owners and managers, supplemented by key informant
 342 interviews with business support officers from institutions like the Abuja Enterprise Agency
 343 (AEA). The questionnaire captured biodata and responses on variables such as product
 344 innovation, process innovation, access to finance, and networking systems. Data analysis was
 345 conducted using descriptive statistics and inferential techniques, specifically regression analysis,
 346 with SPSS Version 27.0. The study model was specified as $PI = \alpha + \beta_1AF + \beta_2ENS + \varepsilon$ and POI
 347 $= \alpha + \beta_1AF + \beta_2ENS + \varepsilon$, where PI and POI represent product and process innovation,
 348 respectively. Content validity and reliability were confirmed with Cronbach’s Alpha values
 349 ranging from 0.78 to 0.88, all above the recommended threshold of 0.70, indicating high internal
 350 consistency of the measurement instruments.

351 **DATA PRESENTATION AND ANALYSIS**

352 **Introduction**

353 This chapter discussed the opinions of the study participants as obtained by distributing copies of
 354 the questionnaire. Frequence statisticswas used for the analysis, and Statistical Package for
 355 Social Science (SPSS) 27 of linear Regression was used to evaluate the proposed hypotheses.

356 **Administration of Questionnaire**

357 A well-structure questionnaire was administered to some selected SMEs and staff for this study.
 358 However, not all the copies distributed were returned as envisaged. rate.

359 **Table4.1 Response Rate**

Questionnaire	Frequency	Percentage (%)
Response	379	90%
Non-response	42	10%
Total	421	100%

360 **Source: field survey, 2025**

361 The table presents the response rate for the administered questionnaire, showing that out of a
 362 total of 421 distributed instruments, 379 respondents completed and returned the questionnaire,
 363 representing 90% of the total, while 42 (10%) did not respond. This high response rate of 90%
 364 indicates a strong level of engagement from the target participants and enhances the reliability
 365 and representativeness of the data collected. Such a robust response minimizes non-response bias
 366 and increases confidence in the generalizability of the findings, particularly in the context of
 367 studying SMEs in Abuja, where access and willingness to participate can sometimes be
 368 challenging. The low non-response rate further supports the validity of subsequent statistical
 369 analyses and conclusions drawn from the dataset.

370 **Tests of Hypotheses**
 371 **Test of Hypothesis One**

372 H₀₁: Access to finance has no significant influence on product innovation among SMEs in Abuja.

Table 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 ^a	.286	.285	.48831

a. Predictors: (Constant), AF

373 *Source: SPSS Output Version 27.0*

374 Table 1 presents the model summary for the regression analysis examining the influence of
 375 Access to Finance (AF) on innovation performance among SMEs in Abuja. The model yields an
 376 R value of 0.535, indicating a moderate positive linear relationship between AF and the
 377 dependent variable (innovation performance). The R Square value of 0.286 suggests that
 378 approximately 28.6% of the variation in innovation performance is explained by access to
 379 finance, while the Adjusted R Square of 0.285 confirms that this explanatory power remains
 380 stable after adjusting for the number of predictors in the model. The standard error of the
 381 estimate (0.48831) reflects the average distance that observed values fall from the regression
 382 line, suggesting a reasonably acceptable level of prediction accuracy. Overall, the model
 383 demonstrates that access to finance is a statistically relevant, though partial, predictor of
 384 innovation performance consistent with prior findings such as Adegboye and Iweriebor (2018),
 385 who reported that external finance significantly drives product and process innovation among
 386 Nigerian SMEs.

Table 2 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.996	1	35.996	150.959	.000 ^b
	Residual	89.657	376	.238		
	Total	125.654	377			

a. Dependent Variable: PI

b. Predictors: (Constant), AF

387 *Source: SPSS Output Version 27.0*

388 Table 2 presents the ANOVA results for the regression model examining the effect of Access to
 389 Finance (AF) on Product Innovation (PI) among SMEs in Abuja. The regression model is
 390 statistically significant, as indicated by the F-value of 150.959 with 1 and 376 degrees of
 391 freedom and a p-value (Sig.) of .000, which is well below the conventional alpha level of 0.05.
 392 This confirms that the model reliably explains a significant portion of the variance in product
 393 innovation. The sum of squares for regression (35.996) reflects the explained variation, while the
 394 residual sum of squares (89.657) represents unexplained variation. Given the highly significant
 395 F-statistic, the null hypothesis—that access to finance has no effect on product innovation—is
 396 rejected. This result aligns with findings from Adegboye and Iweriebor (2018), who similarly
 397 reported that access to finance significantly drives innovation among Nigerian SMEs, reinforcing
 398 the conclusion that financial access is a critical enabler of product innovation in the Abuja
 399 context.

Table 3 Coefficients^a

Model	Unstandardized Coefficients		Standardized	t	Sig.	
	B	Std. Error	Coefficients Beta			
1	(Constant)	1.835	.179	10.246	.000	
	AF	.557	.045	.535	12.287	.000

a. Dependent Variable: PI

400 **Source:** SPSS Output Version 27.0

401 Table 3 presents the regression coefficients for the relationship between Access to Finance (AF)
 402 and Product Innovation (PI) among SMEs in Abuja. The unstandardized coefficient (B) for AF is
 403 0.557, with a standard error of 0.045, indicating that a one-unit increase in access to finance is
 404 associated with a 0.557-unit increase in product innovation, holding other factors constant. The
 405 standardized coefficient (Beta) of 0.535 confirms a moderate-to-strong positive effect, aligning
 406 with the R value in Table 1. This relationship is highly statistically significant ($t = 12.287$, $p =$
 407 $.000$), leading to the rejection of the null hypothesis that access to finance has no effect on
 408 product innovation. The constant (intercept) of 1.835 is also significant ($p = .000$), suggesting a
 409 baseline level of product innovation even when access to finance is zero. These findings
 410 empirically support the conclusion that access to finance is a key driver of product innovation
 411 among SMEs in Abuja, consistent with Adegboye and Iweriebor (2018), who similarly found
 412 that external financing significantly enhances SME innovation in Nigeria.

413 **Test of Hypothesis two**

414 H_{02} : Entrepreneurial networking and support systems have no significant effect on process
 415 innovation among SMEs in Abuja.

Table 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723 ^a	.523	.522	.34980

a. Predictors: (Constant), ENS

416 **Source:** SPSS Output Version 27.0

417 Table 4 presents the model summary for the regression analysis examining the influence of
 418 Entrepreneurial Networking and Support Systems (ENS) on process innovation among SMEs in
 419 Abuja. The model yields an R value of 0.723, indicating a strong positive linear relationship
 420 between ENS and the dependent variable. The R Square value of 0.523 reveals that
 421 approximately 52.3% of the variation in process innovation is explained by entrepreneurial
 422 networking and support systems, while the Adjusted R Square of 0.522 confirms the model's
 423 stability after accounting for predictor variables. The standard error of the estimate (0.34980) is
 424 relatively low, suggesting a high level of precision in the model's predictions. This indicates that
 425 ENS such as participation in business associations, access to mentorship, and engagement with
 426 support programs plays a substantial role in enhancing operational efficiency and process
 427 improvements within SMEs in Abuja. These findings align with Aliyu et al. (2019), who
 428 emphasized the mediating role of innovation in entrepreneurial success, and underscore the
 429 importance of non-financial ecosystem components in driving firm-level innovation outcomes.

Table 5 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	50.504	1	50.504	412.759	.000 ^b
	Residual	46.007	376	.122		
	Total	96.511	377			

a. Dependent Variable: POI

b. Predictors: (Constant), ENS

430 **Source:** SPSS Output Version 27.0

431 Table 5 presents the ANOVA results for the regression model examining the influence of
 432 Entrepreneurial Networking and Support Systems (ENS) on Process Innovation (POI) among
 433 SMEs in Abuja. The model is statistically significant, as indicated by an F-value of 412.759 with
 434 1 and 376 degrees of freedom and a p-value (Sig.) of .000, which is far below the 0.05 threshold,
 435 confirming that ENS is a highly significant predictor of process innovation. The sum of squares
 436 for regression (50.504) represents the variation in process innovation explained by ENS, while
 437 the residual sum of squares (46.007) indicates unexplained variation. Given the large F-statistic
 438 and high significance level, the null hypothesis that entrepreneurial networking and support
 439 systems have no effect on process innovation is decisively rejected. This finding aligns with
 440 Aliyu et al. (2019), who emphasized the role of support systems in enhancing SME performance
 441 through innovation, and underscores the critical importance of non-financial ecosystem
 442 components such as mentorship, training, and business networks in driving operational
 443 improvements within SMEs in Abuja.

Table 6 Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
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		B	Std. Error	Beta		
1	(Constant)	1.482	.126		11.763	.000
	ENS	.632	.031	.723	20.316	.000

a. Dependent Variable: POI

444 **Source:** SPSS Output Version 27.0

445 Table 6 presents the regression coefficients for the relationship between Entrepreneurial
 446 Networking and Support Systems (ENS) and Process Innovation (POI) among SMEs in Abuja.
 447 The unstandardized coefficient (B) for ENS is 0.632, with a standard error of 0.031, indicating
 448 that a one-unit increase in ENS is associated with a 0.632-unit increase in process innovation,
 449 holding other factors constant. The standardized coefficient (Beta) of 0.723 suggests a strong
 450 positive effect, aligning with the R value in Table 4. This relationship is highly statistically
 451 significant, as evidenced by a t-value of 20.316 and a p-value (Sig.) of .000, leading to the
 452 rejection of the null hypothesis that ENS has no effect on process innovation. The constant
 453 (intercept) of 1.482 is also significant ($p = .000$), indicating a baseline level of process innovation
 454 even when ENS is zero. These findings underscore that entrepreneurial networkingsuch as
 455 participation in business associations, mentorship programs, and access to institutional
 456 supportplays a critical role in enhancing operational efficiency and process improvements within
 457 SMEs in Abuja, reinforcing conclusions from Aliyu et al. (2019) and Job Adah et al. (2025) on
 458 the importance of ecosystem support structures in driving innovation.

459 **Summary of Findings**

460 The findings of this study reveal a strong and significant relationship between entrepreneurial
 461 ecosystem and the innovation performance of SMEs in Abuja, Nigeria. Firstly, the study
 462 established that access to finance has a statistically significant positive effect on product
 463 innovation. The findings indicates that SMEs with greater access to credit, grants, and external
 464 funding are more likely to develop and launch new or improved products.

465 Secondly, the results demonstrate that entrepreneurial networking and support systems have a
 466 highly significant positive impact on process innovation. Thefindings showing that participation
 467 in business associations, mentorship programs, and institutional support initiatives enables SMEs
 468 to adopt more efficient production methods, improve service delivery, and streamline internal
 469 operations.

470 Together, these findings affirm that both financial and non-financial dimensions of the
 471 entrepreneurial ecosystemaccess to finance and networking/support systemsare critical drivers of
 472 innovation among SMEs in Abuja. While access to finance primarily fuels product innovation,
 473 entrepreneurial networks and support structures are pivotal for advancing process innovation.
 474 These insights underscore the need for a holistic policy approach that strengthens not only
 475 financial inclusion but also institutional frameworks that foster collaboration, knowledge sharing,
 476 and technical assistance for SMEs in Nigeria's capital city.

477 **Discussion of the Findings**

478 The findings of this study provide compelling empirical evidence that entrepreneurial ecosystem
479 specifically access to finance (AF) and entrepreneurial networking and support systems
480 (ENS) play a pivotal role in shaping the innovation performance of SMEs in Abuja, Nigeria. The
481 results confirm that both financial and non-financial dimensions of the ecosystem significantly
482 influence product and process innovation, respectively, reinforcing the strategic importance of a
483 holistic and supportive environment for SME growth and competitiveness.

484 First, the study establishes that access to finance has a statistically significant positive effect on
485 product innovation ($\beta = 0.535$, $p = .000$), accounting for approximately 28.6% of its variance.
486 This finding aligns with Adegboye and Iweriebor (2018), who found that external financing is
487 the strongest driver of all forms of innovation among Nigerian SMEs, particularly in enabling
488 investment in new product development and adoption of foreign technologies. The availability of
489 credit, grants, or equity funding allows SMEs to bear the risks associated with research,
490 prototyping, and market testing activities essential for launching novel goods and services. In the
491 context of Abuja, where many SMEs rely on personal savings or informal loans, limited access
492 to formal finance remains a major constraint to scaling innovative ideas into market-ready
493 products. This underscores the need for targeted financial inclusion policies, such as
494 government-backed loan schemes and venture capital funds tailored to early-stage innovators, as
495 recommended by Gumel and Bardai (2021).

496 Second, the study reveals that entrepreneurial networking and support systems exert a strong and
497 highly significant influence on process innovation ($\beta = 0.723$, $p = .000$), explaining over half
498 (52.3%) of its variation. This suggests that interactions with business associations, participation
499 in incubation programs, mentorship, and training workshops are critical enablers of operational
500 efficiency improvements such as streamlined workflows, better inventory management, and
501 enhanced service delivery. These findings resonate with Aliyu et al. (2019), who emphasized the
502 mediating role of innovation in translating institutional support into improved business
503 performance among women entrepreneurs in Northern Nigeria. Furthermore, Abdullahi, Odeh,
504 and Alaga (2025) highlighted that technological constraints and weak institutional linkages
505 hinder SME performance in Abuja, reinforcing the value of structured networks that facilitate
506 knowledge transfer and digital capability building. For instance, ENS platforms can expose SME
507 owners to best practices in lean production, digital tools, and quality control, thereby catalyzing
508 internal process upgrades even in resource-constrained settings.

509 Collectively, these findings affirm the complementary roles of financial and relational resources
510 within the entrepreneurial ecosystem. While access to finance primarily fuels outward-facing
511 product innovation, entrepreneurial networks and support systems drive inward-facing process
512 innovation through learning, collaboration, and capacity development. This duality supports the
513 integration of the Resource-Based View (RBV) and Entrepreneurial Ecosystem Theory: AF
514 provides the critical financial resources necessary for innovation (RBV), while ENS fosters
515 *social* capital and knowledge spillovers that enhance absorptive capacity and organizational
516 learning (Stam & van de Ven, 2021). By demonstrating how each component uniquely
517 contributes to different dimensions of innovation, this study fills a contextual gap identified in
518 prior literature where national-level analyses (e.g., Adegboye & Iweriebor, 2018) lack urban
519 specificity, and sector-specific studies (e.g., Agbaeze et al., 2020) overlook cross-sectoral
520 innovation dynamics. The results offer actionable insights for policymakers, financial

521 institutions, and SME support agencies in Abuja to design integrated interventions that
522 simultaneously strengthen financing mechanisms and build robust, inclusive entrepreneurial
523 networks to foster a more innovative and resilient SME sector.

524 **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

525 **Summary**

526 This study examined the influence of entrepreneurial ecosystem on the innovation performance of
527 Small and Medium Enterprises (SMEs) in Abuja, Nigeria. Innovation performance was
528 measured through two key dimensions: product innovation (PI) and process innovation (POI).
529 The research aimed to provide empirical insights into how external ecosystem enablers shape
530 innovation outcomes in a rapidly urbanizing African capital city with a growing but fragmented
531 entrepreneurial environment.

532 The study was structured into five chapters. Chapter One established the background by
533 highlighting the critical role of SMEs in economic development and job creation, while
534 identifying persistent gaps in innovation due to systemic constraints within Nigeria's
535 entrepreneurial ecosystem. The problem statement underscored the disconnect between the
536 availability of ecosystem resources and actual innovation outputs among SMEs in Abuja. Clear
537 objectives, research questions, and hypotheses were formulated to investigate the relationships
538 between AF and PI, as well as ENS and POI.

539 Chapter Two presented a comprehensive literature review grounded in theoretical frameworks
540 such as the Entrepreneurial Ecosystem Theory and the Resource-Based View (RBV), which
541 explain how external support structures and internal resource utilization jointly drive innovation.
542 The chapter also synthesized empirical findings from seven recent studies conducted in Abuja
543 and across Nigeria including Dare & Ezeamuzie (2024), Adegboye & Iweriebor (2018), and Aliyu
544 et al. (2019) to contextualize the research and identify a significant gap: the lack of integrated
545 analysis linking both financial and non-financial ecosystem components directly to specific types
546 of innovation at the subnational level.

547 Chapter Three detailed the research methodology, which adopted a quantitative survey design.
548 Primary data were collected using a structured five-point Likert scale questionnaire administered
549 to SME owners and managers across major commercial zones in Abuja, including Wuse, Garki,
550 CBD, Gwarinpa, and Maitama. A total of 421 questionnaires were distributed, with 379 returned
551 and used for analysis, yielding a robust response rate of 90%. Data were analyzed using
552 descriptive statistics, correlation, and multiple regression techniques via SPSS, with all
553 hypotheses tested at the 0.05 significance level.

554 Chapter Four presented the findings, which revealed that access to finance has a statistically
555 significant positive effect on product innovation, indicating that SMEs with better financial
556 access are more likely to develop new or improved products. Similarly, entrepreneurial
557 networking and support systems were found to have a strong and highly significant positive
558 impact on process innovation, demonstrating that engagement with business networks,
559 mentorship programs, and institutional support enhances operational efficiency and internal

560 process improvements. These results affirm that both dimensions of the entrepreneurial
561 ecosystem play distinct yet complementary roles in fostering innovation.

562 **Conclusion**

563 This study concludes that entrepreneurial ecosystem components—specifically access to finance
564 and entrepreneurial networking and support systems—have a significant and distinct influence
565 on the innovation performance of SMEs in Abuja, Nigeria. Access to finance was found to exert
566 a statistically significant positive effect on product innovation, confirming that SMEs with
567 greater access to credit, grants, and external funding are more likely to develop and launch new
568 or improved products. The findings indicate that financial constraints remain a major barrier to
569 product development, underscoring the need for targeted financial inclusion policies and tailored
570 lending mechanisms for SMEs.

571 Furthermore, the study concludes that entrepreneurial networking and support systems
572 significantly enhance process innovation among SMEs. Engagement with business associations,
573 mentorship programs, training workshops, and institutional support agencies facilitates
574 knowledge transfer, operational learning, and the adoption of efficient production and service
575 delivery methods. In the context of Abuja’s evolving entrepreneurial landscape, where many
576 SMEs operate with limited technical expertise, such networks serve as vital platforms for
577 capacity building and process optimization.

578 Together, these conclusions affirm that both financial and relational resources within the
579 entrepreneurial ecosystem are essential for fostering innovation. While access to finance
580 primarily enables outward-facing product development, networking and support systems drive
581 inward-facing operational improvements. For policymakers, financial institutions, and SME
582 development agencies in Abuja, this underscores the importance of adopting an integrated
583 approach—one that expands credit access while simultaneously strengthening institutional
584 frameworks that promote collaboration, mentorship, and continuous learning. By addressing both
585 dimensions, stakeholders can create a more enabling environment for sustainable SME
586 innovation, ultimately contributing to economic diversification and competitiveness in Nigeria’s
587 capital region.

588 **Recommendations**

589 i. Policymakers and financial regulatory bodies in Nigeria should implement targeted
590 interventions to improve SMEs’ access to finance, thereby enhancing product innovation in
591 Abuja. This can be achieved by expanding credit guarantee schemes, establishing innovation-
592 focused loan facilities with favorable terms (e.g., low-interest rates, longer tenures), and
593 encouraging commercial banks and microfinance institutions to develop tailored financial
594 products for SMEs engaged in research, development, and market testing. Additionally,
595 government agencies such as the Central Bank of Nigeria (CBN) and SMEDAN should
596 strengthen existing intervention funds to ensure timely disbursement and broader reach,
597 particularly to startups and technology-driven enterprises. By reducing financial barriers, SMEs
598 will be better positioned to invest in new product design, prototyping, and commercialization.

599 ii. Stakeholders should prioritize the development and institutionalization of entrepreneurial
600 networking and support systems to drive process innovation among SMEs in Abuja. This
601 includes strengthening the capacity of business incubators, innovation hubs, and SME
602 associations to deliver regular training workshops, mentorship programs, and peer-learning
603 forums focused on operational efficiency, digital tools adoption, and lean management practices.
604 The Abuja Enterprise Agency (AEA) and other support institutions should also foster public-
605 private partnerships to create collaborative platforms where entrepreneurs can share best
606 practices, access technical advisory services, and co-develop solutions to common operational
607 challenges. By enhancing knowledge spillovers and building social capital, these networks will
608 empower SMEs to streamline workflows, reduce waste, and improve service delivery leading to
609 sustained process innovation and competitiveness.

610 **Contribution to Knowledge**

611 This study makes a significant contribution to knowledge by providing empirical evidence on the
612 distinct roles of entrepreneurial ecosystem components in driving innovation performance among
613 SMEs in Abuja, Nigeria. It fills a critical research gap by simultaneously examining access to
614 finance and entrepreneurial networking and support systems, demonstrating that while access to
615 finance significantly enhances product innovation (accounting for 28.6% of its variance),
616 networking and support systems have an even stronger influence on process innovation
617 (explaining 52.3% of its variance) a differentiation not previously established in the Nigerian
618 context. Drawing on primary data from multiple commercial zones and employing rigorous
619 regression analysis, the study advances theoretical understanding by applying the Entrepreneurial
620 Ecosystem Theory and Resource-Based View to a real-world urban African setting, validating
621 their relevance in explaining how external resources and relational capital translate into tangible
622 innovation outcomes. The findings offer practical insights for policymakers, financial
623 institutions, and agencies like SMEDAN and the Abuja Enterprise Agency, emphasizing the
624 need for integrated strategies that combine financial inclusion with capacity-building and
625 institutional support to foster sustainable SME innovation and economic growth.

626 **References**

- 627 African Development Bank (AfDB). (2023). *African Economic Outlook 2023: SME Finance in*
628 *West Africa*. <https://www.afdb.org>
- 629 Autio, E., Nambisan, S., Thomas, L. D. W., & Wright, M. (2018). Digital affordances, spatial
630 affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship*
631 *Journal*, 12(1), 72–95. <https://doi.org/10.1002/sej.1266>
- 632 Beck, T., Pamuk, H., Ramrattan, R., & Uras, B. R. (2022). SMEs and innovation: The role of
633 access to finance. *Journal of Financial Intermediation*, 51, 100947.
634 <https://doi.org/10.1016/j.jfi.2021.100947>
- 635 Central Bank of Nigeria (CBN). (2023). *Annual Report on SME Lending and Financial*
636 *Inclusion*. <https://www.cbn.gov.ng>
- 637 Eurostat. (2022). *Community Innovation Survey (CIS) Guidelines*. <https://ec.europa.eu/eurostat>

- 638 FCT-MSME Development Agency. (2023). *Abuja SME Ecosystem Diagnostic Report*. Abuja:
639 FCT Administration.
- 640 Global Entrepreneurship Monitor (GEM). (2023). *Global Report 2022/2023*.
641 <https://www.gemconsortium.org>
- 642 National Bureau of Statistics (NBS). (2023). *National MSME Survey Report*.
643 <https://nigerianstat.gov.ng>
- 644 OECD. (2023). *The Innovation Imperative: Contributing to Productivity, Growth and Well-*
645 *Being*. OECD Publishing. <https://www.oecd.org>
- 646 Oladipo, S. E., & Akinlabi, B. H. (2024). Entrepreneurial support programs and SME innovation
647 in Nigeria: Evidence from policy implementation gaps. *African Journal of Economic and*
648 *Management Studies*, 15(1), 45–62. <https://doi.org/10.1108/AJEMS-03-2023-0098>
- 649 Osei-Bonsu, N., & Amankwah-Amoah, J. (2022). Entrepreneurial ecosystems in West Africa:
650 Challenges and prospects. *Journal of Small Business Management*, 60(S2), 1234–1250.
651 <https://doi.org/10.1111/jsbm.12732>
- 652 tam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business*
653 *Economics*, 56, 809–832. <https://doi.org/10.1007/s11187-019-00234-8>
- 654 UNCTAD. (2023). *Economic Development in Africa Report 2023: Innovation for Industrial*
655 *Development*. United Nations. <https://unctad.org>
- 656 West African Monetary Zone (WAMZ). (2022). *SME Sector Performance Review*.
657 <https://wamz.org>
- 658 Autio, E., et al. (2018). *Strategic Entrepreneurship Journal*, 12(1), 72–95. DOI:
659 [10.1002/sej.1266](https://doi.org/10.1002/sej.1266)
- 660 EFINA (2023). *Access to Financial Services in Nigeria Survey*. <https://efina.org.ng/2023-survey>
- 661 National Bureau of Statistics (NBS, 2022). *National MSME Survey Report*.
662 <https://nigerianstat.gov.ng/elibrary?filename=MSME%20Survey%20Report%202022.pdf>
- 663 OECD (2023). *SME and Entrepreneurship Outlook 2023*. [https://www.oecd.org/industry/sme-](https://www.oecd.org/industry/sme-outlook-2023.htm)
664 [outlook-2023.htm](https://www.oecd.org/industry/sme-outlook-2023.htm)
- 665 Stam, E., & van de Ven, A. (2021). *Small Business Economics*, 56, 809–832. DOI:
666 [10.1007/s11187-019-00234-8](https://doi.org/10.1007/s11187-019-00234-8)
- 667 World Bank (2022). *Enterprise Surveys: Nigeria Innovation Module*.
668 <https://www.enterprisesurveys.org/en/data/exploreeconomies/2022/nigeria>
- 669 Ogundana, O. M., et al. (2023). Entrepreneurial ecosystems and SME innovation in Nigeria: A
670 systematic review. *Journal of Innovation and Entrepreneurship*, 12(1), 1–22. DOI:
671 [10.1186/s13731-023-00265-8](https://doi.org/10.1186/s13731-023-00265-8)
- 672 Adeola, O., & Evans, O. (2022). Digitalisation, innovation and SME performance in Nigeria.
673 *Technology in Society*, 69, 101944. <https://doi.org/10.1016/j.techsoc.2022.101944>

- 674 Autio, E., Nambisan, S., Thomas, L. D. W., & Wright, M. (2018). Digital affordances, spatial
675 affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship*
676 *Journal*, 12(1), 72–95. <https://doi.org/10.1002/sej.1266>
- 677 Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2021). *Finance and innovation: Evidence*
678 *from SMEs in emerging markets*. World Bank Policy Research Working Paper No. 9672.
679 [https://documents.worldbank.org/en/publication/documents-](https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099125303072245901/finance-and-innovation-evidence-from-smes-in-emerging-markets)
680 [reports/documentdetail/099125303072245901/finance-and-innovation-evidence-from-](https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099125303072245901/finance-and-innovation-evidence-from-smes-in-emerging-markets)
681 [smes-in-emerging-markets](https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099125303072245901/finance-and-innovation-evidence-from-smes-in-emerging-markets)
- 682 Beck, T., Pamuk, H., Ramrattan, R., & Uras, B. R. (2022). SMEs and innovation: The role of
683 access to finance. *Journal of Financial Intermediation*, 51, 100947.
684 <https://doi.org/10.1016/j.jfi.2021.100947>
- 685 Damanpour, F., & Aravind, D. (2023). Innovation in SMEs: A review and research agenda.
686 *International Journal of Innovation Management*, 27(01), 2250056.
687 <https://doi.org/10.1142/S1363919622500562>
- 688 Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2021). Effects of innovation types on firm
689 performance. *International Journal of Production Economics*, 231, 107836.
690 <https://doi.org/10.1016/j.ijpe.2020.107836>
- 691 Isenberg, D. (2011). The entrepreneurship ecosystem strategy as a new paradigm for economic
692 policy: Principles for cultivating entrepreneurship. *Babson Entrepreneurship Ecosystem*
693 *Project*. [https://www.babson.edu/wp-content/uploads/2021/03/Entrepreneurship-](https://www.babson.edu/wp-content/uploads/2021/03/Entrepreneurship-Ecosystem-Strategy-Dan-Isenberg.pdf)
694 [Ecosystem-Strategy-Dan-Isenberg.pdf](https://www.babson.edu/wp-content/uploads/2021/03/Entrepreneurship-Ecosystem-Strategy-Dan-Isenberg.pdf)
- 695 Motoch, R., & Mwangi, S. (2022). The role of innovation hubs in fostering entrepreneurship in
696 Africa. *Journal of Innovation and Entrepreneurship*, 11(1), 1–22.
697 <https://doi.org/10.1186/s13731-022-00202-9>
- 698 OECD & Eurostat. (2022). *Oslo Manual 2022: Guidelines for Collecting, Reporting and Using*
699 *Data on Innovation* (4th ed.). OECD Publishing.
700 <https://doi.org/10.1787/9789264318943-en>
- 701 Ogundana, O. M., Ukpere, W. I., & Joemat, C. C. (2023). Process innovation and performance of
702 manufacturing SMEs in Nigeria. *Journal of Innovation and Entrepreneurship*, 12(1), 1–
703 18. <https://doi.org/10.1186/s13731-023-00265-8>
- 704 OECD. (2023). *SME and Entrepreneurship Outlook 2023*. OECD Publishing.
705 <https://doi.org/10.1787/94314356-en>
- 706 Stam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business*
707 *Economics*, 56(3), 809–832. <https://doi.org/10.1007/s11187-019-00234-8>
- 708 World Bank. (2022). *Enterprise Surveys: Nigeria*.
709 <https://www.enterprisesurveys.org/en/data/exploreeconomies/2022/nigeria>
- 710 Agbaeze, E. K., Ofobruku, S. A., & Chukwu, B. I. (2020). Influence of entrepreneurial
711 innovation on sustainable solid waste recycling in Abuja, Nigeria. *Periodica Polytechnica*
712 *Social and Management Sciences*. <https://doi.org/10.3311/PPSO.12626>

- 713 Adegboye, A. C., &Iweriebor, S. (2018). Does access to finance enhance SME innovation and
714 productivity in Nigeria? Evidence from the World Bank Enterprise Survey. *African*
715 *Development Review*, 30(4), 418–428. <https://doi.org/10.1111/1467-8268.12351>
- 716 Aliyu, R. M., Ahmad, T. S. B. T., & Nordin, N. (2019). The mediating role of innovation on
717 access to finance and business performance of women entrepreneurs. *International*
718 *Journal of Academic Research in Business and Social Sciences*, 9(3), 204–222.
719 <https://doi.org/10.6007/IJARBSS/V9-I3/5644>
- 720 Abdullahi, N., Odeh, J. A., & Alaga, M. N. (2025). Business environment and the performance
721 of Small and Medium Enterprises (SMEs) in Abuja. *British Journal of Interdisciplinary*
722 *Research*, 2(6), 45–58. <https://doi.org/10.31039/BJIR.V2I6.42>
- 723 Dare, D. J., &Ezeamuzie, J. N. (2024). Effects of entrepreneurship education on small and
724 medium scale enterprises performance in Federal Capital Territory, Abuja, Nigeria.
725 *International Journal of Science and Management Studies*, 7(6), 89–98.
726 <https://doi.org/10.51386/25815946/IJSMS-V7I6P122>
- 727 Gumel, B. I., &Bardai, B. B. (2021). Barriers to accessing financial institutions funding for
728 Nigerian SMEs. *International Journal of Business and Economics Research*, 10(6), 155–
729 165. <https://doi.org/10.11648/J.IJBER.20211006.12>
- 730 Job Adah, D., Dare, D. J., &Ndaman, A. (2025). Impact of financial technology on small and
731 medium enterprises financial inclusion in Abuja, Nigeria. *Abuja Journal of Business and*
732 *Management*, 1(1), 96–108. <https://doi.org/10.70118/AJBAM-01-2025-96>
- 733
- 734