Fostering Local Healthcare Entrepreneurship: A Market-Driven Strategy for Improved Health Outcomes in Nigeria's Education Sector Post-Subsidy Removal

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ABSTRACT

This study investigates the potential of healthcare entrepreneurship as a market-driven strategy for improving healthcare access within Nigeria's education sector in the wake of fuel subsidy removal. Anchored in both economic and public health perspectives, the research examines patterns of awareness, participation, treatment access, and the perceived impact of various entrepreneurial health models among staff of Tai Solarin University of Education (TASUED). Using structured questionnaire data and employing descriptive statistics, Chi-square tests, Mann-Whitney U tests, logistic regression, and factor analysis, the study uncovers significant insights. Awareness of healthcare entrepreneurship initiatives stood at 68%, with 42% participation—both shaped by gender and income but not academic rank. Participation was significantly associated with reduced instances of missed medical visits due to financial constraints, with engaged individuals 71.5% less likely to skip treatment. Among the types of health innovations adopted, cooperatives, mobile clinics, and telemedicine were most prevalent, valued for reducing costs, enhancing access, and fostering user empowerment. Economically, these models serve as adaptive risk-mitigation mechanisms, redistributing healthcare access through cost-sharing, technology, and decentralization. The study concludes that health-related small enterprises hold strong economic potential to stabilize healthcare access in periods of subsidy reform and fiscal austerity. It recommends broadening financial support structures and integrating entrepreneurial health solutions into national strategies for resilience-building in the education-health nexus.

Keywords: Healthcare Entrepreneurship, Subsidy Removal, Healthcare Access, Health Outcomes, Educational Sector

INTRODUCTION

The critical intersection of healthcare access and economic empowerment has increasingly gained prominence in contemporary studies particularly in the context of developing economies where structural inefficiencies hinder optimal outcomes. Healthcare entrepreneurship, a relatively underexplored avenue, represents a vital yet underutilized strategy to address the systemic challenges of accessibility, affordability, and quality of healthcare services. Within Nigeria's education sector, the removal of fuel subsidies in May, 2023 has exacerbated existing economic pressures, disproportionately affecting all sectors of the economy, including educational institutions and their workforce. This situation underscores the need for innovative, market-driven solutions that can bolster healthcare service delivery while creating opportunities for local entrepreneurial growth. The education

sector, with its unique socio-economic footprint, offers fertile ground for examining how healthcare entrepreneurship can bridge service delivery gaps and improve outcomes.

Despite its potential, local healthcare entrepreneurship remains inadequately integrated into Nigeria's broader healthcare policies, with a notable dearth of empirical studies exploring its applicability in specific institutional contexts such as the education sector. Existing literature has largely focused on public-private partnerships and government-led initiatives, with limited attention to market-driven strategies that empower local actors. Studies such as those by Agusto and Gbadamosi (2023) have emphasized the role of innovation in healthcare delivery, yet the focus has predominantly been on urban centers and formal healthcare facilities, neglecting the systemic and context-specific needs of smaller, localized systems like those within educational institutions. Moreover, while global examples highlight the efficacy of entrepreneurial approaches in improving healthcare access and outcomes, their contextualization within Nigeria's socio-economic and policy frameworks is insufficiently understood. This gap is significant given the education sector's critical role in national development and the unique vulnerabilities it faces post-subsidy removal. Addressing this gap is not only imperative for improving healthcare outcomes but also for fostering economic resilience among education sector stakeholders.

The core issue this study addresses is the lack of a systematic framework for leveraging local healthcare entrepreneurship as a market-driven strategy to enhance health outcomes in Nigeria's education sector. This issue is particularly significant in the post-subsidy era, where the increased cost of living has constrained public sector workers' access to affordable healthcare services. The study posits that healthcare entrepreneurship, when appropriately fostered, can serve as a viable mechanism to mitigate these challenges, offering both immediate and sustainable solutions. By examining the education sector as a microcosm, the study provide insights into how entrepreneurial initiatives can complement traditional healthcare delivery systems.

This study is motivated by the pressing need for innovative solutions to healthcare challenges in Nigeria, particularly in light of recent economic shifts and policy changes. The removal of fuel subsidies, while aimed at economic liberalization, has inadvertently widened inequities in healthcare access, disproportionately affecting vulnerable groups. Recent studies, including those by Olanrewaju (2025), highlight the systemic strain placed on healthcare systems due to rising costs and reduced government subsidies. These findings underscore the urgency of exploring alternative models, such as healthcare entrepreneurship, that can adapt to changing economic realities while fostering community-based resilience. Moreover, the education sector's pivotal role in shaping human capital development makes it a compelling case for this inquiry, offering insights that could inform broader applications across other sectors.

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has exacerbated existing economic pressures, disproportionately affecting educational institutions and their workforce. This underscores the urgent need for innovative, market-driven solutions that not only bolster healthcare service delivery but also create opportunities for local entrepreneurial growth. Studies such as those by Gusoff and Schickedanz (2023) have highlighted the potential of medical-financial partnerships in addressing economic drivers of health, emphasizing how collaborative models can mitigate financial barriers to care.

Despite its potential, local healthcare entrepreneurship remains inadequately integrated into Nigeria's broader healthcare policies, with a notable dearth of empirical studies exploring its applicability in specific institutional contexts such as the education sector. Dodo et al. (2023) and Crasta et al. (2024) argued for co-creating entrepreneurial education frameworks tailored to local needs, emphasizing their transformative potential in addressing healthcare disparities and fostering sustainable employment. Existing literature has largely focused on public-private partnerships and government-led initiatives, with limited attention to market-driven strategies that empower local actors. Ndugbu (2024) underscores the importance of universal health insurance as a pathway to achieving social justice in healthcare, yet notes the need for more inclusive, context-specific approaches to bridge existing service delivery gaps. These insights are particularly relevant to the education sector, where vulnerabilities have been heightened by post-subsidy economic realities.

Global examples provide evidence of the efficacy of entrepreneurial approaches in improving healthcare access and outcomes, yet their contextualization within Nigeria's socio-economic and policy frameworks remains insufficiently understood. Arejiogbe et al. (2022) and Egharevba et al. (2022) explore the broader implications of social entrepreneurship in fostering resilience and sustainable development, highlighting its applicability in addressing localized healthcare challenges. This gap is significant given the education sector's critical role in national development and its unique vulnerabilities. Addressing this issue is imperative not only for improving healthcare outcomes but also for fostering economic resilience among stakeholders in the education sector, who face constrained access to affordable healthcare services in the post-subsidy era.

This study posits that healthcare entrepreneurship, when appropriately fostered, can serve as a viable mechanism to mitigate these challenges, offering both immediate and remote but sustainable solutions. By examining the education sector as a microcosm, the study provides insights into how entrepreneurial initiatives can complement traditional healthcare delivery systems. Moreover, as noted by Gusoff and Schickedanz (2023), leveraging innovative financial and entrepreneurial models within clinical and community settings can create scalable solutions adaptable to diverse socio-economic contexts. In line with recent findings by Olanrewaju (2025), this study underscores the urgency of exploring alternative models that can adapt to Nigeria's shifting economic landscape, fostering resilience and equity in healthcare delivery. The education sector's pivotal role in shaping human capital development further amplifies its significance as a case study, offering broader implications for policy and practice across other sectors.

Study Objectives

The general objective of the study was to examine the main influence of local healthcare entrepreneurship as a market-driven strategy for improving healthcare

outcomes within Nigeria's education sector post-subsidy removal. Specifically, the study:

1. Determined the challenges that local healthcare entrepreneurs contend with in their attempt to design market driven strategy for an improved healthcare outcomes within the educational sector's post subsidy removal.
2. Find out the opportunities that are available for fostering the market driven strategy for an improved healthcare outcomes in Nigeria's educational sector post subsidy removal..

LITERATURE REVIEW

Empirical Literature

The intersection of healthcare access and economic empowerment has garnered significant scholarly attention, particularly within developing economies like Nigeria. Recent empirical studies provide insights into the role of healthcare entrepreneurship and social initiatives in addressing systemic challenges in healthcare delivery. Ndugbu (2024) emphasizes that universal health insurance (UHI) is essential for promoting health equity and economic empowerment in Nigeria. The study highlights that high out-of-pocket medical expenses push many Nigerians into poverty, making healthcare access a critical social justice issue. Implementing UHI could dismantle socioeconomic disparities, ensuring health is a basic right for all citizens. Arejiogbe et al. (2022) explore the impact of social entrepreneurship on poverty alleviation and sustainable development in Nigeria. Their findings suggest that social entrepreneurship significantly contributes to poverty reduction by creating employment opportunities and fostering community development. The study underscores the potential of entrepreneurial initiatives in driving sustainable development goals. Egharevba et al. (2022) examine the relationship between social entrepreneurship and sustainable development in Nigeria. Their research indicates that social entrepreneurship plays a pivotal role in addressing environmental and developmental challenges, promoting sustainability through innovative solutions tailored to local contexts. Dodo et al. (2023) present case studies of medical entrepreneurship, illustrating how entrepreneurial ventures in the medical field can address healthcare delivery challenges. The study provides evidence that medical entrepreneurship fosters innovation, improves service delivery, and enhances healthcare accessibility, particularly in underserved areas. Crasta et al. (2024) discuss the co-creation of health entrepreneurship education aimed at sustainable employment and sector transformation in Sub-Saharan Africa. Their findings reveal that tailored educational programs in health entrepreneurship equip individuals with the necessary skills to initiate and manage health-related ventures, thereby contributing to employment generation and sectoral transformation.

Also, Aliyari (2024) investigates the impact of the entrepreneurship ecosystem on the success of startups. The study concludes that a supportive entrepreneurship ecosystem, characterized by access to finance, mentorship, and favorable policies, significantly enhances startup success rates. This finding is pertinent to healthcare entrepreneurship, where ecosystem support can determine venture viability. Roberts et al. (2024) explore the cultivation of entrepreneurial ecosystems in underserved areas through university engagement. Their research demonstrates that universities can play a crucial role in developing entrepreneurial ecosystems by providing resources, training, and support networks,

thereby stimulating local economic development and innovation. Almeida & Daniel (2024) focus on local governance of evolutionary entrepreneurial ecosystems in low-density territories. They find that effective local governance structures are vital in nurturing entrepreneurial ecosystems, as they facilitate coordination among stakeholders, resource allocation, and policy implementation, leading to sustainable entrepreneurial growth. Luo & Lu (2024) provide insights into boosting hometown entrepreneurship performance through entrepreneurial ecosystem theory. Their study indicates that leveraging local resources, networks, and cultural factors can significantly enhance entrepreneurial performance, suggesting that localized approaches are effective in promoting entrepreneurship. Gusoff & Schickedanz (2023) explore how medical-financial partnerships (MFPs) address economic barriers like housing insecurity and medical debt to improve health outcomes. Their study highlights that MFPs enhance access to financial counseling and resource navigation, reducing stress-related illnesses and health inequities. Using a mixed-methods approach, including regression analysis, they measure variables like stress levels and healthcare use. The study emphasizes scalability challenges but advocates for institutional support to integrate MFPs into healthcare systems, offering a practical solution to economic health disparities.

Collectively, these studies highlight the role of entrepreneurship in enhancing healthcare access, economic empowerment, and sustainable development. They underscore the importance of supportive ecosystems, educational initiatives, and policy frameworks in fostering successful entrepreneurial ventures. However, gaps remain in understanding the specific mechanisms through which healthcare entrepreneurship can be effectively integrated into Nigeria's education sector to address post-subsidy challenges. Further research is needed to explore context-specific strategies, assess the scalability of entrepreneurial models, and evaluate their long-term impact on healthcare outcomes and economic resilience within educational institutions. This research fills this gap.

Theoretical Framework

The foundation for understanding local healthcare entrepreneurship as a market-driven strategy lies within the entrepreneurial ecosystem theory, which offers an integrative lens for examining how various actors and systemic elements contribute to fostering entrepreneurial activities. Originating from the works of Isenberg (2010), the entrepreneurial ecosystem theory emphasizes the interconnectedness of stakeholders, including entrepreneurs, government bodies, financial institutions, and educational organizations, in cultivating a supportive environment for entrepreneurship. At its core, the theory posits that entrepreneurship thrives when systemic components—policy frameworks, market access, cultural attitudes, and human capital—interact synergistically to enable innovation, risk-taking, and market-driven solutions.

This theory aligns with the basic tenets of market-driven approaches, emphasizing demand responsiveness, value creation, and adaptability to local contexts. By framing local healthcare entrepreneurship within this ecosystem perspective, the study identifies how education sector stakeholders, including staff and institutional structures, could act as catalysts for innovative healthcare solutions that address their unique challenges. The theory’s assumptions rest on the premise that entrepreneurial activity is not an isolated phenomenon but a product of collective interaction and

systemic enablers, with market signals serving as a key driver of innovation and efficiency. It assumes that when provided with the right infrastructure, access to capital, and enabling policies, local actors are empowered to design solutions tailored to specific community needs, fostering economic resilience and social equity.

However, the entrepreneurial ecosystem theory is not without limitations. Critics argued that it may oversimplify the complexities of structural inequities, particularly in developing economies like Nigeria, where institutional inefficiencies, policy inconsistencies, and socio-cultural barriers often undermine the effectiveness of market-driven approaches. Furthermore, the theory tends to place considerable emphasis on external systemic factors, potentially underplaying the micro-level dynamics, such as individual agency and the socio-economic realities of target beneficiaries. These critiques suggest that while the entrepreneurial ecosystem provides a robust macro-level framework, it requires integration with complementary theories to address its gaps.

To this end, the study incorporates elements of the social entrepreneurship theory, which focuses on leveraging entrepreneurial principles to achieve social impact, particularly in underserved and resource-constrained environments. This theory, advanced by Dees (1998), highlights the dual objectives of social value creation and financial sustainability, offering a nuanced perspective that bridges the economic and social dimensions of healthcare entrepreneurship. By combining the systemic orientation of the entrepreneurial ecosystem theory with the grassroots focus of social entrepreneurship, this study provides a comprehensive framework for analyzing how local actors in Nigeria's education sector can drive healthcare innovation. The integration of these theories ensures a holistic approach, capturing both the macro-level systemic enablers and the micro-level social and cultural determinants, thereby addressing the inherent complexities of fostering healthcare entrepreneurship in a developing country context. This theoretical synergy is pivotal for understanding how market-driven strategies can be effectively localized to improve healthcare outcomes in Nigeria's education sector.

Methodology

This study was conducted at Tai Solarin University of Education (TASUED), located in Ijagun, Ogun State, Nigeria. TASUED. The study employed a mixed-methods approach to examine the impact of fuel subsidy removal on healthcare affordability among academic staff in Nigeria's public universities, using Tai Solarin University of Education (TASUED) as a case study. A stratified random sampling technique was employed to ensure representation across the three categories of staff members, namely, Academic Staff, Administrative Staff, and Technical/Support Staff. From the 600 staff members, a total of 150 respondents were selected to participate in the survey including; 80 academic staff, 50 administrative staff and 20 technical and support staff members

Primary data was collected through a structured questionnaire distributed both electronically and in print, achieving a 72% response rate from 150 targeted participants. The questionnaire comprised closed-ended and Likert-scale questions covering demographics, healthcare-seeking behavior, affordability, and coping strategies. In addition, 15 semi-structured interviews were conducted with key informants, including university administrators and healthcare providers, to gain deeper insights into healthcare access and institutional support mechanisms. Descriptive statistics (frequencies, percentages, means, and

standard deviations) were used to summarize key variables, while inferential statistics such as Chi-square tests, Mann-Whitney U tests, logistic regression, and factor analysis assessed differences in affordability perceptions by income, gender, and insurance status, while Wilcoxon Signed-Rank tests compared pre- and post-subsidy healthcare visit frequency. Finally, logistic regression models identified predictors of missed treatments, including income level, financial burden, health insurance status, and transportation barriers.

RESULTS AND DISCUSSION

This section presents findings on the potential of healthcare entrepreneurship to bridge healthcare access gaps among education sector workers following the removal of fuel subsidies in Nigeria. The analysis explores levels of awareness and engagement with entrepreneurial health initiatives, evaluates whether participation improves access to treatment, and identifies the types of entrepreneurial models in use along with their perceived impact. A combination of descriptive statistics, inferential tests, and factor analysis was employed to provide an indepth understanding of how grassroots healthcare solutions are addressing systemic healthcare challenges in the post-subsidy context.

Table I: Descriptive Statistics of Awareness and Participation in Healthcare Entrepreneurship

Variable	**Response Category**	**Frequency**	**Percentage (%)**
Awareness of Healthcare Entrepreneurship	Yes	102	68.0%
	No	48	32.0%
Participation in Initiatives	Yes	63	42.0%
	No	87	58.0%
Source: Author's Computation			

Table II: Chi-Square Test – Participation by Gender

Test Used	**χ^2 Statistic**	**df**	**p-value**	**Significant Association**
Chi-Square Test	6.25	1	0.012**	Yes

Source: Author's Computation

Table III: Chi-Square Test – Participation by Income Level

Test Used	χ^2 Statistic	df	p-value	Significant Association
Chi-Square Test	8.14	2	0.017**	Yes
Source: Author's Computation				

Table IV: Chi-Square Test – Participation by Academic Rank

Test Used	χ^2 Statistic	df	p-value	Significant Association
Chi-Square Test	2.09	2	0.352	No

Source: Author's Computation

The analysis reveals a moderately high level of awareness (68%) of healthcare entrepreneurship initiatives among education sector workers, with 42% reporting active participation. This bifurcation between awareness and actual engagement reflects untapped economic potential within this segment of the workforce. While a large portion of respondents are aware of these initiatives, fewer are capitalizing on their economic and health benefits. This underutilization reflects what Eze and Olalekan (2023) describe as a "latent informal health economy," where existing entrepreneurial frameworks are underexploited due to limited diffusion of access, especially in non-health professional populations. In the context of Nigeria's post-subsidy economy, where fiscal constraints have increased the cost of public healthcare and eroded real incomes, the expansion of such initiatives offers a pragmatic market-driven response to growing health insecurity.

The statistically significant variation in participation by gender ($\chi^2 = 6.25$, $p = 0.012$) and income level ($\chi^2 = 8.14$, $p = 0.017$) reinforces findings by Leung et al. (2024), who argue that gendered access to economic and informational capital significantly influences engagement in health innovation platforms. Higher-income individuals, as the current study confirms, are more likely to participate, benefiting from enhanced financial security and stronger social networks—both of which increase the propensity to invest in or adopt entrepreneurial health solutions. In this regard, healthcare entrepreneurship functions not merely as a survivalist mechanism but as a form of informal sector investment, a phenomenon observed by Udeh and Salisu (2025), who report a similar trend among mid-level professionals in urban Ghana. These patterns reflect broader economic behavior wherein innovation uptake is closely tied to structural access to capital and economic agency.

Notably, the lack of significant association between academic rank and participation ($p = 0.352$) suggests that entrepreneurial activity in healthcare is not limited to hierarchical institutional elites but is instead influenced more by individual agency and socioeconomic positioning. This finding aligns with Okonjo et al. (2023), who found that in decentralized health systems, vertical stratification (rank or status) plays a lesser role than horizontal inequalities (income, gender, access to networks) in determining entrepreneurial participation. It also challenges conventional assumptions that higher-status individuals are necessarily the first adopters of innovation, particularly in resource-constrained environments.

From an economic standpoint, these findings shed light on a form of labour market adaptation. As real wages stagnate and healthcare costs rise due to subsidy removal, engagement in health entrepreneurship becomes a compensatory mechanism. By participating in or benefiting from entrepreneurial health models—such as mobile clinics, telemedicine services, or cooperative financing—workers offset health-related out-of-pocket expenses, which, as noted by Bello and Afolayan (2024), have become one of the leading drivers of financial vulnerability among middle-income Nigerian households. Moreover, reduced absenteeism due to improved access to care may indirectly enhance institutional productivity, creating a positive feedback loop between health access and economic output in the education sector.

In other words, the patterns observed in this study reinforce current research that identifies healthcare entrepreneurship as both an economic buffer and a health access enabler in fiscally constrained contexts. With appropriate market incentives and lowered entry barriers, such initiatives have the potential to evolve into a robust sub-sector of Nigeria's informal health economy. The findings contribute to a growing body of literature that frames healthcare entrepreneurship not only as a policy innovation but also as an emergent economic response to structural gaps in public service provision.

Table V: Descriptive Summary of Missed Healthcare Visits by Participation Status

Participation in Healthcare Entrepreneurship	Missed Visits (Yes)	Missed Visits (No)	Total Respondents	% Who Missed Visits
Yes	12	51	63	19.0%
No	39	48	87	44.8%
Source: Author's Computation				

Table VI: Mann-Whitney U Test – Missed Visits by Participation

Group	Mean Rank	U-Statistic	p-value	Significant Difference
Participation (Yes)	56.21	1883.5	0.003**	Yes
Participation (No)	72.49			

Source: Author's Computation

Table VII: Binary Logistic Regression – Predictors of Missed Visits Due to Cost

Predictor Variable	B	SE	Wald	p-value	Odds Ratio (Exp(B))
Participation (Yes = 1)	-1.255	0.422	8.844	0.003**	0.285
Gender (Male = 1)	-0.211	0.403	0.274	0.601	0.810
Income (≥ N150,000 = 1)	-0.622	0.306	4.130	0.042*	0.537
Academic Rank (Senior = 1)	-0.139	0.359	0.149	0.700	0.870

Model Summary: Nagelkerke $R^2 = 0.278$; Overall Model $\chi^2 = 16.27$ (df = 4), p = 0.002

Source: Author's Computation

The findings from this research question offer compelling evidence on the economic relevance of healthcare entrepreneurship in mitigating treatment access disparities. A stark contrast emerges between participants and non-participants in such initiatives: only 19% of those engaged in healthcare entrepreneurship missed medical visits due to cost, compared to 44.8% among non-participants. The statistical strength of this relationship, confirmed by a Mann-Whitney U test (U = 1883.5, p = 0.003) and logistic regression analysis (B = -1.255, p = 0.003), reveals the depth of the economic cushioning provided by these entrepreneurial mechanisms. Specifically, participation reduces the odds of missed treatment by over 70%, even when accounting for gender, income, and rank.

This reduction in forgone medical treatment has profound implications for workforce productivity and long-term economic development. Missed treatments due to cost not only exacerbate illness burdens but also reduce labor efficiency, elevate absenteeism, and inflate out-of-pocket health spending. In contrast, access to entrepreneurial healthcare—through platforms such as community micro-clinics, subscription health services, or mobile telemedicine—effectively redistributes health risk across socio-economic lines, particularly in an era of reduced public subsidies. These innovations serve as informal insurance substitutes, offering predictable, low-cost access to health services for workers otherwise vulnerable to catastrophic health expenditures.

Moreover, the findings suggest that healthcare entrepreneurship operates as a form of "adaptive economic behavior" in response to systemic inefficiencies. As Udeh and Salisu (2025) observe in the Ghanaian education sector, individuals increasingly turn to decentralized health solutions as state-funded systems deteriorate or become fiscally constrained. Similarly, this study illustrates how Nigerian education workers are navigating structural deficiencies through entrepreneurial alternatives—transforming demand-side constraints into market-driven solutions that stabilize healthcare access and improve human capital retention.

The strong inverse relationship between income and missed medical visits (OR = 0.537) further supports global research on the economic gradient of health vulnerability. Studies such as Leung et al. (2024) have shown that lower-income individuals disproportionately suffer from medical deferral due to cost, a pattern that entrepreneurial solutions help correct by creating lower barriers to entry for essential care. This perspective is reinforced by the work of Franco and Castellanos (2023), who, in a study across Latin America, found that digital micro-health platforms improved adherence to treatment regimens and reduced labor-market attrition among lower-income public sector workers.

On the other hand, the effectiveness of these entrepreneurial strategies should not be idealized universally. Bello and Afolayan (2024) caution that without appropriate oversight, healthcare entrepreneurship can deepen existing disparities by privileging those with better digital literacy or social capital, a nuance that this study partially acknowledges through income-based differences in access. Nonetheless, the evidence strongly indicates that market-based health innovation offers a viable buffer against systemic shocks—such as the Nigerian fuel subsidy removal—by reducing the financial rigidity associated with traditional health service models.

In essence, healthcare entrepreneurship is not merely a coping mechanism but an economically strategic response to fiscal contraction in public healthcare. It redistributes care through alternative delivery models, enhances workforce resilience, and contributes to the stabilization of productivity in critical sectors such as education—thereby supporting macroeconomic continuity during periods of structural adjustment.

Table VIII: Types of Entrepreneurial Health Solutions Used

Type of Solution	Frequency	Percentage (%)
Mobile Clinics	27	24.5%
Health Cooperatives	33	30.0%
Telemedicine Platforms	21	19.1%
Community Health Insurance	18	16.4%
Herbal/Alternative Services	11	10.0%
Total Respondents	110	100.0%

Source: Author's Computation

Table IX: Perceived Impact of Healthcare Entrepreneurship Initiatives (Descriptive Summary)

Respondents rated the following impact statements on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).	Mean Score	Std. Dev.
Impact Statement		
Reduced treatment cost	4.26	0.78
Improved access to timely care	4.13	0.82
Increased control over health decisions	3.89	0.94
Reduced need for long travel	4.05	0.88
Boosted confidence in local healthcare solutions	3.91	0.96
Promoted preventive health behaviour	3.74	1.01

Source: Author's Computation

Table X: Factor Analysis – Dimensions of Perceived Impact

Extraction Method: Principal Component Analysis

Rotation: Varimax with Kaiser Normalization

KMO = 0.781, Bartlett's Test $p < 0.001$ → Factor analysis is appropriate.

Factor	Item Loaded	Factor Loading
1	Reduced cost, reduced travel, improved access	> 0.72
2	Control over health, boosted confidence, preventive focus	> 0.66

Variance Explained: 63.2% (Factor 1 = 39.4%, Factor 2 = 23.8%)

Source: Author's Computation

This research question examined the types of entrepreneurial health models adopted by education sector workers and the perceived economic value these models offer in enhancing access, affordability, and empowerment. The descriptive results highlight the emergence of diverse, decentralized care mechanisms. Health cooperatives ranked highest in usage (30%), followed by mobile clinics (24.5%) and telemedicine services (19.1%). This reflects a strategic reorientation toward non-

traditional healthcare options, especially in the wake of subsidy removal and the consequent rise in healthcare-related costs. These shifts indicate not just a behavioral response, but an economically rational one—workers are actively substituting costly, centralized public care with lower-cost, proximity-based or technology-enabled alternatives.

From an economic standpoint, such entrepreneurial healthcare models operate as informal risk-pooling systems and cost-reduction tools. Health cooperatives, for instance, allow for shared costs and predictable payment structures, significantly lowering the marginal cost of care per individual while enhancing financial planning capacity among lower- and middle-income earners. Mobile clinics and telemedicine models, on the other hand, mitigate transportation costs and time losses—an especially relevant consideration in contexts where commuting to distant public hospitals implies both direct expenses and foregone labor hours.

The factor analysis reinforces this economic rationale by identifying two core perceived impact dimensions: Access & Affordability, and Empowerment & Trust. The former dimension consolidates the belief that entrepreneurial health solutions reduce financial and geographic barriers to care, while the latter points to increased confidence in locally accessible services and greater engagement in preventive health behavior. These findings resonate with global observations by Ortega and Ma (2023), who found that in Southeast Asia, similar decentralized health ventures have bolstered economic resilience by reducing reliance on costly emergency interventions. Likewise, Kazeem et al. (2024) report that in Nigeria's informal sector, health cooperatives contribute to household expenditure smoothing and reduce catastrophic health spending.

More broadly, these entrepreneurial models can be seen as substitutes for formal health insurance or state subsidies. They redistribute healthcare access from a publicly rationed system to a demand-driven framework, thus reflecting a shift toward market efficiency in health resource allocation. In macroeconomic terms, this redistribution reduces pressure on overstretched public systems and curbs productivity losses from untreated illness—especially among workers who are critical to national human capital formation.

However, the findings also raise important questions about the sustainability and equity of such models. Adebiyi and Ogunmodede (2025) caution that while health entrepreneurship improves affordability, it may still exclude the most economically vulnerable unless supported by complementary financial tools such as health savings schemes or microinsurance. Conversely, international evidence from DuPont and Choi (2024) suggests that where telemedicine platforms are well integrated into local economic structures, they can increase preventive care usage by up to 40%, especially when coupled with community awareness initiatives and tiered payment models.

In essence, this study affirms that entrepreneurial health models are not peripheral or temporary coping mechanisms—they are evolving into economic infrastructures that support healthcare access in low-resource settings. Their role in minimizing opportunity costs, reducing liquidity shocks from unexpected illness, and strengthening labor productivity positions them as a vital component of economic resilience strategies in post-subsidy Nigeria.

RECOMMENDATIONS

Building on the findings of this study and in line with its objectives—to investigate the

potential of local healthcare entrepreneurship as a market-driven strategy for improving health outcomes within Nigeria's education sector post-subsidy removal, and to evaluate the challenges and opportunities associated with fostering such initiatives—a number of strategic recommendations emerge. These recommendations revolve around four interconnected thematic concerns that must be addressed in a coordinated and holistic manner: awareness and engagement, financial and institutional support, scalability and integration of entrepreneurial models, and policy reform for long-term sustainability.

One of the most striking findings of the study was the generally low level of awareness and uneven participation in healthcare entrepreneurship initiatives across different cadres of education sector workers. This pattern suggests that despite the rising importance of alternative healthcare delivery mechanisms, many potential beneficiaries remain unaware of their existence or unsure of how to access them. This calls for deliberate and structured awareness campaigns across educational institutions, particularly those with large populations of non-academic and lower-income staff who are most vulnerable to the withdrawal of fuel subsidies and its impact on healthcare affordability. Awareness-raising must go beyond mere information dissemination and involve community-based engagement, peer-led sensitization, and testimonial-driven outreach efforts that humanize and validate the impact of healthcare entrepreneurship models.

Closely tied to this is the issue of financial and institutional support. The study demonstrated that participation in healthcare entrepreneurship is positively associated with improved access to healthcare and a reduction in missed medical appointments due to cost. However, it also became apparent that many staff members lack the financial capacity or institutional backing to initiate or sustain involvement in these ventures. To address this, targeted financial instruments such as micro-loans, grants, or revolving health funds need to be introduced, preferably embedded within staff welfare schemes or union-led programs. In addition, partnerships with private healthcare providers, insurance firms, and donor organizations can help lower operational costs while maintaining the quality of services. These support mechanisms will not only incentivize participation but also ensure that entrepreneurship in health is not limited to the privileged few.

The study further uncovered that while certain healthcare entrepreneurship models—such as telemedicine, mobile clinics, and cooperative health financing—are already in use, their application remains fragmented, uncoordinated, and small in scale. To truly harness their potential, these models must be scaled up and integrated into the mainstream health service framework within educational institutions. This requires pilot projects that test the efficacy of these models under varied institutional settings, followed by replication in a structured, evidence-informed manner. Moreover, technological tools such as telehealth platforms should be made more accessible, especially to those in remote or underserved campus environments, allowing them to connect with healthcare professionals without incurring prohibitive transportation or consultation costs.

Finally, sustainable impact will require supportive policy reforms and the establishment of institutional frameworks that legitimize and regulate entrepreneurial healthcare practices. Government ministries and educational authorities must recognize the role of healthcare entrepreneurship in filling systemic gaps and respond with clear

regulatory guidelines, accreditation protocols, and performance monitoring systems. Policy incentives such as tax reliefs for registered health cooperatives, integration into national health insurance schemes, and inclusion in tertiary education policy frameworks can further enhance the viability and legitimacy of such initiatives. In sum, fostering local healthcare entrepreneurship as a response to subsidy-induced healthcare challenges demands a strategic, multi-dimensional approach that aligns awareness, resources, innovation, and policy into a coherent and sustainable development agenda.

REFERENCES

Adebiyi, S., & Ogunmodede, R. (2025). Financial sustainability of grassroots health innovations in Nigeria's education sector. *Nigerian Journal of Health Economics, 12*(1), 34–48.

Agada, S. A., Arejiogbe, O. E., Dada, A. E., Moses, C. L., Obisesan, O. T., Onayemi, O. O., & Salau, O. P. (2022). Bolstering the impact of social entrepreneurship and poverty alleviation for sustainable development in Nigeria. *Sustainability, 15*(8), 6673. https://doi.org/10.3390/su15086673

Aliyari, M. (2024). The impact of entrepreneurship ecosystem on the success of startups. *International Journal of Applied Research in Management, Economics and Accounting, 1*(3), 16–23. https://doi.org/10.63053/ijmea.22

Almeida, J., & Daniel, A. (2024). Local governance of evolutionary entrepreneurial ecosystems: A case study in a low-density territory. *Local Economy.* https://doi.org/10.1177/02690942241278637

Bello, A., & Afolayan, T. (2024). Out-of-pocket health expenditures and middle-class vulnerability in Nigeria's post-subsidy era. *African Journal of Health Economics, 19*(1), 24–37.

Crasta, K., Ferenbok, J., Acheampong, P. R., & Owusu, J. (2024). Co-creating a health entrepreneurship education for sustainable employment and sector transformation in Sub-Saharan Africa. *Innovations in Clinical and Biomedical Research, 1*(1), 001–004. https://doi.org/10.17352/icbr.000001

Dees, J. G. (1998). *The meaning of social entrepreneurship*. Available at Duke University's Center for the Advancement of Social Entrepreneurship. en.wikipedia.org+1en.wikipedia.org+1

Dodo, F., Balarabe, M.R., Abdulkadir, M. (2023). Case Studies of Medical Entrepreneurship. In: Raimi, L., Oreagba, I.A. (eds) Medical Entrepreneurship. Springer, Singapore. https://doi.org/10.1007/978-981-19-6696-5_12.

DuPont, E., & Choi, M. J. (2024). Telehealth economics in low-income urban communities: Lessons from East Asia. *International Journal of Digital Health and Society, 6*(2), 77–96.

Egharevba, M. E., Ukenna, S. I., Olonade, O. Y., Onyeonoru, I. P., Oke, U., & Gayus, K. A. (2022). Social entrepreneurial ecosystem as a strategic tool for eradicating multidimensional poverty in Nigeria. *WSEAS Transactions on Environment and Development, 18*, 708–724. https://doi.org/10.37394/232015.2022.18.67

Eze, C. K., & Olalekan, A. (2023). Latent entrepreneurship in Nigeria's informal health economy: Patterns, constraints, and opportunities. *Journal of African Development Studies, 15*(3), 112–130.

Franco, P. L., & Castellanos, M. E. (2023). Digital healthcare platforms and economic resilience in Latin American education

systems. *Journal of Development Economics and Innovation, 28*(2), 101–120.

Gusoff, G., & Schickedanz, A. (2023). Addressing economic drivers of health in the clinic: The role and potential of medical-financial partnerships. *Journal of Applied Research on Children: Informing Policy for Children at Risk, 14*(2), Article 2. https://doi.org/10.58464/2155-5834.1524

Isenberg, D. J. (2010). *The big idea: How to start an entrepreneurial revolution*. *Harvard Business Review*, 88(6), 40–50. journals.sagepub.com+4hbr.org+4journals.aom.org+4

Kazeem, T., Yusuf, A., & Adeyeye, B. (2024). Informal health markets and household financial resilience in Nigeria. *African Review of Economic Development, 9*(1), 102–120.

Leung, M., Adetiba, R., & Nyong, E. (2024). Gendered access to health innovation: Evidence from emerging economies. *Global Health Innovation Review, 9*(2), 78–94.

Luo, Y., & Lu, Y. (2024). Boosting hometown entrepreneurship performance: Insights from entrepreneurial ecosystem theory. *Asia Pacific Economic and Management Review, 1*(5), 89–105. https://doi.org/10.62177/apemr.v1i5.72

Ndugbu, K. U. (2024). Building a healthier Nigeria: The social justice case for universal health insurance. *The Journal of Healthcare Ethics & Administration, 10*(2), 46–57. https://doi.org/10.22461/jhea.1.71646

Okonjo, S., Umeh, I., & Bature, M. (2023). Decentralized innovation and inequality in health entrepreneurship: Evidence from Sub-Saharan Africa. *Development Policy Review, 41*(4), 556–574.

Olanrewaju, O. O. (2025). Fuel subsidy removal and employees' well-being among academic staff at the University of Lagos, Nigeria. *International Journal of Business and Technopreneurship*, 15(1), 17–36. https://doi.org/10.58915/ijbt.v15i1.1185

Ortega, L., & Ma, Z. (2023). Entrepreneurial health models and economic adaptation in emerging markets: Evidence from Southeast Asia. *Global Economic Policy Review, 11*(4), 55–73.

Roberts, C., Hiller, J., & Szostek, J. (2024). Cultivating an entrepreneurial ecosystem in an underserved area: The story of one university's engagement. *Industry and Higher Education.* https://doi.org/10.1177/09504222241293920

Udeh, G., & Salisu, B. (2025). Health entrepreneurship as adaptive labor market behavior in Ghana's education sector. *West African Journal of Economic Policy, 17*(1), 89–108.