

## Wealth Creation and Entrepreneurial Performance of Pig Farmers in South-South, Nigeria

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### **Abstract.**

*This study examined the influence of respective factors of wealth creation on designated measures of entrepreneurial performance of pig farmers in South-South, Nigeria. Specifically, it established a nexus between financial capital and market share; human capital and turnover; social capital and customer satisfaction; and intellectual capital and customer loyalty; respectively. The study adopted a mixed-method approach of combining quantitative survey data and qualitative interviews. Using purposive and snowball sampling techniques, questionnaires validated by experts and pre-tested for reliability (with all constructs above the 0.7 Cronbach's alpha values threshold) were personally administered to about 21 pig farmers drawn from each of the 6 South-South states of Akwa-Ibom, Bayelsa, Cross-river, Delta, Edo and Rivers. Data analysis was carried out on a total population of 123 using descriptive statistics, correlation analysis, and Ordinary Least Squares (OLS) regression models. The information collected via structured interview was analyzed using thematic content analysis. It was found that despite the wealth creation opportunities of pig farming, particularly in terms of: job creation, income generation, rural development, food security, and lately, xenotransplantation; entrepreneurial performance of pig farmers in South-South, Nigeria are still sub-optimal because of certain impairments in the identified wealth creating factors of financial capital, human capital, social capital and intellectual capital. Specifically, the study found that: financial capital has a positive and significant influence on market share ( $\beta = 0.783$ ,  $p = 0.000$ ); human capital has a positive and significant influence on customer satisfaction ( $\beta = 0.884$ ,  $p = 0.000$ ); social capital has a positive and significant influence on turnover ( $\beta = 0.730$ ,  $p = 0.000$ ); intellectual capital has a positive and significant influence on customer loyalty ( $\beta = 0.788$ ,  $p = 0.000$ ) The study concluded that pig farmers in South-South, Nigeria leveraging on financial strength, skilled human inputs, social networks, and knowledge-based innovations are better positioned for greater exploits in designated entrepreneurial performance indices like market share, turnover, customer satisfaction and customer loyalty and recommended increased financial and training exposures through private-public partnership, customized to suit the peculiarities of small holdings that dominated pig farming in South-South, Nigeria.*

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**Keywords:** *Factors of Wealth Creation; Designated Entrepreneurial Performance Indices.*

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## 1.0 Introduction

### 1.1 Background of Study

Wealth creation, is a process of generating value through effective use of resources, leading to increased assets, income, and economic growth. As in factors of production, these resources may be called factors of wealth creation and were identified in this study as financial capital, human capital, social capital and intellectual capital. The effective and efficient mobilisation and utilisation of these factors determines entrepreneurial performance, which is a measure of success achieved by entrepreneurs using established parameters like market share, turnover, customer satisfaction, customer loyalty, business growth, profitability, and overall effectiveness in managing their venture. As one of the fastest-growing agricultural subsector, pig farming has become a major entrepreneurial activity in Nigeria, particularly in South-South, Nigeria where it offers significant opportunities for wealth creation through job creation, income generation, rural development, food security, and lately, xenotransplantation. Nonetheless, entrepreneurial performance of pig farmers in South-South, Nigeria are still sub-optimal because of certain impairments in the aforesaid factors of wealth creation. Three phenomena goaded us into this study, namely: the mentorship of the richest man that had ever lived (Solomon); the wealth building advocacy of *The Richest Man in Babylon* (by George Samuel Clason) and our appreciation of piggery as a *relatively cheap and honest* way of overcoming poverty. Mindful that the first two is within literary domain, we consider it apposite to highlight them under literature review. According to a recent Oxfam International report, the eight richest people in the world own the same amount of wealth as the poorer half of humanity. Just eight individuals own the cumulative wealth of over four billion people! "*Our broken economies,*" cried Oxfam, "*are funneling wealth to a rich elite at the expense of the poorest in society . . .*"

While watching the CNN on Friday, 16<sup>th</sup> May, 2025, we were elated to see Tim Andrews beaming with smiles after a successful human kidney transplant done with the kidney of a pig. We remembered the Ike Ekweremadu organ harvesting saga and our entrepreneurial antenna beamed into activation by the realization that at least five percent of the over eight billion humans on earth may have cause to demand pig, not for its pork meat but for its kidney and perhaps other life – saving organs in future. Recall that USA with about 250 million inhabitants have about 37 million (14.8%) kidney patients, (as per CNN Health).

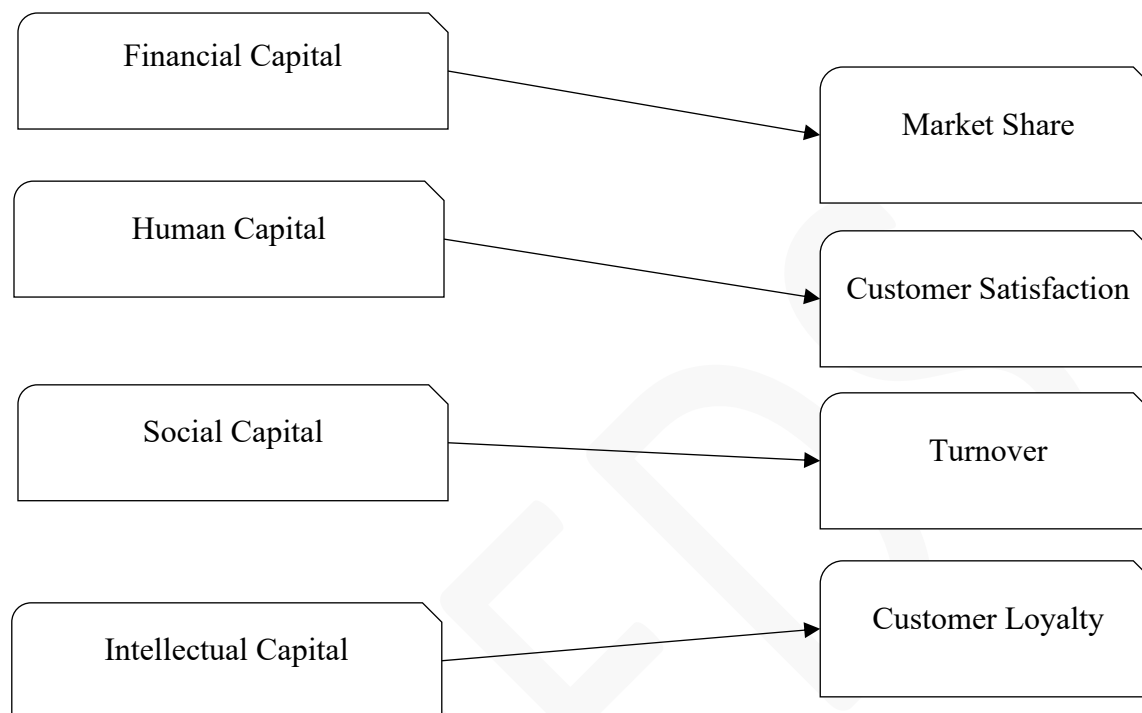
Of course, there have been ethical considerations surrounding xenotransplantation, such as animal welfare and concerns about human cells becoming involved in other pig tissues. But advancements in gene editing of pigs to reduce the risk of rejection and increase the compatibility of pig organs with humans and now, the Tim Andrews successful kidney transplants, suggest a promising future for pig organs as a source of life-saving transplant and ipso facto, wealth creation.

### 1.2 Objectives

The major objective of the study is to establish the nexus between respective factors of wealth creation (independent variables) and designated attributes of entrepreneurial performance of pig farmers in the region (dependent variables). Specifically, the study seeks to examine the influence of: financial capital on market share; human capital on turnover; social capital on customer satisfaction; and intellectual capital on customer loyalty; respectively.

## 2.0 Literature Review

### 2.1 Conceptual Framework Linking Respective Wealth Creating Factors with Designated Entrepreneurial Performance Indices.



Source: Author's Concept (2026)

The conceptual framework presented above highlights the specific objectives of the study by depicting the respective wealth creating factors influencing designated indices of entrepreneurial performance of pig farmers in South-South Nigeria.

### 2.2 Factors of Wealth Creation

Wealth creation is a multifaceted concept that includes the generation of financial capital, development of human capital, expansion of social capital, and fostering intellectual capital. One may not effectively discuss wealth creation without relishing the memory of the richest man that had ever lived (Solomon). Though God promised him wealth, Solomon knew that manna ended up with his fore-fathers in the wilderness and, like Peter the apostle, had to *toil all day* and night and had to *cast deep* before his triumphal entry to his Jerusalem of wealth. We read in 1Kings 9:26 – 28, that: “*King Solomon also built a fleet of ships at Ezion Geber . . . Then Hiram (King of Tyre) sent his servants with the fleet, seamen who knew the sea, to work with the servants of Solomon. And they went to Ophir, and acquired four hundred and twenty talents of gold from there . . .*”

The wealth creation factors inherent in this statement is still contemporaneously instructive. Recall its antiquity (hundreds of years before Christ) and note how the independent variables in this study played out in the statement:

- i. Financial capital – with which the fleet of ships and other resources were mobilised.
- ii. Human capital – *Hiram sent his servants to work with the servants of Solomon.*
- iii. Social capital – *Solomon's partnership with Hiram (King of Tyre).* Note that the social

networks of the personalities of both kings and their kingdoms are implicit here.

iv. Intellectual capital - *seamen who knew the sea*; those, innovative enough to cope with the physical and spiritual challenges of the deep blue sea.

All of these forms of capital are fundamental in determining how entrepreneurial ventures perform (Faster Capital, 2025), particularly in sectors that require significant investment, skills, and community engagement. One such sector is agriculture, with pig farming being a notable example in South-South Nigeria. In recent years, the role of wealth creation in driving the success of entrepreneurs has gained substantial academic and practical attention (Rong, 2024; Joseph, Brownson & Akpan, 2024; Nyong, 2020; Konorti, 2010). In an ideal situation, entrepreneurs engaged in pig farming in South-South Nigeria, should be able to leverage these wealth creation factors to effectively grow their businesses, enhance performance, and contribute to the development of the local economy. However, inadequacy of financial capital hampers their resolves to acquire resources like land, livestock, and infrastructure, while insufficient human capital impairs their effort towards having the necessary skills and knowledge to manage the farm efficiently (Nsumba, 2019; Etuk & Akpan, 2023). There is also a dearth of social capital, through networks and relationships, which would have provided support and access to markets, suppliers, and industry information. Additionally, absence of intellectual capital makes it extremely difficult for the farmers to foster innovation and continuous improvement in farming techniques. The above scenario disrupts the equilibrium of optimality of entrepreneurial performance of pig farmers for job creation, income generation, rural development, food security, and lately, xenotransplantation.

### 2.3 Designated Entrepreneurial Performance Indices

Entrepreneurial performance calls to mind, effective and efficient grooming of business ventures (Paul & Amin, 2024). Its evaluation is predicated on ability to meet objectives, sustain business operations, and adapt to changes in the market environment (Elsafty, Abadir & Shaarawy, 2020). It also includes the entrepreneur's ability to lead the organization, manage risks, build a sustainable business model, and create value for stakeholders. It is influenced by several factors, comprising the entrepreneur's skills, knowledge, access to capital, and that innovative dynamism to navigate the intricate landmines orchestrated by complexities of an ever-changing business environment (Ognjanović & Slavković, 2022). It is not just a function of being "*best at their craft*".

In *The Richest Man in Babylon* (by George Samuel Clason): Bansir, a chariot builder; and Kobbi, a musician; became the *best at their craft* but yet poor. They went out to seek the advice of their childhood friend, Arkad, who in contrast has grown very rich. Among other things, Arkad told his friends:

*"Ahead of you stretches your future like a road leading into the distance. Along the road are ambitions you wish to accomplish . . . desires you wish to gratify. To bring your ambitions and desires to fulfillment, you must be successful with money. . . If you have not acquired more than a bare existence in the years since we were youths, it is because you either have failed to learn the laws that govern the building of wealth, or else you do not observe them . . . Let them guide you away from the stringencies of a lean purse to that fuller, happier life a full purse make a possible."*

The laws that Arkad advocated for his friends was the premise of the book. Its fascinating and motivational stories, holds the key to acquiring money, keeping money, and making money earn more money. That, to me, is entrepreneurship – innovating to create value that will command effective demand and ultimately "*. . . guide you away from the stringencies of a lean purse to that fuller, happier life a full purse make a possible.*"

Entrepreneurial performance is a multi-dimensional concept that encompasses assorted measures of success, including: market share, turnover, customer loyalty, customer satisfaction, financial profitability, business growth, and innovation. The afore-mentioned first four parameters were identified as entrepreneurial performance measures in this study.

Market share refers to the proportion of total sales in a particular industry that is earned by a specific company over a defined period (Small, 2021). Customer satisfaction is the degree to which a company's products or services meet or exceed the expectations of its customers (Olubiyi, 2022). Turnover refers to the total revenue generated by a company from its core operations within a time bracket (Park & Shaw, 2013). Customer loyalty refers to a customer's consistent preference and commitment to repurchase or continue using a particular company's products or services over time, despite the availability of alternatives or competitive offerings (Adeleke & Aminu, 2012).

## 2.5 Theoretical Framework

The Resource-Based View theory (RBV) is considered the most apposite framework to anchor this study. The RBV which originated from strategic management, was first proposed by Edith Penrose, though popularized by Jay Barney. It emphasizes the role of resources within a firm as a critical factor for gaining a competitive advantage. This theory departs from traditional approaches that focus on external market factors and instead highlights the importance of leveraging on a company's internal resources for sustained success (Miller, 2019). Barney's 1991 paper titled *"Firm Resources and Sustained Competitive Advantage"* was particularly instrumental in establishing RBV as a prominent framework in the study of organizational strategy. Since then, the theory has become widely recognized in both academic and practical fields for explaining how firms can create and sustain value through the effective utilization of their unique resources.

The RBV theory posits that the key to gaining a sustainable competitive advantage lies in the ownership and control of valuable, rare, inimitable, and non-substitutable resources (Miller, 2019). These resources can take various forms, including physical assets (e.g., equipment, land), human capital (skills, expertise), social capital (networks, relationships), and intellectual capital (knowledge, patents). The theory suggests that firms with such resources are better positioned to outperform competitors, as these resources enable them to exploit opportunities and navigate challenges that others may not be able to (Adnan, Abdulhamid & Sohail, 2018). According to the RBV, it is not merely the possession of resources that matters, but how these resources are managed and utilized effectively. Organizations must ensure that their resources are continuously updated and leveraged to maintain their competitive edge in a dynamic business environment.

The RBV theory is highly relevant to the study of wealth creation and entrepreneurial performance, particularly in the context of pig farming in South-South Nigeria. Entrepreneurs in this sector can significantly benefit from leveraging various resources—such as financial capital to invest in farm equipment, human capital to enhance performance through skilled labor, and social capital to gain access to markets, innovative and business opportunities. The theory suggests that entrepreneurs with access to rare and inimitable resources, like unique farming techniques or strong networks with suppliers and distributors, can outperform competitors and achieve higher levels of entrepreneurial performance. Additionally, the theory supports the notion that wealth creation in pig farming is not just about having resources but about strategically utilizing them to improve performance and create value. By aligning their internal resources with the demands of the market, pig farmers can enhance their competitiveness, increase profitability, and sustain long-term growth in a challenging business environment.

## 2.5 Summary of Empirical Review

**Table 2.1 Summary of Empirical Review**

| S/N | Author and Year                                          | Topic                                                    | Geographical Scope              | Method of Data Analysis                               | Findings                                                                                                              |
|-----|----------------------------------------------------------|----------------------------------------------------------|---------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 1   | Astous, Mikhed, Raina, and Scholnick (2025)              | Relationship between wealth and entrepreneurship         | Canada                          | Descriptive and regression analysis                   | Older lottery winners reduce business ownership; younger winners increase it. Wealth reduces wage labor supply.       |
| 2   | Afolabi, Jimoh, Majiyagbe, Akinola, and Aladesuyi (2025) | Entrepreneurial skills in poultry farming                | Kwara Central, Nigeria          | Descriptive survey design, Cronbach Alpha reliability | Youth farmers need 31 skills for sustainable poultry production. Government support and workshops recommended.        |
| 3   | Nwobia (2024)                                            | Effect of entrepreneurial skills on SME performance      | Enugu State, Nigeria            | Descriptive survey, mean scores, Z-test statistics    | Leadership and networking skills positively impact SME performance.                                                   |
| 4   | Eseyin (2024)                                            | Social capital's impact on micro and small businesses    | South-Western Nigeria           | Mixed-methods, descriptive and inferential statistics | Social capital positively influences financial health of student-operated businesses.                                 |
| 5   | Rong (2024)                                              | Economic impacts of wealth creation and externalities    | Global                          | Literature review                                     | Wealth creation drives economic growth but may cause environmental degradation, mitigated by social entrepreneurship. |
| 6   | Joseph, Brownson, and Akpan (2024)                       | Entrepreneurship development and wealth creation         | Ikot Ekpene, Akwa Ibom, Nigeria | Descriptive survey design, Pearson's correlation      | Entrepreneurship development is positively linked to wealth creation.                                                 |
| 7   | Etuk and Akpan (2023)                                    | Farm accounting practices and wealth creation in poultry | Akwa Ibom State, Nigeria        | OLS regression analysis                               | Bookkeeping and financial planning practices positively impact wealth creation.                                       |
| 8   | Betz and Kim (2023)                                      | Wealth creation and extraction in                        | Japan                           | System dynamics flow models                           | Capital flows in firms can either boost or decrease                                                                   |

|    |                                           |                                                                            |                                |                                                          |                                                                                                                                            |
|----|-------------------------------------------|----------------------------------------------------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                           | capital structures                                                         |                                |                                                          | productivity, depending on investment intentions.                                                                                          |
| 9  | Eboh (2023)                               | Youth employment and wealth creation through agricultural entrepreneurship | Delta State, Nigeria           | Case study, qualitative analysis                         | Agricultural entrepreneurship can help reduce youth unemployment and promote economic diversification.                                     |
| 10 | Joseph, Umogbai, Kwahar, and Adudu (2023) | Innovation and entrepreneurial success in SMEs                             | North-Central Nigeria          | Cross-sectional survey, regression analysis              | Innovation across various dimensions (product, process, management, marketing) significantly contributes to entrepreneurial success.       |
| 11 | Akinrinlola, Ogunniyi, and Oladele (2023) | Impact of technology on entrepreneurship and wealth creation               | Ekiti State, Nigeria           | Descriptive statistics, Friedman Chi-square, SPSS        | Information technology positively influences entrepreneurship creation, emphasizing the importance of educating entrepreneurs on its role. |
| 12 | Dodo and Sallau (2023)                    | Role of entrepreneurship in wealth creation in rural areas                 | Northern Taraba State, Nigeria | Descriptive statistics, Chi-square analysis              | A strong relationship between entrepreneurship and wealth creation; recommended government support for small businesses in rural areas.    |
| 13 | Idigo (2023)                              | Effect of intellectual capital on organizational productivity              | South-East Nigeria             | Multiple regression analysis                             | Human capital, structural capital, and customer capital positively influence productivity in manufacturing firms.                          |
| 14 | Nwuba and Okoli (2022)                    | Agripreneurship as a strategy for wealth creation                          | Nigeria                        | Qualitative research, Thematic analysis                  | Agripreneurship is key for economic transformation but is hindered by challenges in the agricultural sector.                               |
| 15 | Ognjanović and Slavković (2022)           | Intellectual capital's impact on hotel industry financial performance      | Hotel industry, global         | Descriptive statistics, Correlation, Regression analysis | Intellectual capital, particularly human capital, significantly boosts financial performance in the hotel industry.                        |

|    |                                           |                                                                                       |                                      |                                                                              |                                                                                                                                                                         |
|----|-------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 | Ali (2021)                                | Relationship between entrepreneurial practices and wealth creation                    | Nigeria                              | Thematic analysis (secondary data)                                           | Inadequate adoption of entrepreneurship practices contributes to poverty, unemployment, and social inequality in Nigeria.                                               |
| 17 | Muhammad, Kong, Saqib, and Beutell (2021) | Impact of women's entrepreneurial income on well-being                                | Mardan, Khyber Pakhtunkhwa, Pakistan | ANOVA, Multiple regression analysis                                          | Women's informal entrepreneurship significantly improves family and societal well-being; highlighted need for empowering women entrepreneurs to meet SDGs.              |
| 18 | Matos and Hall (2021)                     | Entrepreneurship in impoverished communities                                          | Global                               | Qualitative research, Thematic analysis                                      | Institutional and individual factors shape entrepreneurial behavior; non-productive entrepreneurship is common due to misperception of abilities and social networks.   |
| 19 | Nuwatuhaire and Ainomugisha (2020)        | Impact of investment strategies on wealth creation                                    | Uganda                               | Quantitative and qualitative methods, Correlational, Cross-sectional designs | Investment strategies, including real estate and business partnerships, positively affect wealth creation; recommends aligning strategies with wealth creation needs.   |
| 20 | Era (2020)                                | Impact of business capital, duration, and entrepreneurial attitudes on batik artisans | Danau Teluk Jambi, Indonesia         | Quantitative descriptive, Multiple regression, Path analysis                 | Business capital, duration, and entrepreneurial attitudes positively impact income; income does not significantly affect welfare, but combined effects are substantial. |
| 21 | Dove (2020)                               | Impact of economic development incentives on entrepreneurship                         | Global                               | Thematic analysis                                                            | Economic incentives reduce productive entrepreneurship and increase unproductive entrepreneurship, decreasing overall productivity.                                     |
| 22 | Nyong (2020)                              | Strategies for wealth creation and independent living for individuals                 | Uruan Local Government, Nigeria      | Descriptive statistics, Correlation analysis                                 | Entrepreneurship education and environment have a positive relationship with independent living; recommends supportive                                                  |

|    |                                             |                                                                                          |                                     |                                     |                                                                                                                                                                                                                                                                          |
|----|---------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                             | with intellectual disabilities                                                           |                                     |                                     | government and private sector efforts.                                                                                                                                                                                                                                   |
| 23 | Elsafy, Abadir, and Shaarawy (2020)         | Impact of financial, human, social, and psychological capital on entrepreneurial success | Cairo, Egypt                        | Simple linear regression            | Social and psychological capital strongly influence entrepreneurial success; financial and human capital have weaker impacts.                                                                                                                                            |
| 24 | Prasetyo and Kistanti (2020)                | Role of human capital, institutional economics, and entrepreneurship in economic growth  | Central Java, Yogyakarta, Indonesia | Recursive model path analysis       | Human capital and social capital play key roles in driving economic growth, fostering competitiveness and sustainable regional growth through SMEs. Policy implications emphasize a foundation of these pillars to address unemployment, poverty, and income inequality. |
| 25 | Ternenge, Uchejeso, and Philemon (2020)     | Entrepreneurship education and wealth creation in Nigeria                                | Nigeria                             | Thematic analysis of secondary data | Entrepreneurship education is crucial for wealth creation, reducing unemployment, and enhancing economic development by fostering small businesses among youth.                                                                                                          |
| 26 | Yani, Eliyana, Hamidah, and Buchdadi (2020) | Social capital and entrepreneurship competence in SMEs                                   | Bekasi City, West Java, Indonesia   | Structural Equation Modeling (SEM)  | Social capital positively influences business performance in SMEs, particularly street food stalls in Bekasi City, with a significant T-statistics value indicating the impact.                                                                                          |
| 27 | Olaoye (2019)                               | Impact of entrepreneurial financing on poultry farms                                     | Kwara State, Nigeria                | Linear regression analysis          | Bootstrapping, bank loans, government grants, and venture capital significantly impact productivity and profitability in poultry farming.                                                                                                                                |

|    |                                             |                                                                               |                                   |                                              |                                                                                                                                                                                        |
|----|---------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 | Nsumba (2019)                               | Operation Wealth Creation program and poverty reduction                       | Myanzi Subcounty, Mubende, Uganda | Mixed-methods (qualitative and quantitative) | Agricultural financing, particularly access to credit, plays a key role in improving productivity and reducing poverty for farmers.                                                    |
| 29 | Yadav, Venkata, and Pradhan (2018)          | Influence of financial, social, and human capital on entrepreneurship success | Nepal                             | Correlation and multiple regression analysis | Access to finance, network ties, trust, education, and experience are significant for entrepreneurial success, particularly in renewable energy enterprises.                           |
| 30 | Zainol and Al Mamun (2018)                  | Impact of entrepreneurial competencies on competitive advantage               | Kelantan, Malaysia                | Structural equation modeling (SEM)           | Entrepreneurial competencies like commitment, opportunity recognition, and organizational skills improve business performance and competitive advantage among women entrepreneurs.     |
| 31 | Zainol, Al Mamun, Ahmad, and Simpong (2018) | Human capital, entrepreneurial competencies, and business performance         | Kelantan, Malaysia                | Structural equation modeling (SEM)           | Human capital and entrepreneurial competencies significantly influence business performance among women entrepreneurs in Kelantan, Malaysia.                                           |
| 32 | Mthanti and Ojah (2018)                     | Human capital, institutions, and entrepreneurship                             | 93 countries (1980-2008)          | Generalized Method of Moments (GMM)          | Human capital consistently affects entrepreneurial orientation across economic development levels, while institutional quality's impact varies between high- and low-income countries. |

Source: Researcher's Compilation (2026)

### 3.0 Methodology

This study adopted a mixed-method approach of combining quantitative survey data and qualitative interviews. Using purposive and snowball sampling techniques, questionnaires validated by experts and pre-tested for reliability were personally administered to about 21 pig

farmers drawn from each of the 6 South-Southern states of Akwa-Ibom, Bayelsa, Cross-river, Delta, Edo and Rivers who converged in Benin-City for the annual delegate conference of Pig Farmers Association of Nigeria, South-South Chapter. Purposive sampling techniques was used for the relatively few registered and renowned pig farming enterprises and/or cooperative societies while snowball sampling techniques was used for the comparatively more in number but not registered pig farmers mushrooming under their umbrella for feeds and loan accessibility.

Primary data were collected directly from 123 pig farming entrepreneurs through structured questionnaire and interview. This is complimented by secondary Data in the form of academic journals and reports. The questionnaire consisted of two sections: Section A collected demographic information about the participants, such as age, gender, education, and experience in pig farming, while Section B assessed the influence of each type of capital on designated performance index. A 5-point Likert scale was used in Section B to measure the degree to which the respondents agree or disagree with various statements regarding the influence of each type of capital. The questionnaire was pre-tested to ensure that the items are clear, relevant, and capable of capturing the necessary data. While questionnaire was used to collect the responses on the variables under investigation, interview was tailored on exploring and exposing the variables involved in case study analysis. The instruments were validated by experts and pre-tested for reliability, with all constructs yielding Cronbach's alpha values above 0.7, confirming internal consistency.

The data collection process was conducted by the authors personally to ensure a high response rate and to clarify any questions that the respondents may have about the instrument. Of course, there were attendant follow-ups. The collected data were coded and analyzed using SPSS Version 25, comprising descriptive statistics, correlation analysis, and Ordinary Least Squares (OLS) regression models. The information collected via structured interview was analysed using thematic content analysis. Descriptive statistics, including mean, frequency, and percentage, was used to summarize the responses to the research questions. These statistics provided hints as per the influence of: financial capital on market share; human capital on turnover; social capital on customer satisfaction; and intellectual capital on customer loyalty; respectively. For hypothesis testing, simple regression analysis was employed to determine the extent to which each form of capital influences entrepreneurial performance.

Below are the linear regression specifications using our preferred acronyms:

$$EPit = \beta_0 + \beta_1 WCit + ui + \epsilon it = \beta_0 + \beta_1 FC + \beta_2 HC + \beta_3 SC + \beta_4 IC + \mu$$

where the Variables Description are as indicated here-under:

#### Variable Description

|               |                                                      |
|---------------|------------------------------------------------------|
| EPit          | Respective Entrepreneurial Performance               |
| FC            | Financial capital                                    |
| HC            | Human capital                                        |
| SC            | Social capital                                       |
| IC            | Intellectual capital                                 |
| WCit          | Respective Wealth Creation Factors (indicated above) |
| $\beta_0$     | Intercept                                            |
| $\beta_i$     | Coefficient of Respective Wealth Creation Factors    |
| ui            | Unobserved factor-specific effects                   |
| $\epsilon it$ | distinctive error term.                              |

The decision rule for hypothesis testing was based on the p-value derived from the regression analysis. If the p-value for any of the independent variables (financial, human, social, or intellectual capital) is less than 0.05, the null hypothesis is rejected, indicating a statistically significant influence on entrepreneurial performance. Conversely, if the p-value is greater than or equal to 0.05, the null hypothesis is not rejected, suggesting that the particular form of capital does not have a statistically significant influence on the entrepreneurial performance of pig farmers in South-South Nigeria.

#### 4.0 Data Analysis

**Table 1: Socio-Economic Characteristics - Respondent Profile**

| Variable           | Frequency | Percentage |
|--------------------|-----------|------------|
| Male               | 114       | 92.7%      |
| Female             | 9         | 7.3%       |
| Urban dwellers     | 105       | 85.4%      |
| Age (below 31)     | 9         | 7.3%       |
| Age (31–50)        | 96        | 78%        |
| Above 50           | 18        | 14.7%      |
| Formal education   | 45        | 36.6%      |
| Informal education | 78        | 63.4%      |

**Interpretation:** The sector is dominated by young, male, informally educated, urban dwellers with limited technical efficiency.

#### 4.1 Discussion of Findings

The data analysis conducted revealed the following findings among pig farmers in South-South Nigeria:

**1. Financial Capital and Market Share** - The finding that financial capital has a positive and significant influence on market share ( $\beta = 0.783$ ,  $p = 0.000$ ) suggests that pig farmers who have greater access to financial resources are better positioned to expand their market presence. This result is supported by numerous studies, including: Olaoye (2019), Etuk and Akpan (2023), Nsumba (2019), etc. These studies reinforce the idea that financial capital is a core driver of business reach and competitiveness in agriculture.

**2. Human Capital and Customer Satisfaction** - The finding that human capital has a positive and significant influence on customer satisfaction ( $\beta = 0.884$ ,  $p = 0.000$ ) indicates that pig farmers with better skills, education, training, and experience are more capable of meeting customer expectations. Knowledgeable farmers are more likely to engage in hygienic practices, proper animal health management, and quality control, which results in higher quality pork products. Additionally, educated and skilled entrepreneurs are more likely to value customer feedback, practice good communication, and improve service delivery, which enhances the overall customer experience and satisfaction. Therefore, human capital enables farmers not only to produce but also to deliver value in ways that meet or exceed customer needs. This result finds strong support in the literature, including: Afolabi et al. (2025). Prasetyo and Kistanti (2020). Zainol et al. (2018), Mthanti and Ojah (2018), etc. Collectively, these studies emphasize that the ability to satisfy customers begins with the knowledge, expertise, and competence of the entrepreneur.

**3. Social Capital and Turnover** - The finding that social capital has a positive and significant influence on turnover ( $\beta = 0.730$ ,  $p = 0.000$ ) suggests that pig farmers who maintain strong relationships, networks, and community ties tend to generate higher revenue. Social capital enables entrepreneurs to access critical information, resources, and markets through trusted networks. These connections may also lead to cooperative marketing efforts, better access to customers, referrals, and support systems that enhance business continuity. The ability to tap into both bonding and bridging social capital allows farmers to scale production and improve sales, thereby increasing turnover. Several empirical studies support this result, including: Paul and Amin (2024), Pant, Kumar, and Joshi (2024). Eseyin (2024). Yani et al. (2020), etc. These studies validate the finding that network strength and social integration are valuable assets in enhancing business outcomes such as turnover.

**4. Intellectual Capital and Customer Loyalty** - The finding that intellectual capital has a positive and significant influence on customer loyalty ( $\beta = 0.788$ ,  $p = 0.000$ ) highlights that farmers who exhibit high levels of entrepreneurial alertness, innovation, knowledge, and strategic thinking are more likely to retain customers over time. Intellectual capital helps entrepreneurs identify customer needs early, adapt to changes in preferences, and continuously improve product offerings. In the context of pig farming, this may involve adopting improved breeding techniques, creating unique pork products, or introducing customer-focused services such as scheduled delivery or hygienic packaging. Customers are more likely to remain loyal to businesses that consistently deliver value, innovation, and reliability. Several studies affirm this conclusion, including: Joseph, Umogbai, Kwahar, and Adudu (2023). Zhang, Yang, Shen, and Li (2024). Idigo (2023). Ognjanović and Slavković (2022), etc. These studies collectively suggest that intellectual capital fosters long-term customer relationships, loyalty, and sustained business growth.

## 5.0 Conclusion

The findings indicate that the various forms of capital—financial, human, social, and intellectual—play a central role in shaping key dimensions of entrepreneurial performance among pig farmers. Their statistically significant and positive effects suggest that these capital forms are not just passive resources but active drivers of business competitiveness, satisfaction levels, financial sustainability, and long-term customer engagement. This underscores the importance of internal and external resource accumulation and utilization in achieving measurable outcomes such as market expansion, consistent revenue growth, and customer retention. The strength of the regression coefficients further illustrates that these effects are not marginal but substantial, demonstrating that resource-based capabilities are deeply embedded in the success mechanisms of these farming enterprises. More broadly, these results highlight the interconnectedness between resource mobilization and strategic outcomes within agricultural entrepreneurship. The findings suggest that pig farmers who are able to leverage financial strength, skilled human inputs, social networks, and knowledge-based innovations are more likely to exhibit strong business performance indicators. These performance measures—market share, customer satisfaction, turnover, and loyalty—reflect both operational effectiveness and long-term viability, indicating that success in this context is resource-contingent. The significant outcomes also point to a broader narrative about how small-scale agribusinesses function within their socio-economic environments, where both tangible and intangible resources translate into competitive advantage and measurable growth.

## 5.1 Recommendations

1. Microfinance institutions should develop flexible, low-interest loan schemes specifically tailored to small-scale pig farmers; such financial products should aim to support business expansion and enable farmers to increase their operational capacity, thereby improving their competitiveness in the local market.
2. Agricultural Training Institutes and Extension Service Providers should intensify efforts to provide continuous, practical training in animal husbandry, farm hygiene, customer service, and product quality as well-trained pig farmers are more likely to meet or exceed customer expectations, resulting in higher levels of satisfaction.
3. Pig Farming Cooperatives and Community-Based Organisations should prioritize fostering stronger networks among members. Initiatives such as cooperative marketing, bulk purchasing of feed, and shared access to market intelligence can help farmers increase their sales volume and overall financial performance.
4. The Federal Ministry of Agriculture should institute organizations focused solely on agricultural innovation in order to engage pig farmers with access to current research, new breeding techniques, and market trends. Providing such resources will empower farmers to develop unique strategies, maintain product quality, and consistently meet the evolving needs of loyal customers.

## 5.2 Contribution to Knowledge

This study contributes significantly to the existing body of literature by addressing a notable gap concerning the influence of various forms of capital—financial, human, social, and intellectual—on entrepreneurial performance within the context of pig farming in South-South, Nigeria. While prior studies have explored the general relationship between entrepreneurial resources and business performance across diverse sectors, this research provides novel insights by focusing specifically on pig farming, a critical yet under-researched segment of Nigeria's agricultural economy. By empirically demonstrating how each form of capital distinctly affects dimensions of entrepreneurial performance—such as market share, customer satisfaction, turnover, and customer loyalty—this study enhances the understanding of resource-based dynamics in a localized agribusiness context. Furthermore, the study advances the discourse on entrepreneurial capital by empirically validating the unique role of intellectual capital—particularly entrepreneurial knowledge, innovation, and alertness—in fostering customer loyalty among pig farmers. Existing literature has often emphasized digital capabilities and general networking across industries, but this research extends the conversation by contextualizing these constructs within traditional agriculture. It also bridges the empirical gap left by earlier studies that did not explore the combined or individual effects of social and intellectual capital on turnover and customer engagement within pig farming. By situating these findings within the localized socio-economic landscape of South-South, Nigeria, the study offers a focused, context-driven contribution that strengthens the theoretical and empirical foundation for future agricultural entrepreneurship research in Nigeria and comparable developing economies.

## 5.3 Limitations of the Study

The limitations of this study were x-rayed from 5 perspectives, namely: geographical scope, content, sector, specified challenges, and bias of self-reporting.

Geographically, the study centered around pig farmers in the 6 states of Akwa-Ibom, Bayelsa, Cross-River, Delta, Edo and Rivers; In South-South Nigeria. So, the findings may not apply to farmers in other regions or countries. Content-wise, the study covered four identified wealth

creation factors of financial capital, human capital, social capital, and intellectual capital, as the independent variables; and four designated entrepreneurial performance indicators of market share, customer satisfaction, turnover and customer loyalty, as the dependent variable. Other influencing externalities like climate conditions, government policies and diseases like swine fever as well as other performance indicators like profit and growth are held constant.

Sectorally, the study is limited to pig farming, which is a growing agricultural industry in the region. The unit of analysis is individual pig farmers in South-South Nigeria, with data collected from their business operations, practices, and performance indicators. Additionally, the study relied on self-reported data from the farmers, which could be biased or inaccurate due to personal opinions or misunderstandings. Finally, the sample size of farmers selected for the study may not fully represent the entire pig farming community in South-South Nigeria, which could limit the generalizability of the results.

#### **5.4 Suggestions for Further Studies**

Based on the limitations of this study, future research could explore pig farmers in other parts of Nigeria or include other types of agricultural businesses to see if the results are similar. Studies could also use more objective data, such as farm records or sales reports, to reduce the risk of bias from personal responses. In addition, future work might examine other possible factors that affect entrepreneurial performance, like access to technology, government support, or environmental challenges. Researchers could also look into broader issues beyond wealth creation, such as the impact of climate change or market fluctuations on pig farming. Lastly, using a larger and more diverse group of farmers could help make the findings more applicable to the wider pig farming community.

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