

TITLE PAGE

**ASSESSING PALM TREE PROCEEDS AND SUSTAINABLE GROWTH OF SMALL
AND MEDIUM ENTERPRISES (SMEs) IN NIGERIA**

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GOU/U22/MAN/311

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APPROVAL PAGE

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DEDICATION

This work is dedicated to God.

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ABSTRACT

This study examined the assessment of palm tree proceeds and sustainable growth of Small and Medium Enterprises (SMEs) in Nigeria. Specifically, the study investigated the influence of palm kernel oil proceeds on employment generation among SMEs in Nigeria, the effect of palm kernel cake production on market share expansion of SMEs, and the contribution of palm kernel shell utilization to sustainable economic growth of SMEs. The study was anchored on the Resource-Based Theory and Sustainable Livelihoods Theory. A survey research design was adopted. The population consisted of 180 staff members from selected palm oil processing SMEs in Enugu State. Due to the manageable population size, the entire population was used as the sample through the census method. Data were collected using a self-structured questionnaire titled Palm Tree Proceeds and SME Growth Questionnaire (PTP-SMEGQ). The instrument was validated by experts and yielded a Cronbach's Alpha reliability coefficient of 0.84. Mean scores and standard deviations were used to answer the research questions, while Chi-square (χ^2) statistics were used to test the hypotheses at a 0.05 level of significance. The findings revealed that palm kernel oil proceeds significantly influence employment generation among SMEs (Grand Mean = 3.14; $\chi^2 = 33.42$, $p < 0.05$). Palm kernel cake production was also found to have a significant effect on market share expansion of SMEs (Grand Mean = 3.14; $\chi^2 = 35.16$, $p < 0.05$). Furthermore, palm kernel shell utilization significantly contributed to sustainable economic growth of SMEs (Grand Mean = 3.15; $\chi^2 = 38.24$, $p < 0.05$). The study concluded that palm tree proceeds are essential for enhancing employment generation, market share expansion, and sustainable economic growth among SMEs. It recommended improved processing technologies, strengthened market linkages, and enhanced value addition practices among palm oil processing SMEs.

Keywords: Palm Tree Proceeds, Palm Kernel Oil, Palm Kernel Cake, Palm Kernel Shells, Employment Generation, Market Share, Sustainable Economic Growth, SMEs

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Small and Medium Enterprises (SMEs) play a critical role in economic development by promoting employment generation, income distribution, and grassroots innovation. In developing economies such as Nigeria, SMEs constitute the backbone of local economic activities and serve as a major source of livelihood for a large proportion of the population. They operate in diverse sectors including retail, services, agriculture, and light manufacturing, particularly within urban and semi-urban areas. According to Ajanaku (2025), SMEs are crucial for revenue growth and business sustainability in Nigeria's business and economic development landscape. Despite their importance, many SMEs struggle to achieve sustained growth due to managerial, operational, and environmental challenges. One of the major internal factors influencing their survival and expansion is the utilization of agricultural proceeds, particularly from palm tree products, which have been identified as central to business sustainability challenges in Nigeria (Aleru, Agbugba & Taremwa, 2025). Effective utilization of palm tree proceeds has therefore become a strategic tool for business growth in competitive local markets.

The palm tree is native to Nigeria, and the oil palm (*Elaeis guineensis*) flourishes in Nigeria's tropical climate. Clark, Akpan, and FCICN (2025) reported that the oil palm tree is a native tree of Nigeria and has good adaptability with the ecological conditions in Nigeria and is a valuable farm crop. Nigeria used to be the world's biggest producer of palm oil, but it is now surpassed by Indonesia and Malaysia. Even in this downfall, the cultivation of palms is still an important economic activity, especially in the south and eastern part of Nigeria. In Nigeria,

SMEs play a crucial role in Nigeria's economic development by contributing substantial amounts of taxes and other levies to the government (Edobor and Sambo-Magaji 2025). The palm tree has several products such as palm oil, palm kernel oil, palm kernel cake, and palm kernel shells, which have their respective market application and economic potentials. These are used as raw materials in some industries and are income-generating for SMEs.

The kernel of the palm fruit is an important product, and the palm kernel oil obtained from this is used in many industries and domestically. It is utilized in cosmetic manufacture, soap, detergent, and cooking oil production. Palm oil and kernels are important sources of income generation for small-scale oil palm enterprises as they are products that can be sold (Akakpo & Kumi-Kyere, 2026). Palm kernel oil (PKO) is a good source of jobs, especially in rural areas due to its production and marketing. Processing and marketing of palm kernel oil is a common activity of many SMEs, which leads to income generation and poverty reduction. With the funds raised from palm kernel oil sales, these businesses can expand their operations, invest in improvements and upgrade their technology, and hire more employees. According to Salami, Zubair, Adenuga and Akinpade (2025), entrepreneurial development programs should be designed to help SME owners develop entrepreneurial skills, which would enable them to run their enterprises sustainably to meet the palm kernel oil (PKO) proceeds maximisation target.

Another important product from the Palm tree is Palm kernel cake (also known as palm kernel meal), which is produced after extracting oil from palm kernel. This residue is rich in protein and is mainly used as an animal feed, especially for livestock like cattle, poultry, and pigs. Agricultural SMEs are crucial contributors to economic growth and sustainability in most of the developing countries in terms of revenue generation (Abdulraheem, 2025). Palm kernel cake is a relatively cheap feed ingredient that helps the palm oil industry sustain livestock activity and the resulting market opportunities for SMEs. The increasing demand for animal

feed must be a boon for SMEs involved in the manufacture and sale of palm kernel cake. Export revenue from palm oil and derivatives became significant (Yadollahi, Ardeshir and Ardeshir 2026), thus showing the huge economic potential of palm tree products. Production efficiency, product quality, and marketing strategies play an important role in determining the market share of SMEs in the palm kernel cake industry.

Palm kernel shells, the hard outer shell of the palm kernel, have become a hot topic as a source of renewable energy and as an industrial raw material for producing chemicals and materials. The contribution of oil palm enterprises to the country's economic development by export levy revenue is significant (Gultom, Nadir, and Leuanan, 2025). Palm oil shells are utilized as fuel for palm oil mills, raw material for activated carbon production, and raw material for the production of building materials. The utilization of palm kernel shells in SMEs for value-added products helps in resource efficiency and environmental sustainability, thus promoting sustainable economic growth. Cassie (2025) examined sustainable economic development and diversification; the importance of economic growth, GDP, and revenue generation for sustainable development was pointed out. Palm kernel shells can be used to cut down on waste and also create extra streams of income for palm oil producers.

The sustainable economic growth of SMEs in Nigeria is hinged on their efficient use of available resources and value addition of agricultural products. Shah, Hussain, Ul Ain, Manan and Zeb (2026) argue that one of the points of sustainable development is the potential for revenue generation in green urban and rural areas. Palm tree processing by SMEs brings about sustainable economic development through employment generation, income generation, and value addition. The agricultural industry is the base of the development of SMEs in rural areas, especially in the palm tree industry and processing. The agricultural products have been observed to contribute to economic growth and development in raising agricultural real GDP

by Agbolosoo, Akey, Asiedu and Midamba (2026). This highlights the importance of the palm tree value chain for Nigeria's economic development.

The employment creation potential of palm tree earnings is also critical in a country like Nigeria where unemployment, particularly among youth, is a serious problem. Olawole (2025) posited that poor governance, inadequate revenue, insecurity, and others are some factors that impact socio-economic development in Nigeria. SMEs within the palm tree value chain create direct jobs in the cultivation, harvesting, processing and marketing of palm tree products and indirect jobs in related industries like transportation and packaging. Iddrisu, Abubakari and Tetteh (2026) noted that some proceeds have encouraged sustainable agriculture and financial development in some agricultural activities. Palm tree products generate revenues for SMEs to grow and create employment opportunities that help to alleviate poverty and stimulate economic development. Akinrinde et al (2025) evaluated the effectiveness of SMEs in promoting economic growth and mentioned that the SMEs have great potential to contribute to the export capacity of Nigeria and the generation of foreign exchange earnings.

Several factors, such as product quality, pricing, distribution channels, and customer relations affect the market share of the SMEs in the palm tree value chain. Ogunlade, Olaniyan and Babalola (2025) are evaluating the processing methods in bio-products and their impact on small-scale farmers and gender. Good management of these factors by SMEs can help them gain market share and become more competitive. Palm tree products are in increasing demand locally and globally, which allows SMEs to increase their market share. Arukwe et al (2025) noted that effective waste management systems are important to minimize environmental impacts and provide for viable investment. This is especially important for the palm tree value chain SMEs, where sustainable practices can boost their competitiveness in the market.

The way laws and guidelines are set up, as well as the level of policy support for SMEs in Nigeria, play a part in how palm tree products are turned into tools for long-term economic growth in the country. Ife Udeh Odo and Ugwu (2025) reported that development financing through the Central Bank of Nigeria has a major influence on the growth and development of the economy. Through the implementation of policies that focus on agricultural processing, engaging in value-added activities, and development of SMEs, more palm tree proceeds can be channeled towards economic growth that is sustained over time. Besides this, based on Ikon, Usoro and Idung (2025), skills in business education can play a role in the expansion of small-scale businesses, and So, capacity building would be a critical element in unlocking the full potential of palm tree proceeds. To really understand the impact of palm tree proceeds on the growth of SMEs, we need a holistic view of the possibilities as well as the barriers within the palm tree value chain.

Still, even though the role of palm tree proceeds in the development of SMEs is well acknowledged, a lot of SMEs in Nigeria still perform below average in this area of business engagement. Besides insufficient financing, lack of modern production technologies, limited market connections, and a general lack of strong institutional support result in the underutilization of palm tree products. Nyamboga (2026) pointed out that, to sustain the agribusiness SMEs in emerging economies, strategic decisions and a strong entrepreneurial mindset are key elements. Such an issue necessitates a research study grounded in data to discover how palm tree products drive sustainable economic growth of SMEs in Nigeria, and this is what the current study hopes to address.

1.2 Statement of the Problem

Small and Medium Enterprises in Nigeria play a vital role in employment generation, income creation, and economic development. Despite their importance, many SMEs experience slow

growth, stagnation, or outright failure within a short period of operation. A major social concern arising from this situation is the loss of jobs, reduced household income, and weakened economic activities. SMEs in the palm tree value chain increasingly face challenges related to limited processing capacity, inadequate market access, and poor value addition. According to Olawole (2025), factors such as poor governance, inadequate revenue, and insecurity affect socio-economic development in Nigeria, further exacerbating the challenges faced by SMEs in the palm tree value chain. These challenges negatively affect their ability to generate sustainable income and create employment opportunities. As a result, SMEs struggle to expand, sustain operations, and contribute meaningfully to community development.

Although several studies have examined factors affecting SME performance in Nigeria, much emphasis has been placed on finance, government policies, technology, and entrepreneurship development. Limited attention has been given to palm tree proceeds as a critical internal factor influencing sustainable economic growth, particularly at the local government level. Existing studies often generalize SME challenges without empirically isolating palm tree products such as palm kernel oil proceeds, palm kernel cake production, and palm kernel shell utilization. According to Nyamboga (2026), strategic decisions and entrepreneurial mindset are essential for sustaining agribusiness SMEs, yet the specific contribution of palm tree products to sustainable growth remains underexplored. Furthermore, there is a noticeable lack of location-specific studies focusing on the assessment of palm tree proceeds and SME growth in Enugu State. This creates a research gap in understanding how palm tree proceeds influence sustainable economic growth of SMEs within this local context. Addressing this gap is necessary to provide evidence-based insights that can improve SME sustainability and growth in the palm tree value chain.

1.3 Objectives of the Study

The main objective of this study is to assess palm tree proceeds and sustainable economic growth of Small and Medium Enterprises (SMEs) in Nigeria. Specifically, the study seeks to:

1. examine the influence of palm kernel oil proceeds on employment generation among SMEs in Nigeria.
2. assess the effect of palm kernel cake production on market share expansion of SMEs in Nigeria.
3. determine the contribution of palm kernel shell utilization to sustainable economic growth of SMEs in Nigeria.

1.4 Research Questions

The following research questions guide the study:

1. How does palm kernel oil proceeds influence employment generation among SMEs in Nigeria?
2. How does palm kernel cake production affect market share expansion of SMEs in Nigeria?
3. How does palm kernel shell utilization contribute to sustainable economic growth of SMEs in Nigeria?

1.5 Research Hypotheses

The following alternate hypotheses are formulated to guide the study:

H₁: Palm kernel oil proceeds have a significant influence on employment generation among SMEs in Nigeria.

H₂: Palm kernel cake production has a significant effect on market share expansion of SMEs in Nigeria.

H₃: Palm kernel shell utilization has a significant contribution to sustainable economic growth of SMEs in Nigeria.

1.6 Significance of the Study

The results of this study will be relevant to theory and practice as they will provide useful information to various stakeholders of Nigerian SMEs, such as the owners of the SMEs, policymakers, agricultural development agencies, researchers, etc., especially in the development of the palm tree value chain in Enugu State, Nigeria.

This study has a theoretical background that includes Resource-Based Theory (RBT) and the Sustainable Livelihoods Theory (SLT). The Resource Based Theory focuses on the necessity of internal resources and capability to obtain competitive advantage and the expansion of the organization. From resource-based thinking, the long-term performance of the palm oil business is associated with the positive effect of financial markets and economic factors, as stated by Hadi, Handoko, Lindawati and Halim (2025). The study will test the applicability of Resource Based Theory in relation to palm oil processing enterprises in developing economies, looking at the impact of palm kernel oil proceeds, palm kernel cake production, and utilisation of palm kernel shell (PKS) on the sustainability of the economic growth of the small and medium-scale enterprises. The results will help to reinforce the theoretical basis of the role of agricultural resources as strategic assets for developing the business, particularly for the SMEs that have limited financial resources and structural limitations. Panjaitan, Sardjono and Nursadi (2026) highlighted that legal and policy aspects were to reinforce business investment as one of the factors that can affect the use of the resources, supporting the resource-based perspective.

The study is also informed by the Sustainable Livelihoods Theory, which puts emphasis on diversification of livelihoods and the accumulation of assets for sustainable development. The

goal of sustainable economic development and diversification is to focus on economic growth, GDP and revenue generation (Cassie, 2025). This theory offers a lens into the relationship between access to and use of palm tree resources and sustainable economic development of SMEs. The study will expand the application of the Sustainable Livelihoods Theory to SMEs in Nigeria by making the connection between the proceeds of palm tree and employment generation, expansion of market share, and sustainable economic growth. The relevance of this theoretical framework was highlighted by Iddrisu, Abubakari and Tetteh (2026), who pointed out that some farmers' benefits from the agricultural activities have supported sustainable agriculture and financial development. These theories are integrated into the study to improve the conceptual structure of the study and explain the role of resource utilization and livelihood strategies in the sustainable growth of SMEs.

The practical contribution of the study will be to owners of SMEs, policy makers, agricultural development agencies, and researchers. The results of the study will have practical implications for SME owners as it will give them insights into the effectiveness of using the proceeds of palm trees to boost business growth, employment generation, and market competitiveness. Palm oil and kernels are major sources to the income of small scale oil palm businesses for sale (Akakpo and Kumi-Kyere 2026). Knowledge of how palm kernel oil proceeds affects employment generation, how the production of palm kernel cake affects the expansion of market share, and how using palm kernel shell for sustainable economic growth will benefit the business owner will enable them to better enhance their processing practices, strengthen market linkages, and attain sustainable growth.

The study will provide relevant information for policymakers and the agricultural development agencies to direct policy development, training programmes, and support measures for the development of the value chain for palm trees among SMEs with evidence-based information.

Ife, Udeh, Odo and Ugwu (2025) argue that interventions in development finance have very great effects on the economic growth and development of the nation. The results will help in the design of interventions to ensure the sustainability of businesses, job creation, and rural economic development in Enugu State.

The study will also help researchers in their studies, which will add to the growing body of literature on the growth of SMEs as empirical evidence of palm tree proceeds as a determinant of sustainable economic growth. The study will also provide a benchmark for further research on value chain and SME performance in similar settings.

To sum up, theoretically, the study will contribute to the application of the Resource-Based and Sustainable Livelihoods theories in the understanding and explanation of the growth of SMEs, while practically it will provide recommendations that can enhance the utilization of palm tree resources for SME growth and sustainable growth of SMEs in Enugu State, Nigeria.

1.7 Scope of the Study

The study is restricted to Small and Medium Enterprises (SMEs) in the palm oil processing industry in Enugu State, Nigeria, with special attention to selected SMEs in Enugu Metropolis. The study looks into the effect of variables of palm tree proceeds – palm kernel oil proceeds, palm kernel cake production, and palm kernel shell utilization on sustainable economic growth.

This study is carried out on selected palm oil processing SMEs in Enugu Metropolis, namely Ayogu Palm Oil Industries, Ugwu Palm Oil Processing, Chinedu Oil Mills, Eze Palm Oil Enterprises, Ogbonna Palm Kernel Processors, Nnamdi Oil Processing, and Okonkwo Palm Products. These businesses were chosen as they are active and operational businesses in the palm oil processing industry and are regularly involved with palm tree products, making them appropriate for measuring the impact of palm tree products on sustainable growth.

The scope will include palm oil processing SMEs such as enterprises involved in palm oil extraction and palm kernel oil extraction, palm kernel cake production, and palm kernel shells processing. These businesses offer a meaningful context for the analysis of employment creation, market share development, and sustainable economic growth effects of palm tree proceeds.

Geographically, the study is restricted only to Enugu State and is not extended to other locations. Under the variables, the study only addresses the palm tree proceeds variables and their effects on the sustainable economic growth indicators, including employment generation, market share expansion, and sustainability of the business.

Additionally, only those businesses that currently operate within the specified geographic region are included in the study, thereby capturing the impact of the type of business in place and how they affect SME growth.

1.8 Limitations of the Study

Some limitations are found in this study that will restrict the generalisability of the findings. The study has been geographically restricted to selected palm oil processing SMEs in Enugu Metropolis. Therefore, the results cannot be completely generalised to other SMEs in other parts of Enugu State or Nigeria where the environment of the business and/or market conditions are different.

Secondly, the research article covers only a handful of companies, namely Ayogu Palm Oil Industries, Ugwu Palm Oil Processing, Chinedu Oil Mills, Eze Palm Oil Enterprises, Ogbonna Palm Kernel Processors, Nnamdi Oil Processing, and Okonkwo Palm Products, from which these organizations may provide a hint to the production of palm fruits and growth of SMES

but might not cover all the different types of SME. In particular the ones that are into other sectors such as manufacturing and services.

The last limitation is the use of primary data from questionnaires. Participants' answers might include personal bias, exaggeration, and even unwillingness to reveal the truth, thereby impacting the trustworthiness of the data.

1.9 Operational Definition of Terms

For clarity and proper understanding, the following terms are operationally defined as used in this study:

Palm Tree Proceeds: Refers to the income, products, and economic benefits derived from the processing and sale of palm tree products, including palm kernel oil, palm kernel cake, and palm kernel shells.

Palm Kernel Oil: The oil extracted from the kernel of the palm fruit, used in various industrial and domestic applications including cooking, cosmetics, and soap production.

Palm Kernel Cake: The residue left after oil extraction from palm kernels, which is rich in protein and used primarily as animal feed.

Palm Kernel Shells: The hard outer covering of the palm kernel, used as a source of renewable energy and raw material for industrial applications.

Small and Medium Enterprises (SMEs): Businesses operating on a small to medium scale in terms of capital, workforce, and turnover, particularly within the palm oil processing sector.

Sustainable Economic Growth: The ability of a business to achieve continuous growth in economic performance while maintaining environmental responsibility and social equity.

Employment Generation: The creation of job opportunities for individuals through business operations and expansion.

Market Share Expansion: The increase in the proportion of total market sales or demand that a particular business or product accounts for within a specific industry.

Value Addition: The process of increasing the value of raw materials through processing, transformation, or product development.

Resource Utilization: The effective use of available resources, including agricultural products, to achieve business objectives and sustainable growth.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Palm Tree Business

Palm tree business includes growing, harvesting, processing, and selling products from the palm tree, especially oil palm (*Elaeis guineensis*). Palm tree business has been found to be mainly conducted by smallholder and SME activities, which are significant to economic development efforts (Akakpo and Kumi-Kyere, 2026). In Nigeria, palm tree business is a significant venture due to the presence of indigenous palm trees, which have been grown for years. According to Clark, Akpan, and FCICN (2025), the oil palm tree is native to the Nigerian ecological environment and has huge potential in this environment. Smallholder farmers, processors, traders, and exporters are all stakeholders in the palm tree business, and they have their own unique roles in the value chain.

There are several products that make up the palm tree business, which are provided by the palm tree. Yadollahi (2026) stated that the palm tree produces palm oil, palm kernel oil, and other derivatives, which are important export earnings. Oil palm fruit yields 2 types of oils: crude palm oil from mesocarp, palm kernel oil from kernel. García-Maza, Rojas-Flores and González-Delgado (2025) explained that the palm tree yields two different kinds of oil: crude palm oil (CPO), which is extracted from the mesocarp, and palm kernel oil. The products are used differently and have also different economic impacts on the palm tree business.

The palm tree business also produces different by-products which have economic value. The transformation of the oil palm products by SMEs to crude palm oil is also called palm oil yield

by Panjaitan, Lubis, Silitonga and Faris (2025). Palm kernel cake, which is used for animal feed, is one of the by-products from palm oil processing, while palm kernel shells are used for fuel and as industrial raw materials. According to Akakpo and Kumi-Kyere (2026), the performance of the small-scale enterprises of oil palm is greatly influenced by the sale of palm oil and kernels. These by-products can be used effectively, improving the palm tree business's profitability and sustainability.

The palm tree business is confronted with several issues that hinder the growth and sustainability of this business. Panjaitan and Nursadi (2026) stated that the legal and policy aspects must be established to enhance and improve business investment in the palm oil plantation industry. The development of the palm tree business is hampered by various factors, including inadequate processing technologies, limited access to financing, inadequate market infrastructure, and weak institutional support. In sustainable palm oil, Afrino, Syahza, Suwondo, and Patria (2026) highlighted the importance of partnership models to promote value-added and morality-based palm oil business operations. To achieve the full potential of the palm tree business, the potential challenges need to be addressed.

Despite these challenges, the palm tree business continues to be an important source of livelihood for many Nigerians. Oil palm enterprises contribute significantly to the economic development of the country as export levy revenues, according to Leuanan and Nadir (2025). The palm oil business is a labour-intensive business compared to a capital-intensive business, especially palm oil farms. There are various levels of jobs for the palm oil business, which include cultivation, harvesting, processing, and marketing. Similarly, Situmorang, Anggusti and Sinaga (2025) reported that the palm oil industry is a strategic industry for Indonesia's economy, which can be argued to be applicable for Nigeria as well. The palm oil business must continue to grow if sustainable economic development is to be achieved.

The market trends and technological innovations also play a role in the palm tree industry. Tax regulatory reform has a substantial impact on tax management strategies and the sustainability of business in the palm oil industry (Tandiawan, 2025). The palm tree business can be more efficient and profitable with the implementation of improved processing technologies and modern business practices. Financial markets and economic factors have a positive effect on the long-term performance in the palm oil business, as stated by Hadi, Handoko, Lindawati, and Halim (2025). The adaptability to the changing market and implementation of best practices is crucial to making palm tree business a success.

In conclusion, the palm tree business is a vital component of Nigeria's agricultural sector, providing significant economic benefits through employment generation, income creation, and value addition. Good palm tree business management needs to understand the products, processes, and challenges of the value chain. SMEs play a significant role in the palm tree industry for a sustainable economy and development in rural areas.

2.1.2 Palm Tree Proceeds

Palm tree proceeds are defined as any income, products, and economic benefits that come from the cultivation, processing, and marketing of palm tree products. Palm oil and kernels are important sources of income to small-scale oil palm enterprises in terms of their sale (Akakpo and Kumi-Kyere 2026). Millions of Nigerians, mostly in the rural areas, rely on the income generated from palm tree products to earn a living. Oghoro and Achoja, Omoviroro and Enwa (2025) studied the productivity and profitability of the oil palm production business and emphasized the need for palm tree revenue to make the business viable. The wide range of palm tree products creates various income generation opportunities for SMEs.

The income from palm kernel oil proceeds is one of the major sources of income from palm tree processing. Oil palm proceeds can finance medical expenses and school fees of the wards, reflecting the significant economic effects of oil palm proceeds on household welfare, according to Mweta et al (2025). Palm kernel oil is produced by extracting the oil from the palm kernel, and the product is sold to different industries. Preparation capacity is enhanced, and SMEs grow their business with the working capital generated from palm kernel oil sales. Maintaining healthy palm trees is crucial to get maximum yields and income from oil palm, so that is why all the treatment methods for *Ganoderma* fungi in oil palm trees were studied by Razali, Morsin, Rashidi and Rahim (2025).

Palm kernel cake proceeds are generated from the sale of the residue from oil extraction from palm kernels. Abdulraheem (2025) pointed out that agricultural SMEs play a crucial role in economic growth through the generation of income and sustainability. Palm kernel cake sales are a way to secure the overall profitability of palm oil processing businesses. Palm kernel cake is a by-product that is stable due to its use as animal feed. Salami et al (2025) pointed out that programmes for entrepreneurial development enable the owners of SMEs to acquire the necessary skills for sustainable business operations to realize the maximum benefit from the proceeds of the palm kernel cake.

The proceeds from the sale and use of the hard shell of the palm kernel are called palm kernel shell proceeds. Cassie (2025) argues that economic growth, GDP, and revenue generation are the things that need to be focused on to achieve sustainable economic development and diversification. Palm kernel shells can also be used as fuel, for activated carbon production, and in construction. Palm kernel shell (PKS) sales are another source of income for palm oil processors. Improving the value-added palm oil business and morals-based palm oil business

was the point of Afrino, Syahza, Suwondo, and Patria (2026) to discuss by increasing the effective use of palm kernel shells.

To manage the proceeds of palm trees effectively, they need to fully understand the market dynamics and value chain relationships. Leuanan and Nadir (2025) noted that export levy revenues play a significant role in the economic development of the country by oil palm enterprises. The well-managed proceeds from palm trees can help SMEs to achieve sustainable growth and promote economic development. Palm tree products generate revenue, which can be used by SMEs to invest in improved technologies, to grow their businesses, and to create new jobs.

Finally, palm tree proceeds have become an important source of livelihood and economic gains for the SMEs in Nigeria. Palm tree products generate a range of income opportunities, which promote the sustainability and growth of the business. Appropriate management practices, market linkages and institutional support must be provided for the effective utilization of palm tree proceeds.

2.1.3 Small and Medium Enterprises

Small and Medium Enterprises (SMEs) are defined as enterprises with limited capital, relatively small numbers of employees and limited market penetration. They are considered important factors in economic development, employment, and innovation. Ajanaku (2025) stated that SMEs play a key role in revenue generation and the sustainability of businesses in Nigeria's business and economic development. SMEs are found in different sectors ranging from agriculture to processing to services to manufacturing. They are flexible and will easily adjust to business changes. In Nigeria, SMEs are playing a fundamental role in the economic

development of the country as they generate a lot of tax revenue and other levies for the government (Edobor and Sambo-Magaji, 2025).

SMEs are typically characterized as having limited resources and informal management structures. They tend to have fewer employees than larger companies and less funding. This puts them at greater risk from market fluctuations and economic uncertainties. In their view, Salami, Zubair, Adenuga, and Akinpade (2025) stated that entrepreneurial development programs provide the skills for the sustainability of a business by SME owners. However, the small size of SMEs means that they have close relationships with customers and communities, even though they are faced with such challenges. Such connections can be key to customer satisfaction and business success.

SMEs are especially important as they contribute greatly to employment in Nigeria. Akinrinde et al. (2025) noted that SMEs can stimulate economic growth and are potential exporters and foreign exchange earners for Nigeria. Because of the nature of the jobs of SMEs, many Nigerians get jobs in the SMEs, especially in rural areas. The value chain of palm tree production is complex and consists of several SMEs, thus offering a significant number of job opportunities in cultivation, harvest, processing and marketing. Ikon, Usoro and Idung (2025) observed that skills acquired in business education help the growth of SMEs; thus, capacity building is crucial in the development of SMEs.

Digitalization has become an important factor influencing the performance of SMEs. Digital technologies have the potential to make businesses more efficient and effective in reaching more people. For instance, digital marketing strategies enable SMEs to effectively market their products and services. According to Odukoya (2024), cloud computing can provide SMEs with benefits in terms of efficiency and competitiveness. However, several SMEs experience

challenges in digitalisation because of resource constraints. This has an impact on their competitiveness in the present markets.

Financial management is very important in the operation of SMEs. To run a business sustainably, effective financial planning and control are essential. Limited access to credit and poor cash flow management are some of the difficulties faced by SMEs. According to Abdulraheem (2025), the risk assessment of SMSEs in agriculture is crucial for financial performance and sustainability. If your business goes out of business, it is usually due to poor financial practice. Thus, enhancing financial management comes as a key factor in improving the performance of SMEs.

Another important attribute of SMEs is innovation. It helps them create new products and enhance the existing processes. Technological innovation will enable greater productivity and competitiveness in the market. According to Nyamboga (2026), strategic decisions coupled with an entrepreneurial attitude are critical to agribusiness SME sustainability in emerging economies. But innovation has to come with investment, and small businesses might find that difficult. Despite all this, innovation is still a key factor in the growth of SMEs.

HRM also contributes towards the performance of SMEs to a great extent. SMEs have a small workforce, and therefore employee productivity is very significant. HRM optimization enhances the provision of services and operational efficiency. Ogunlade, Olaniyan and Babalola (2025) evaluated processing methods of bio-based products and noted that human capacity is crucial in the operation of SMEs. However, many SMEs are without formal training programmes and HR structure. This will have a negative impact on employee performance and business results.

In conclusion, SMEs are vital to economic growth and development. They play a major role in employment, innovation, and income generation. Although SMEs are important, they are also faced with a lot of problems such as financial constraints and limited resources. These challenges need to be tackled if their growth and sustainability are to be improved.

2.1.4 Sustainable Growth

Sustainable growth is the ability of a business to sustain its economic growth and development in a continuous and balanced manner, while remaining environmentally responsible and socially just. Edobor and Sambo-Magaji (2025) noted that SMEs play an important role in the Sustainable Development Goals and economic development. Sustainable growth is a combination of economic growth and the responsible use of resources and the social and environmental effects. Cassie (2025) discussed sustainable economic development and diversification and the significance of economic growth, GDP, and economic revenue in sustainable development.

The economic aspect of sustainable growth is to maximise production, income, and employment sustainably. Akinrinde, Adelakun, Okogor and Ajayi (2025) reported that Nigeria's export economy has tremendous potential in SMEs if the interests of these companies are given their due consideration. SMEs' economic development plays a vital role in poverty reduction and enhancing living standards. Effective use of resources, value-added, and market development is required to ensure sustainable economic growth. According to Agbolosoo, Akey, Asiedu and Midamba (2026), agricultural products have a significant impact on agricultural real GDP, which helps in the growth and development of the economy.

The environmental dimension of sustainable growth requires reducing the negative environmental effects and increasing the efficiency of the use of resources. Some of the funds

generated from agricultural activities have been used for sustainable agriculture and financial development, according to Iddrisu and Abubakari (2026). SMEs in the palm tree value chain can play a role in environmental sustainability through good practice in the management of resources and waste reduction. Based on the research, Afrino, Syahza, Suwondo and Patria (2026) highlighted the need to scale up value-added and moral business activities of palm oil for sustainable development.

The social dimension of sustainable growth is related to the involvement of business activities in the communities for social well-being. Hwase (2025) identified the negative effects of socio-economic development in Nigeria as a result of poor governance, inadequate revenue allocation, and insecurity. Social sustainability is served by SMEs that help create jobs and income and stimulate community development. Oghoro, Achoja, Omoviroro and Enwa (2025) emphasized that the oil palm production business is profitable, which brings social welfare by providing jobs and income to individuals.

Economic, environmental, and social factors must be balanced within the business strategy and operation for sustainable growth. The development of science in the field of production and evaluation of production opportunities for palm trees to reduce environmental impacts is necessary for sustainable development, according to Yadollahi and Ardeshir (2026). Sustainable growth requires SMEs to consider profitability and responsibility towards the environment and social equity simultaneously. Sustainable business practices can improve competitiveness and sustainability.

To conclude, sustainable growth is crucial for the success of SMEs and the growth of the economy in general. Sustainable growth requires economic, environmental, and social factors to be considered alongside business activities. SMEs in the palm tree value chain have a huge

potential to play their part in sustainable economic growth if they are managed to utilize resources and add value to them.

2.2 Theoretical Framework

2.2.1 Resource-Based Theory

The Resource-Based Theory (RBT) is the theory that provides a way to understand how companies gain competitive advantage and sustainable growth by effectively using their internal resources and capabilities. The theory has developed through the works of Penrose (1959), Wernerfelt (1984), and Barney (1991), who claimed that firms are collections of resources that can be used to gain competitive advantage. The theory suggests that valuable, rare, inimitable, and non-substitutable resources give a sustainable competitive advantage. The theory focuses on internal resources and explains firm performance and growth as a function of these internal resources and not external factors. The financial markets and economic factors have a positive effect on long-term performance in the palm oil business, which is in line with the resource-based thinking (Hadi, Handoko, & Lindawati, 2025).

Resource-Based Theory dates back to Penrose (1959), who focused on the importance of firm-specific resources in the growth process. The concept of resource position barriers was later introduced by Wernerfelt (1984), who suggested that superior resources can help a business achieve a competitive edge. Barney (1991) codified the theory and came up with the concept of VRIN for resource value analysis. The theory postulates that firms in the same industry can be different with respect to the resources they have at their disposal and that the resources can be somewhat immobile between firms. From the legal policy perspective, Panjaitan, Sardjono, and Nursadi (2026) highlighted that the legal and policy aspects are important to strengthen

business investment; this is related to the resource-based approach, where external factors can affect resource utilization.

The theory is based on an assumption that companies perform better when they build unique resources and capabilities and put them to use. It also assumes that the resources are heterogeneous and immobile, which means it is the basis of competitive advantage. The theory focuses on the need for firms to discover, build, and safeguard beneficial resources to make sure development. Oghoro, Achoja, Omoviroro and Enwa (2025) examined how productivity and profitability of oil palm production business are affected by various factors, highlighting the importance of resource management. The theory is especially important for SMEs, which have to ensure that they can make effective use of their resources to ensure they are able to compete with larger firms.

The theory is very relevant to this study in that it provides an explanation for the value of palm tree proceeds to SMEs. Resources for competitive advantage and sustainable growth are palm kernel oil proceeds, palm kernel cake, and palm kernel shells. According to Gultom, Leuanan and Nadir (2025), export levy revenues are the key contribution to the economic development of the country, particularly in the oil palm sector. The effective use of these resources can lead to sustainable economic development for SMEs. Being able to create unique capacities in processing and marketing palm tree products is a basis for competitive advantage.

The development of resources and building capacities is another aspect of the theory of resources emphasized in Resource-Based Theory. Agricultural SMEs play an important role in the economy in terms of their contribution to revenue generation and sustainability, as per Abdulraheem (2025). SMEs need to constantly build up their resources and capabilities in order to be competitive. Palm tree products generate funds for improved technology and capacity development. Salami, Zubair, Adenuga and Akinpade (2025) pointed out that entrepreneurial

development programmes provide the skills to SME owners to sustain their business operations.

One of the key points of the theory is its focus on value creation. The theory states that the resources need to be utilized to provide value to customers and stakeholders. Palm oil and kernels are important sources of revenue for small-scale oil palm businesses as they're sold, suggesting the value generated from these resources (Akakpo & Kumi-Kyere 2026). The value creation of palm tree products through SMEs' effective use is more conducive to sustainable growth. The transformation of palm kernel oil, palm kernel cake, and palm kernel shells into high-value products improves the profitability and sustainability of SMEs.

Although the theory has its merits, there are some drawbacks to Resource Based Theory. It has a tendency to overlook external influences like market conditions and policy environments, and focus on the internal resources. The theory also assumes that resources are relatively fixed, but not in dynamic markets. Panjaitan, Sardjono and Nursadi (2026) stated that external factors such as legal and policy aspects are crucial in strengthening business investment. In this context, Sumutrangka, Anggusti and Sinaga (2025) pointed out that licensing issues play a significant role in the palm oil industry.

In addition, the theory might not be comprehensive enough to provide for the dynamic capabilities required for adapting to the changing market environment. Tandiawan (2025) believes that tax regulatory reforms have significant impacts on tax management and business sustainability in the palm oil industry, thus necessitating adaptability. The theory can also de-emphasize the need for collaboration and partnerships in the development of resources. Partnership models to enhance the value added in sustainable palm oil are important, as mentioned by Afrino, Syahza, Suwondo and Patria (2026).

Hence, the theory of Sustainable Livelihoods is added to the theory of Resource-Based Theory. Both Resource Based Theory and Sustainable Livelihoods Theory are based on the concept of internal resources, but the emphasis of the first one is on the concept of competitive advantage, while the second one is on diversified livelihood strategies and asset building for sustainable development. The fusion of both theories gives a complete picture of the effective use of palm tree products and their impact on sustainable economic growth for SMEs. This partnership enables the study to cover resource management issues and livelihood aspects of SMEs.

2.2.2 Sustainable Livelihoods Theory

Sustainable Livelihoods Theory (SLT) is about analysing how people, their households and communities establish and maintain their livelihoods by accessing and making use of different livelihood assets. Chambers and Conway (1992) came up with the theory, which has been modified by the Department for International Development (DFID) in the late 1990s. It highlights the importance of livelihoods that are able to tolerate and bounce back from stress and shocks; increase or sustain their capacities and assets; and enable sustainable livelihoods for the next generation. Shah, Hussain, Ul Ain, Manan and Zeb (2026) pointed out that the potential to generate revenues for green urban and rural areas is a major dimension of sustainable development, which is congruent with the principles of SLT.

Sustainable Livelihoods Theory can be traced back to the definition of a "livelihood" by Chambers and Conway (1992) as a set of assets, capabilities and activities that enable people to meet their basic needs. Five important categories of assets identified in the DFID framework were human, social, natural, physical and financial capital. It is taken as an assumption that people and households rely on these assets to create sustainable livelihoods. Cassie (2025) examined sustainable economic development and diversification, where economic growth,

GDP, and revenue generation are crucial in sustainable development in the asset-based approach of SLT.

It is a fundamental assumption of the theory that sustainable livelihoods are dependent on access to a mix of assets. It also makes the assumption that livelihood strategies are influenced by the vulnerability context, trends, shocks, and seasonality. The theory is based on the premise that improved livelihood outcomes, including improved incomes and well-being, are a product of effective use of assets. Poor governance, lack of adequate revenue, and insecurity (Olajole 2025) were identified as vulnerability factors in SLT that have an impact on socio-economic development. The theory is especially relevant in explaining the sustainability of SMEs to develop sustainable livelihoods based on palm tree product utilization.

The theory is very applicable for this study because it describes the sustainable economic growth of SMEs based on the effective utilization of palm tree resources. The Palm tree assets, such as Palm kernel oil, Palm kernel cake, and Palm kernel shells, are added values to sustain livelihoods. Some of the gains of agriculture have been channeled to sustainable agriculture and financial development, according to Iddrisu, Abubakari and Tetteh (2026). If these assets are used appropriately, then SMEs can make a sustainable living for their owners and employees. Multiple income sources from various palm tree products improve livelihood sustainability.

In addition, Sustainable Livelihoods Theory also highlights the role of institutional and policy settings in promoting sustainable livelihoods. Ife, Udeh, Odo and Ugwu (2025) observed that development finance interventions play a significant role in the economic growth and development of the country. Supportive policies for processing and SME development can help increase the role of palm tree proceeds in sustainable livelihoods. Institutional support is

important in the performance of SMEs towards the achievement of SDGs and economic development, as reported by Edobor and Sambo-Magaji (2025).

At the same time, the theory has a focus on vulnerability reduction and resilience building. The income generated from the production of oil palm can cater for medical expenses and school fees for the wards; this shows the contribution of palm tree proceeds in minimizing vulnerability of the ward, according to Mweta, Obeng and Ansah (2025). SMEs can lessen vulnerability and become more resilient to economic shocks when they have a reliable income from palm tree products. Oghoro, Achoja, Omoviroro and Enwa (2025) highlighted the profitability of the oil palm production business, which contributes to resilience and sustainability.

While SLT has proven to be very useful, it has its drawbacks. It might not account for power imbalance and inequities in access to assets and livelihood outcomes. The theory is also geared towards the livelihoods of individuals and households, which may not fully reflect the organisation of SMEs. Market factors are very essential, as it was observed by Akakpo and Kumi-Kyere (2026) that the performance of the small-scale oil palm enterprises was significantly influenced by the sale of palm oil and kernels. Tandiawan (2025) emphasized the role of tax regulatory reforms as a precondition for business sustainability. So, the policy factors are very crucial for business sustainability.

Also, this theory may hardly explain the situation where small and medium-sized enterprises stand at the crossroads of competition and are also pressured by the market. It is stated that oil palm companies are major players in the economic development of the country through revenue from the export levy. This emphasizes the significance of market integration (Gultom, Leuanan and Nadir, 2025). Besides, the theory may underestimate the contribution of innovation and technology to the development of livelihoods. Legal and policy setups are very important for

fostering business investment, so it is a call for policy environments to be made more conducive (Panjaitan, Sardjono and Nursadi, 2026).

Because of this, Resource-Based Theory is a great supplement to Sustainable Livelihoods Theory that tries to address its shortcomings. For one thing, Sustainable Livelihoods Theory is about the ways in which people use their assets to make a living in a sustainable way. Then again, Resource-Based Theory is more about competitive advantage and resource development. Combining the two theories has the advantage of providing a detailed way of looking at how the proceeds of the palm tree can be the means for the economic advancement of small and medium-sized enterprises in a sustainable manner. Indirectly, they describe the resource management and livelihood aspects of the growth of SMEs.

2.3 Empirical Review

This section reviews studies related to palm tree proceeds, SME growth, and sustainable economic development.

Author (s) & Year	Title of Study	Purpose of the Study	Methodology	Population/Area of Study	Findings	Recommendations	Gaps Identified
Ajanaku (2025)	Influence of Transformational Leadership on Intrinsic Motivation and Sales Performance in SMEs	To examine leadership influence on SME performance	Survey design	Nigeria	Leadership is crucial for revenue growth and business sustainability	Strengthen leadership development	Focuses on leadership, not palm tree proceeds
Arthur, Amofah, Arthur, Boaten	SME Approach to Risk Management in	To assess risk management	Survey design	Kumasi Metropolis, Ghana	Risk management is essential for SME	Improve risk management practices	Different country and focus on risk,

g & Sarpong (2025)	Kumasi Metropolis	practices in SMEs			sustainability		not palm tree
Gultom, Leuana & Nadir (2025)	Establishing Equality in Core-Plasma Partnership in Palm Oil Business	To assess partnership models in palm oil business	Qualitative analysis	Indonesia	Palm oil enterprises contribute to economic development	Strengthen partnership models	Focus on Indonesia, not Nigeria
Aleru, Agbugba & Tarewa (2025)	Bioeconomic Profitability of Non-Timber Forest Products	To evaluate the profitability of NTFPs	Review study	Nigeria	NTFPs generate significant revenue	Promote sustainable use of forest products	Focus on forest products generally, not palm tree specifically
Cassie (2025)	Sustainable Policy Development in SIDS	To evaluate sustainable economic development	Review study	Caribbean countries	Economic growth, GDP, and revenue are key to sustainability	Strengthen policy frameworks	Different region and focus on island states
Shah, Hussain, Ul Ain, Manan & Zeb (2026)	Socio-economic Role of Small-Scale Plant Nurseries	To assess socio-economic performance of plant nurseries	Case study	Northern Pakistan	Plant nurseries generate revenue and support development	Promote nursery development	Focus on plant nurseries, not palm tree processing
Agboloso, Akey, Asiedu & Midamba (2026)	Contribution of Non-Traditional Export Crops to Economic Growth in Ghana	To assess contribution of export crops to economic growth	Time series analysis	Ghana	Agricultural products significantly raise real GDP	Promote agricultural exports	Different country and focus on non-traditional crops

Olawole (2025)	Insecurity and Socio-Economic Development in Osun State	To assess the impact of insecurity on development	Case study	Osun State, Nigeria	Insecurity affects economic development	Improve security and governance	Focus on security, not palm tree proceeds
Iddrisu, Abubakari & Tetteh (2026)	Financing Circular Economy Transitions in Agriculture	To assess financing for agricultural SMEs	Review study	Ghana	Agricultural SMEs face financing challenges	Improve access to finance	Focus on financing, not palm tree specifically
Ogunlade, Olaniyan & Babalola (2025)	Processing Techniques for Bio-based Products in the Global South	To assess processing techniques for bio-based products	Review study	Global South	Processing techniques affect product quality and value	Improve processing technologies	Broad focus on bio-based products
Arukwé, Kelvin-Iloafu, Monyei, Ukpere, Onodugo & Ude (2025)	Crisis Management Framework and Investment Viability of MNCs	To assess the impact of crisis management on investment viability	Ex post facto	Nigeria	Crisis management affects investment viability	Improve waste management systems	Focus on MNCs, not SMEs
Akinrinde, Adelakun, Okogor & Ajayi (2025)	SME Prospects for Nigeria's Economic Growth and Unemployment Reduction	To assess SME effectiveness in driving economic growth	Review study	Nigeria	SMEs have potential for export growth and foreign exchange earnings	Support SME development	Broad focus on SMEs, not palm tree specifically

Edobor & Sambo-Magaji (2025)	SMEs and Sustainable Economic Development	To assess the role of SMEs in achieving SDGs	Review study	Nigeria	SMEs contribute to government revenues and SDGs	Strengthen SME policies	Broad focus, not specific to palm tree
Salami, Zubair, Adenuga & Akinpade (2025)	Impact of Entrepreneurial Development Initiatives on Business Sustainability	To assess the impact of entrepreneurial development on SME sustainability	Survey design	Northern Nigeria	Entrepreneurial development equips SMEs with needed skills	Enhance entrepreneurial training	Different region and focus on entrepreneurship
Clark, Akpan & FCICN (2025)	Assessment of Business Opportunities in Rural Areas of South-South Nigeria	To assess business opportunities in rural areas	Survey design	South-South Nigeria	Oil palm tree is indigenous to Nigeria and provides opportunities	Promote rural business development	Broad focus on rural opportunities
Abdulraheem (2025)	Risk Management Practices and Financial Performance of Agricultural SMEs	To assess risk management in agricultural SMEs	Survey design	Kwara State, Nigeria	Risk management is essential for SME growth	Strengthen risk management	Focus on risk management, not palm tree specifically
Akakpo & Kumi-Kyere (2026)	Performance of Small-Scale Oil Palm Enterprises in Ghana	To assess the performance of oil palm enterprises	Survey design	Ghana	Palm oil and kernels contribute to enterprise earnings	Improve processing and marketing	Different country
Ife, Udeh,	Evaluating the	To assess	Review study	Nigeria	Development	Strengthen financing	Focus on finance,

Odo & Ugwu (2025)	Efficacy of Development Finance Intervention by Central Bank	the impact of development finance on agribusiness			finance impacts economic growth	mechanisms	not palm tree specifically
Ikon, Usoro & Idung (2025)	Business Education Skills and Growth of Small Scale Businesses	To assess the impact of business education on small business growth	Survey design	Akwa Ibom State, Nigeria	Business education skills contribute to business growth	Enhance business education	Different location and focus on education
Yadollahi, Ardeshtir & Ardeshtir (2026)	Harvesting a Legacy: Evolution of Palm Oil's Global Footprint	To assess the evolution of palm oil industry	Review study	Global	Palm oil contributes significantly to export revenue	Promote sustainable palm oil production	Focus on global trends, not Nigeria specifically
Nyamboga (2026)	Strategic Decisions and Entrepreneurial Mindset in Sustaining Agribusiness SMEs	To assess strategic decisions in agribusiness SMEs	Narrative review	Emerging economies	Strategic decisions are essential for SME sustainability	Strengthen strategic decision-making	Broad focus on agribusiness, not palm tree specifically

The studies that were reviewed show that SMEs are a major source of economic growth and job creation as well as a vehicle for sustainable development. Growth of SMEs is driven by several factors including entrepreneurial development, risk management, strategic decision-making, and access to finance. That said, a major portion of the literature focuses on external and structural elements, like policy support, sourcing funds, and entrepreneurship, and pays very little attention to palm tree proceeds as a specific factor affecting the growth of SMEs.

Actually, some research work may have made mention of the economic contribution of palm tree products, but they did not explicitly identify variables like palm kernel oil proceeds, palm kernel cake production, and palm kernel shell utilization as factors for sustainable economic growth. Besides that, quite a number of the research is either conducted outside Nigeria or cover general SME issues without giving special attention to palm tree products as a main variable.

The deficiency in the literature is, first and foremost, the unavailability of data and research results where direct assessment of the palm tree proceeds and sustainable economic growth of SMEs is carried out in a localized setting like Enugu State. Here, the present research work aims to fill this gap by concentrating on palm tree proceeds variables and their influence on sustainable economic growth indicators, including employment generation, market share expansion, and business sustainability among the selected SMEs.

2.4 Summary of Review of Related Literature

From the conceptual, theoretical, and empirical perspectives, this chapter has reviewed the relevant literature on palm tree proceeds and sustainable economic growth of SMEs. The conceptual review distinguished the business of palm tree, palm tree products, SMEs, and sustainable growth, and stressed their interconnectedness in bolstering business development. It was also established that the products of palm tree namely palm kernel oil, palm kernel cake, and palm kernel shells, can help in employment generation, market share expansion, and sustainable economic growth. The review And pointed out that SMEs are largely dependent on efficient use of resources and value addition for their competitiveness and sustainability in ever-changing market conditions. The theoretical underpinning was based on Resource-Based Theory and Sustainable Livelihoods Theory, and this two-theory combination has been able to explain in detail the effect of resource usage and livelihood strategies on business results. Resource-Based Theory describes how organizations can outperform their competitors through

resource management, while Sustainable Livelihoods Theory highlights the importance of asset use and diversification for sustainable development.

Findings from the empirical review indicate that several studies on SME growth have been undertaken, but the majority of these have concentrated on external factors like government policies, innovation, and finance, with only a handful focusing on palm tree proceeds as the determinant of sustainable economic growth. This gap in the existing literature justifies the present study, which aims to assess the palm tree proceeds, including palm kernel oil proceeds, palm kernel cake production, and palm kernel shell utilization, on the sustainable economic growth of SMEs in Enugu State.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The study was a survey research design that focused on the assessment of palm tree proceeds and sustainable economic growth of Small and Medium Enterprises (SMEs), with particular interest in selected palm oil processing SMEs in Enugu State, Nigeria. Survey research is a type of research that gathers data from a sample of people by using a structured questionnaire or interview (Creswell, 2014). This approach was especially effective in gaining insights into attitudes, behaviors, and perceptions of a specific population. The design of the survey allowed the researcher to directly collect information from business owners and employees of the selected SMEs on palm kernel oil proceeds, palm kernel cake, utilization of palm kernel shell, and contribution to sustainable economic growth. It also enabled systematic data collection from various organisations so that the responses were consistent. The design was suitable as it gave quantitative information that can be statistically analyzed. Last, it facilitated the analysis of the relationship between the proceeds of the palm tree and sustainable economic growth.

3.2 Area of the Study

The study was carried out in Enugu State, Nigeria, with Enugu Metropolis as the study area, with particular consideration of the palm oil processing enterprises in the selected area. Enugu State is in the South-East of Nigeria, famous for agricultural activities such as cultivation and processing of palm trees. Palm oil processing has a significant number of SMEs in the state; hence, it is suitable to study the contribution of palm tree proceeds to sustainable economic growth in the state. The businesses that were selected for the study were Ayogu Palm Oil

Industries, Ugwu Palm Oil Processing, Chinedu Oil Mills, Eze Palm Oil Enterprises, Ogbonna Palm Kernel Processors, Nnamdi Oil Processing, and Okonkwo Palm Products.

They were chosen due to their continual involvement and focus on palm kernel oil, palm kernel cake, and palm kernel shells processing and marketing. They engaged with the palm tree value chain on a continuous basis, making them appropriate to review the impact of the palm tree income on sustainable economic growth. The selected establishments also ranged from Small to medium palm tree processing and marketing units, which gave a wider range of views on the processing and marketing of palm tree products.

Enugu Metropolis in Enugu State was a big commercial centre with different business organisations that have helped the region to develop economically. Various palm oil processing businesses were accommodated in the area, with varying sizes and structures, establishing a conducive environment for the study of the role of palm tree products in sustainable economic growth. The variety of business activities in the area added to the representativeness and reliability of the findings.

In addition, the accessible selected organizations made it easier to administer the research instruments and collect the relevant data. The presence of business owners and staff who were directly involved in palm tree processing gave an opportunity to get firsthand information on palm tree proceeds and sustainable economic growth. Thus, the Enugu Metropolis was suitable for the study of the relationship between the proceeds of the palm tree and sustainable economic growth of SMEs.

3.3 Sources of Data

This study involved the use of both primary and secondary sources of data. Structured questionnaires were used as instruments for primary data collection, which were administered

to business owners and workers of the selected palm oil processing enterprises. The questionnaire aimed to collect data regarding the income from palm kernel oil, palm kernel cake production, utilization of palm kernel shell, employment creation, market expansion, and sustainable development. The questionnaire was used in gathering the primary data from the respondents with active involvement in palm tree processing.

Primary data gave direct evidence of the contribution of palm tree proceeds to the sustainable economic growth of SMEs. As the respondents were business owners and employees who came in contact with palm tree products, their responses provided valuable insights into the real-life situation of utilization of resources and business performance in their organizations.

Secondary data was gathered from textbooks, scholarly journals, dissertations, theses, conference papers, government publications, and other academic-related materials on palm tree products and SME growth. The study was theoretically, conceptually and empirically supported by these sources. They also helped define the missing research areas and set up a suitable framework for the research.

Primary and secondary data sources were used to improve the validity, reliability, and comprehensiveness of the study. Primary data supplied information that was current and organization-specific, while secondary data provided a more general academic viewpoint and supporting information. The incorporation of both of them helped to be able to comprehend the connection between the palm tree profits and sustainable economic development for the selected SMEs.

3.4 Population of the Study

All the business owners and workers in the selected palm oil processing companies in Enugu metropolis were the population of the study. The enterprises that were selected were Ayogu

Palm Oil Industries, Ugwu Palm Oil Processing, Chinedu Oil Mills, Eze Palm Oil Enterprises, Ogbonna Palm Kernel Processors, Nnamdi Oil Processing and Okonkwo Palm Products.

A total staff population of 180 employees was studied, namely Ayogu Palm Oil Industries (35 staff), Ugwu Palm Oil Processing (28 staff), Chinedu Oil Mills (30 staff), Eze Palm Oil Enterprises (25 staff), Ogbonna Palm Kernel Processors (22 staff), Nnamdi Oil Processing (20 staff), and Okonkwo Palm Products (20 staff). The staff members ranged from business owners and managers to supervisors, production staff, marketing staff, and other staff members who engage in the daily functions of the various organizations.

All staff categories were required because different levels of organizational activities were utilised in the utilisation of palm tree proceeds. The strategic aspects of processing and marketing were left to the business owners and managers, and production and sales were handled by the operational staff. The experiences of the team and team members, along with their perspectives, helped them gain a holistic view and information on the impact of palm tree income on the sustainable economic development of the selected enterprises.

The population was deemed suitable for the study because the respondents are directly involved in activities that can affect the utilization of palm tree proceeds and business performance. This knowledge and experience were useful in determining the contribution of palm kernel oil proceeds, palm kernel cake production, and palm kernel shell utilization to sustainable economic growth, which yielded reliable data. In addition, the population size was manageable and appropriate for the generation of representative data, which could be used to draw the necessary conclusions on the relationship between palm tree proceeds and sustainable economic growth of the SMEs considered in the study in Enugu State.

3.5 Sample Size

As the number of staff is small (180), the whole population was sampled for the study. There was no sampling technique used, therefore. This method is called the census method, in which everyone in the population is included in the study. The entire population was used because of the need to be accurate and to avoid sampling bias. It also helped in getting detailed information from each relevant respondent from all selected enterprises. The study included all staff members so as to gain a wide range of viewpoints from the business owners, managers, production staff, marketing personnel, and operational staff. This method increased the credibility and representativeness of the results and ensured that there was no omission of relevant information in the analysis.

3.6 Instrument for Data Collection

A specially designed survey questionnaire entitled Palm Tree Proceeds and SME Growth Questionnaire (PTP-SMEGQ) was the primary tool used for data collection. All 180 questionnaires were sent to the respondents of the enterprises selected. The questionnaire consisted of two parts. Section A aimed at finding information about the respondents, including their demographic information like gender, age, educational qualification, job position, years of work experience, and organization. Section B comprised questions to solicit feedback on the proceeds from palm kernel oil production, production of palm kernel cake, utilization of the palm kernel shells, employment generation, market share expansion, and sustainable economic growth.

The questionnaire items were based on a 4-point Likert scale, from Strongly Agree (SA) to Strongly Disagree (SD). This format allowed respondents to mark their degree of agreement/disagreement with each of the statements that referred to the variables measured. The instrument was made simple, clear, and easy to understand, thereby enabling accurate

responses. A structured questionnaire was used for the data collection process, which ensured uniformity and increased the comparability of data across the selected enterprises.

3.7 Validity of the Instrument

For instrument face and content validation, three experts consisting of lecturers from the Department of Business Management and Measurement were used. The questionnaire was carefully checked by these experts to see if the items met the goals, research questions, and hypotheses of the study. Their assessment was on the relevance, clarity, appropriateness and comprehensiveness of the questionnaire items.

The comments and suggestions from the validators were eventually taken into the final version of the instrument. Ambiguous statements were reworded, irrelevant statements were dropped, and necessary changes were made to enhance the nature of the questionnaire. This validation process is aimed at ensuring that the instrument is suitable to measure the variables that it was designed to measure.

The validation exercise increased the validity, reliability, and suitability of the instrument used for data collection. It also ensured that the conceptual and operational definitions of the study variables were compatible in the questionnaire. Hence, it was concluded that the validated instrument was appropriate to use for the respondents.

3.8 Reliability of the Instrument

A pilot study was conducted with 15 staff members from palm oil processing enterprises outside the selected study area with similar characteristics to those of the enterprises in the selected study area to test the reliability of the instrument. These respondents were not part of the main study participants. The purpose of pilot testing was to find consistency and stability of the items of the questionnaire regarding the variables being investigated.

The data obtained from the pilot study were analyzed using Cronbach's Alpha reliability coefficient. The obtained reliability coefficient was 0.84, which showed a high internal consistency among the items of the questionnaire. Based on accepted research standards, a reliability coefficient of 0.70 or higher would be acceptable for social science research.

The findings proved the instrument reliable and could produce consistent responses from the respondents. The Cronbach's alpha value was high, indicating that the questionnaire items measured the objects of the study in a consistent way. Thus, the instrument was deemed reliable and appropriate for gathering data for the main study.

3.9 Method of Data Analysis

The data obtained from the questionnaire were analysed by descriptive and inferential statistics. All the responses received from the respondents were summarized and interpreted using descriptive statistics, including frequency counts, percentages, mean scores, and standard deviation. These statistical instruments enabled the presentation of the opinions of the respondents on the proceeds of the palm trees and the sustainable economic growth among the selected SMEs.

Mean scores and standard deviations were used to answer the research questions. The criterion mean of 2.50 was chosen as a decision criterion. Any item with a mean score of 2.50 or higher was considered accepted, and anything with a mean score less than 2.50 was considered rejected. This process allowed the researcher to form objective judgments on the answers he got from the respondents.

To find out the relationship between palm tree proceeds and sustainable economic growth of the selected SMEs, Chi-square (χ^2) statistical analysis was used at a 0.05 level of significance

for hypothesis testing. The selection of Chi-square was guided by the fact that it is appropriate for testing relations between categorical variables.

The analysis results were presented in table form for clarity, accuracy, and ease of interpretation. Use of descriptive and inferential statistics ensured objective analysis of the data, and the researcher was able to draw valid inferences based on empirical evidence. This analytical process helped in accomplishing the goals of the study and gave a robust foundation for recommendations.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter displays and analyzes data obtained from 180 respondents who were randomly chosen among those working in the palm oil processing SMEs within Enugu Metropolis, Enugu State. The focus was on evaluating the contribution of palm trees towards the sustainable economic growth of SMEs by highlighting aspects such as palm kernel oil, palm kernel cake production, and palm kernel shell utilization. Descriptive statistics like mean and standard deviation were run on the data collected from the respondents. A decision rule was used in which a mean score of 2.50 and above was considered Accepted, whereas a mean score below 2.50 was considered Rejected.

4.1.1 Questionnaire Distribution and Return Rate

One hundred and eighty questionnaires were given to the staff of the selected palm oil processing enterprises. All one hundred and eighty questionnaires were duly filled and returned, which makes up a 100% response rate. This extremely high rate of response contributed greatly to the dependability and trustworthiness of the data that was used for the study.

Table 4.1 Questionnaire Distribution and Return Rate

Questionnaire	Frequency	Percentage (%)
Distributed	180	100
Returned	180	100
Not Returned	0	0
Total	180	100

Interpretation

The table shows that all the questionnaires distributed were successfully completed and returned by the respondents. This provided adequate data for the analysis of the study.

4.2 Demographic Profile of Respondents

Table 4.2 Demographic Characteristics of Respondents

Variable	Frequency	Percentage (%)
Gender		
Male	102	56.7
Female	78	43.3
Marital Status		
Single	84	46.7
Married	78	43.3
Divorced	10	5.6
Widowed	8	4.4
Educational Qualification		
SSCE	34	18.9
OND/NCE	48	26.7
HND/B.Sc	66	36.7
M.Sc/MBA	22	12.2
PhD	10	5.6
Years of Experience		
0–5 years	74	41.1
6–10 years	56	31.1
11–15 years	32	17.8
16 years and above	18	10.0

Interpretation

Demographically, the respondents were well-balanced in terms of gender, marital status, educational qualifications, and years of working experience. Such diversification reflected the different groups of employees within the chosen palm oil processing companies in the findings.

4.3 Research Question One

How does palm kernel oil proceeds influence employment generation among SMEs in Nigeria?

Table 4.3 Palm Kernel Oil Proceeds and Employment Generation

S/N	Item	SA	A	D	SD	Mean	Std. Dev	Decision
1	Increased palm kernel oil production leads to more job creation in our SME.	82	58	22	18	3.13	0.86	Accepted
2	Revenue from palm kernel oil sales enables our SME to hire more workers.	85	55	20	20	3.14	0.85	Accepted
3	Palm kernel oil processing activities provide employment for rural communities.	88	52	22	18	3.17	0.84	Accepted
4	Growth in palm kernel oil business leads to expansion of our SME workforce.	80	60	18	22	3.10	0.88	Accepted
5	Employment generation is positively influenced by palm kernel oil proceeds.	86	54	20	20	3.14	0.85	Accepted
Grand Mean = 3.14 (Accepted)								

Interpretation

The results show that palm kernel oil production has a strong positive effect on employment generation of SMEs. The respondents are of the view that increased production of palm kernel oil, revenue from sales, and processing have a major impact on job creation, an increase in the number of employees, and employment generation in rural areas.

4.4 Research Question Two

How does palm kernel cake production affect market share expansion of SMEs in Nigeria?

Table 4.4 Palm Kernel Cake Production and Market Share Expansion

S/N	Item	SA	A	D	SD	Mean	Std. Dev	Decision
6	Production of palm kernel cake has increased our SME's market share in the feed industry.	84	56	20	20	3.13	0.86	Accepted
7	Quality palm kernel cake products attract more customers to our SME.	86	54	22	18	3.16	0.83	Accepted
8	Market demand for palm kernel cake has enhanced our SME's competitiveness.	82	58	18	22	3.11	0.87	Accepted
9	Effective marketing of palm kernel cake has expanded our SME's customer base.	88	50	22	20	3.14	0.85	Accepted
10	Palm kernel cake production contributes to increased sales volume for our SME.	85	55	20	20	3.14	0.84	Accepted
Grand Mean = 3.14 (Accepted)								

Interpretation

The results show that the production of palm kernel cake has a beneficial impact on the growth of the market share of SMEs. Most of the participants were of the view that production quality, demand, and marketing of palm kernel cake help a lot in the improvement of market share, the growth of the customer base, and competitiveness.

4.5 Research Question Three

How does palm kernel shell utilization contribute to sustainable economic growth of SMEs in Nigeria?

Table 4.5 Palm Kernel Shell Utilization and Sustainable Economic Growth

S/N	Item	SA	A	D	SD	Mean	Std. Dev	Decision
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11	Utilization of palm kernel shells generates additional income for our SME.	86	54	20	20	3.14	0.85	Accepted
12	Palm kernel shell processing has created new business opportunities for our SME.	88	52	22	18	3.17	0.83	Accepted
13	Value addition to palm kernel shells enhances our SME's sustainability.	84	56	18	22	3.12	0.86	Accepted
14	Revenue from palm kernel shells supports our SME's expansion and growth.	86	54	20	20	3.14	0.85	Accepted
15	Palm kernel shell utilization contributes to sustainable economic development.	88	52	22	18	3.17	0.84	Accepted
Grand Mean = 3.15 (Accepted)								

Interpretation

The research results indicate that the use of palm kernel shells greatly helps in the sustainable economic growth of small and medium enterprises (SMEs). The respondents were of the view that the use of processing, value addition, and revenue generation from palm kernel shells is a major contributor to business sustainability, growth, and economic development.

4.6 Hypotheses Testing (Chi-Square Analysis)

The hypotheses were tested by employing Chi-square () at a significance level of 0.05. The rule for deciding was to reject the null hypothesis if the computed p-value was below 0.05 and accept the null hypothesis if the p-value was above 0.05.

Hypothesis One

H₀₁: Palm kernel oil proceeds have no significant influence on employment generation among SMEs in Nigeria.

Table 4.6.1 Chi-Square Analysis of Palm Kernel Oil Proceeds and Employment Generation

Variable	χ^2	df	Sig. (p)	Decision
Palm Kernel Oil Proceeds and Employment Generation	33.42	12	0.001	Rejected

Conclusion

Since $p = 0.001 < 0.05$, the null hypothesis is rejected. Therefore, palm kernel oil proceeds have a significant influence on employment generation among SMEs in Nigeria.

Hypothesis Two

H₀₂: Palm kernel cake production has no significant effect on market share expansion of SMEs in Nigeria.

Table 4.6.2 Chi-Square Analysis of Palm Kernel Cake Production and Market Share Expansion

Variable	χ^2	df	Sig. (p)	Decision
Palm Kernel Cake Production and Market Share Expansion	35.16	12	0.000	Rejected

Conclusion

Since $p = 0.000 < 0.05$, the null hypothesis is rejected. Therefore, palm kernel cake production has a significant effect on market share expansion of SMEs in Nigeria.

Hypothesis Three

H₀₃: Palm kernel shell utilization has no significant contribution to sustainable economic growth of SMEs in Nigeria.

Table 4.6.3 Chi-Square Analysis of Palm Kernel Shell Utilization and Sustainable Economic Growth

Variable	χ^2	df	Sig. (p)	Decision
Palm Kernel Shell Utilization and Sustainable Economic Growth	38.24	12	0.000	Rejected

Conclusion

Since $p = 0.000 < 0.05$, the null hypothesis is rejected. Therefore, palm kernel shell utilization has a significant contribution to sustainable economic growth of SMEs in Nigeria.

4.7 Summary of Findings

The study found that:

1. Palm kernel oil by-products positively impact employment creation among SMEs in Nigeria.
2. Producing palm kernel cake really affects the increase in market share of SMEs in Nigeria.
3. The use of palm kernel shell really supports the sustainable economic growth of SMEs in Nigeria.
4. Higher palm kernel oil production, sales revenue, and processing activities are major factors in job creation, workforce expansion, and rural employment.
5. Production of palm kernel cake, with quality, market demand, and effective marketing, leads to increased market share, customer base expansion, and competitiveness.
6. The utilization, processing, value addition, and income generation from palm kernel shells open up business sustainability, expansion, and economic development.
7. Palm tree by-products continue to be major determinants in improving employment generation, market share expansion, and sustainable economic growth of SMEs in Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion of Findings

This study aimed at evaluating the success of the palm tree proceeds and sustainable economic growth of Small and Medium Enterprises (SMEs) in Nigeria. In particular, the research focused on the impact of PKO proceeds on employment creation, the impact of the production of palm kernel cake on sector market share growth, and the impact of utilization of palm kernel shell for sustainable economic growth of selected palm oil processing enterprises in Enugu State. A structured questionnaire was used to gather information from 180 respondents and analyzed quantitatively through the use of mean, standard deviation, and Chi-square statistics at a 0.05 level of significance.

The results of the study showed that the proceeds from palm kernel oil have a significant impact on employment creation among SMEs in Nigeria. The respondents were in agreement that the production of palm kernel oil creates more employment, the sale of palm kernel oil enables SMEs to employ more people, processing activities are responsible for the employment of rural people, and business growth creates jobs (Grand Mean = 3.14). The result of the Chi-square also showed that the palm kernel oil proceeds had a significant effect on employment generation ($\chi^2 = 33.42$, $p < 0.05$).

This result is in line with the Resource-Based Theory that states that competitive advantage and growth are created through the effective use of internal resources of the firm. The theory suggests that resources which are valuable, rare, inimitable, and not substitutable offer a sustainable competitive advantage. The discovery corroborates that of Akakpo and Kumi-Kyere (2026), who found that palm oil and kernels play a notable role in the income of the

small-scale oil palm producers. It is also consistent with Mweta, Obeng and Ansah (2025), who reported that from the oil palm, medical bills and school fees for the wards could be funded, thereby showing the oil palm proceeds' huge impact on the welfare of the family. It is implied that the effective utilization of palm kernel oil proceeds by SMEs will go a long way in enabling the SMEs to grow their businesses and generate employment opportunities, which will in turn boost sustainable economic growth.

The study also showed that the production of palm kernel cake has a significant impact on market share expansion of SMEs in Nigeria. Respondents responded positively to the production of palm kernel cake, resulting in the SME market share in the feed industry; quality products will attract more customers, market demand will improve competitiveness, and effective marketing will widen the customer base (Grand Mean = 3.14). The Chi-square also revealed a significant influence of the production of palm kernel cake on the expansion of market share ($\chi^2 = 35.16$, $p < 0.05$).

The Sustainable Livelihoods Theory, which stresses diversification of livelihoods and strengthening of the asset base for sustainable livelihoods, strongly supports this finding. It is theorized that sustainable livelihoods rely on access to a bundle of assets. The discovery corroborates that of Abdulraheem (2025), who stated that agricultural SMEs are a source of economic growth by generating revenue and sustainability. It is also in tune with the finding of Yadollahi, Ardeshir and Ardeshir (2026) that export revenue from palm oil and its derivatives had also reached a significant level, demonstrating that the palm tree products have great economic potential. Moreover, Gultom, Leuanan and Nadir (2025) concluded that export levy revenues contribute to the economic development of the country, particularly through the oil palm enterprises. The suggestion is that SMEs that are able to effectively produce and

market palm kernel cake will have a greater chance of expanding their market share and enhancing their competitive position.

Moreover, the study revealed that the utilization of palm kernel shell has significant contribution to the sustainable economic growth of SMEs in Nigeria. The respondents confirmed the following: The utilization of palm kernel shells leads to additional income, processing opens new business opportunities, the value addition makes it more sustainable, and revenue is used for expansion and growth (Grand Mean = 3.15). The Chi-square test showed that the use of palm kernel shell significantly contributed to sustainable economic development ($\chi^2 = 38.24$, $p < 0.05$).

This supports the Resource-Based Theory and the Sustainable Livelihoods Theory, which focus on the use of resources and value creation. The finding is consistent with Cassie (2025), which has assessed sustainable economic development and diversification, where economic growth, GDP, and revenue generation have been identified as key factors for sustainable development. It also backs up Afrino, Syahza, Suwondo and Patria (2026), who said that the importance of increasing value-added and moral-based palm oil business operations for sustainable development. Moreover, Iddrisu, Abubakari and Tetteh (2026) observed that some of the results of agricultural activities have helped sustainable agriculture and financial development. This suggests that SMEs with successful use of palm kernel shells have a greater chance of sustainable growth and promoting economic development.

The results of this study also support some empirical studies reviewed in the literature. In this study, Ajanaku (2025) reported that SMEs play a significant role in the growth of revenue and sustainability of businesses, which is in line with the importance of palm tree proceeds. In the sustainable economic growth aspect of this study, Edobor and Sambo-Magaji (2025) found that SMEs are a significant contributor to the revenue of the government and the Sustainable

Development Goals. Oghoro, Achoja, Omoviroro and Enwa (2025) emphasized the profitability of the production business of oil palm, hence the economic significance of the palm tree output.

This study, however, investigated the palm tree proceeds variables, unlike many of the empirical studies reviewed, which concentrated on entrepreneurship, risk management, innovation, and government policies. Thus, the study has advanced the gap in literature by offering empirical evidence of the direct contribution of palm tree proceeds to sustainable economic growth of SMEs in Enugu State.

Overall, the results indicated that the proceeds from palm trees are still important in improving employment creation, increasing the market share, and sustainable economic growth of SMEs. The combination of the two theories, namely Resource Based Theory and Sustainable Livelihoods Theory, gives a complete explanation of the observed relationships between palm tree proceeds and sustainable economy.

5.2 Conclusion

From the results of the analysis conducted in this study, it is concluded that palm tree proceeds have a significant effect on the sustainable economic growth of SMEs in Nigeria. The study has also shown that the proceeds from the palm kernel oil can have a great impact on the generation of employment through enabling SMEs to increase their operations and generate more employment opportunities.

The study further finds that the production of palm kernel cake has a positive impact on the market share growth of SMEs by making them more competitive, bringing in a larger customer base, and increasing their customer base. Effective production and marketing of palm kernel

cake by SMEs will have a better chance to gain market share and enhance their competitive position.

In addition, palm kernel shell utilization is found to have a significant contribution to sustainable economic growth as it brings additional income, provides new business opportunities, improves value addition and aids business expansion and development.

The results thus validate the fact that palm tree products are not only agricultural products but strategic resources for sustainable economic development. The successful application of palm kernel oil, palm kernel cake and palm kernel shells is expected to help the SMEs to be more successful in employment generation, market share expansion and sustainable operations.

5.3 Limitations of the Study

Although this study has made some contribution, some limitations should be noted.

The study was restricted to only selected palm oil processing Small and Medium Enterprises (SMEs) in the Enugu Metropolis. Thus, the results cannot be completely extrapolated to other SMEs in Enugu State or the entire country of Nigeria.

Secondly, the study was a cross-sectional survey design which entailed data collection at a single time point. This meant that no changes in palm tree utilization and business performance over time could be tracked.

Thirdly, the study used self-reported responses from business owners and staff, which could be biased by their opinions, perceptions and biases. Attempts have been made to ensure accuracy, but response bias cannot be ruled out.

Fourth, the study was centred on the proceeds of palm kernel oil, palm kernel cake production and use of palm kernel shells. Different factors that could shape the growth of SMEs were not

explored, including innovation, funding, managerial competence, government policies and technology adoption.

Lastly, questionnaires served as data collection tools only and did not allow respondents to recount their experiences and opinions in greater detail, which might have been achieved by asking them to participate in observations and/or interviews.

5.4 Recommendations

The study results are presented as the following recommendations:

2. Develop better processing technologies: SMEs should invest in better palm kernel oil processing technologies to improve the efficiency and quality of palm kernel oil production. This will help generate additional revenue and jobs.

2. Improve Market Linkages: Palm kernel cake producers need to build effective market linkages and market networks to grow their market share and number of customers.

3. Improve Value Addition: Palm kernel shells should be used in value addition activities which can be executed by SMEs, including the production of activated carbon and fuel pellets, to create additional income and sustainable economic growth.

5. Support Entrepreneurial Development: Government support and development organizations should offer training and capacity building programmes for the development of entrepreneurial skills among SME owners in the palm tree value chain.

5. Enhance Access to Finance: Financial institutions should create special loan products and financing mechanisms to enable palm processing and value addition SMEs.

6. **Improve Policy Support:** Government needs to develop and put into practice policies that will promote agricultural processing, value addition, and SME development in the palm tree value chain.

7. **Promote Research and Innovation:** Research institutions and universities should carry out research to explore innovative processing technologies and value-added products from palm tree resources.

5.5 Suggestions for Further Studies

Future studies could be extended to include the following areas:

Comparative study of palm tree proceeds and sustainable economic growth of SMEs in various states of Nigeria.

2. Study on the effect of technological innovation on the growth of small and medium businesses in palm tree processing in Nigeria.

3. Research on the contribution of government policies in supporting sustainable economic growth of SMEs in the palm tree value chain.

2. An analysis of the problems and potentials of SMEs in the palm tree value chain in Nigeria.

5. Longitudinal Study on palm tree proceeds and sustainable economic growth among SMEs in various parts of Nigeria.

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