



DEVELOPMENTAL CHALLENGES OF OIL DEPENDENCY: A STUDY OF ENERGY POLICY AND AGRICULTURAL SUSTAINABILITY IN NIGERIA'S OIL-PRODUCING REGIONS.

John Oghenekevwe Ifaka (Ph.D.)

Department of Public Administration, Glorious Vision University, Ogwa, Edo State, Nigeria Ifaka29@gmail.com

Professor Monday Osemeke

Department of Business Administration, College of Management and Social Sciences, Glorious Vision University, Ogwa, Edo State, Nigeria. osemeke2k2002@yahoo.com

&

Aguebor Sandra Iguehita (Mrs.)

Department of Business Administration, College Of Management and Social Sciences Glorious Vision University, Ogwa, Edo State, Nigeria. *sandylovep@yahoo.com* **DOI:** https://doi.org/10.5281/zenodo.14714815

Abstract:

The study is focused on the developmental and administrative challenges of balancing global oil pricing and agricultural sustainability of oil rentier-dependent states like Nigeria. The study examined the extent to which oil pricing impacts on food security. The qualitative methodology was adopted for the study. The Focus Group Study was utilised to collect data and content analysis was deployed to analyse the theme and trend implicated in oil pricing and food security. The Study concluded that the neoliberal reform that removed the fuel subsidy in Nigeria brought out the volatility of the international market dynamics exposing the agricultural sector and food security. The study recommended a comprehensive collaborative framework that balances the needs of oil and agricultural sectors aimed at the sustainability of the economy. In the short term, fuel subsidy removal should be reversed until the local refineries are functioning optimally, the oil-producing states should invest in research and development to advance technology that can aid the production, storage, and effective distribution of the agricultural sector products targeting food sufficiency and security.

Keywords: Food affordability, Food availability, Food sustainability, Food quality, Oil Pricing, and Market dynamics.

Introduction

Nigeria operates a federal system of government sharing power among the central, state, and local governments. The whole governmental system was dependent on revenue derived from various resource sharing according to the derivative principle. Between 1956 when oil was first exported in commercial quantity from Nigeria to 1966 when the Nigerian civil war broke out, Nigeria operated regional





federalism, granted each of the 3 regions before 1964 (Northern, Western, and Eastern) and later the Midwest region (Hill, 2012).

The mainstay of the economy was predominantly agriculture. The Northern region was preoccupied with the production of ground nuts and grains, the Eastern region produced palm oil, while the Southern region produced Cocoa and rubber. The regions had market boards that bought these products from farmers and sold them at a premium in the international market. The regions controlled the revenue from the regions with a retainment of 50% of revenue and paid 50% to federation accounts to be later shared collectively by the regions (Onuigbo *et al.*, 2016).

With the participation of the local population massively engaged in agriculture as the mainstay, unemployment in the dominant sector of the economy was nonexistent since land and labour were relatively available and in abundant supply respectively, across the regions. This accounts for the supply of food, indicating food security and the well-being of the population (Ayinde *et al.*, 2020). The political economy of resource control was dominated by enclaves of the majority ethnic groups in Nigeria. This promoted the local autonomy of the regions determining what to produce, how to produce, and for whom to produce, including what development projects the derived revenue should be allocated to. Ethical control of resources became the norm of the first republic (Osaghae, 2004).

By 1966, the robustness of the oil production in the new region of the Midwest and the Eastern region had increased and was attracting revenue as the energy source of global concern. Most scholars attribute the rising profile of the Eastern region where most of the oil was located constituting why Nigeria refused the breakaway of the Brafia republic that was on the verge of succession (Baxter, 2014).

The bloody war that claimed approximately over 3 million lives from the Eastern region on the back of sustaining the political economy of Nigeria over energy security and transition of agriculture to the oil economy, prompted the enactment of the Petroleum Act of 1969 which gave exclusive ownership and control of mineral resources found anywhere in Nigeria below 6 feet (Clark, 2023).

At the end of the civil war in 1970, the military had captured the government and enthroned a coercive regime structure of authoritarian hierarchy on the population, transit from federal structure to the predominance of military autocracy, embedded a quasi-federal system of government, dissolved the autonomous regions that were production centres and replaced it with a dependent inferior state structure that was relying on a mono-carbon economy (Ebohon, 2013).

The new Nigeria under military rule governing a petrodollar economy feasted on the earning of oil and abandoned agriculture. The newly created States got their monthly allocation from the central government which overcentralized power, took monopoly ownership and control of oil resources, and derived enormous resources from the oil boom beginning in the 1970s due to the Arab war (Falola & Heaton, 2008).

The transition to oil and abandonment of agriculture caused the accumulation of capital for the Nigerian Central government and the Oil Multinational Corporations (OMCs- Shell, Chevron, Mobil, Total, and Agip) while the population previously engaged in farming was dispossessed of the land and means of production, also prompting the beginning of food insecurity, public sector corruption, and bad governance (Harvey, 2004).

The mono-carbon economy of the military government in Nigeria adduced the suppression of production and started relying on oil prices to create importation of most essential services, including

https://gvujmass.com/index.php/





food and rising unemployment, economic crisis, conflict, and poverty (Ikelegbe, 2005).

The original position of the economy where abundant agriculture engagement of the population and the private sector production mix with the distribution of economic wealth accentuated by inclusive economic institutions occurred under regional governance. The problem with the transition is that as oil became the driver of the economy, the Nigerian State became comprehensively inclusive, corrupted, partial, partisan, hegemonical, alien, predatory, and rentier (Ikome, 2007) while oil prices were controlled by the international political economy and geopolitics determined the revenue of the country and affected the domestic market (Standing, 2016) including food prices (Matemilola & Elegbede, 2017).

Oil predominantly belongs to the exclusive list controlled by the Central government but the oilproducing States where dispossessed land and people who have been shortchanged of arable lands to farm are distressed from producing enough agricultural products for consumption. The international pricing of oil under a neoliberal regime predisposes a condition of energy determining public sector budget and food prices across the control. This study is concerned with the historical trajectory of oil pricing at the international market and its interplay on food security in Edo State which is part of the oilproducing State in Nigeria.

The objective of the study is to examine the impact of oil pricing as a function of the global economy in determining food prices in Edo State. The research question drawn from the objective of the study is to examine the extent to which oil pricing as a function of the international market determines food security in Edo State.

The context of the study is to look at the historical trajectory of the oil resources as a factor of imperialism which determines the construct of food security in Nigeria.

Literature Review

Nigeria's political and economic history is a trajectory of accounts of oil rentiers. The despondency of displacement of the primary access to land for agricultural production and other private property use has a tremendous impact on the population (Ifaka, 2017; Odeh, 2024); since the entire focus of government and its revenue source is trapped in a rentier economy (Onuigbo et al., 2016). Rentier economy is the derivative term that locates ownership to scarce viable ownership and control under a neoliberal state agenda. This includes the acquisition of natural resources that have the potency to generate recurring revenue through extraction from the public realm and accumulating the gains to privatized control (Standing, 2016).

The Nigerian government operated a fiscal regime dependent on oil revenue and promoted a subsidy regime in every sector of the economy. By the turn of the 1980s when the international market prices were fluctuating beyond the responsibilities of the Nigerian Rentier State, the country was sorted by loans and had to restructure the economy under the austerity measure cloned as the Structural Adjustment Programme (SAP) (Collier *et al.*, 2008; Odeh, 2023). By 2003, much of the funds borrowed were unaccounted for under a depressed economy and Nigeria opted for debt forgiveness with another provisor to partially remove oil subsidies and engage in a privatisation programme (Okonjo-Iweala, 2018).

The international price of oil accounts for the size of subsidy allowed to buffer other economic ventures in the private realm while the government depends on external loans to augment public expenditure.



While this public posture may be unstainable for a growing population depending on a mono-carbon economy with weak economic and political institutions, the strain on the citizens and society follows the logic that the over-dependence on oil bears weight on other sectors of the economy (Babalola, 2019). Consequently, the intended origin of the state is to provide protection and stability for the individuals making up the state. The state therefore is an instrument of embodiment for social protection. Once the individuals in the state lack social protection under a policy of exclusion which threatens their wellbeing, the state organically drives a momentum of rebellion, opposition and antagonism with one of its basic elements (the people). Subsidies are essential to protect individuals and businesses in the state to survive external shocks (including volatilities) that affect their ability to cope with the severity of neoliberal competition. The underlying concern is that state policy without protection can cascade into rising inflations, increasing and intense poverty, social distrust, rising social conflict, the decline in state cohesion, and prompting of a fragile or fallow state (Abbas *et al.*, 2023; Acemoglu & Robinson, 2012; Ifaka, 2019a, 2019b, 2022; Ifaka *et al.*, 2022; Ifaka & Afolabi, 2020)

The oil industry has over 6000 derivatives. Premium Motor Spirit (PMS) and other association products are used for transportation and diverse energy sources for manufacturing and commercial purposes. Fertilizer and pest control chemicals are also derived from crude oil. The production and relative abundance of these products have a significant impact on food security (Osabohien et al., 2018).

Food security is measured using indicators like food availability, food affordability, food quality, and food safety (The Economist Intelligence Unit, 2022). There is strong agreement among scholars that the perennial food crisis and insecurity afflicting developing countries (including Nigeria) is attributable to logistics problems. The major culprit in the logistic chain is the increasing price of transportation, fertilizer, and pest control chemicals which are bioproducts of oil (Matemilola & Elegbede, 2017).

The trajectory of oil price fluctuation constitutes a major challenge for a rentier economy that is disarticulated and non-complementary in the sectors of the economy, including agriculture which provides food. The acceleration of oil production or oil glut may account for disruption that renders shocks to the local economy and impacts logistics bothering food security challenges, especially under a fuel subsidy removal regime and devolution of the Naira (Musa *et al.*, 2024).

Decade	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
1950	2.51	2.53	2.53	2.68	2.78	2.77	2.79	3.09	3.01	2.9
1960	2.88	2.89	2.9	2.89	2.88	2.86	2.88	2.92	2.94	3.09
1970	3.18	3.39	3.39	3.89	6.87	7.67	8.19	8.57	9	12.64
1980	21.59	31.77	28.52	26.19	25.88	24.09	12.51	15.4	12.58	15.86
1990	26.72	16.54	15.99	14.25	13.19	14.62	18.46	17.23	10.87	15.56
2000	74.71	21.84	22.51	27.56	36.77	50.28	59.69	66.52	94.04	56.35
2010	74.71	95.73	94.52	95.99	87.39	44.39	38.29	48.05	61.4	55.59
2020	36.86	65.84	93.97	76.1						

Crude Oil Price (Dollars per Barrel)

Source: US Energy Information and Administration: 2024.

The above oil prices indicated the fluctuation inherent in the geopolitics, demand and supply-related matrix, and economic cycles resulting in domestic shocks on energy mix, transportation, industries, and





commercial food production that rely on the volatility of oil (US Energy Information and Administration, 2014).

Since the price of transport, logistics and other inputs (fertilizers and pest control chemicals) add up as overhead costs and inputs into the production process; this obviously will incrementally reflect in food availability, food price, food quality, and food safety and sustainability (The Economist Intelligence Unit, 2020).

Theoretical framework

The theoretical framework adopted for the explanation of oil pricing and food security is the Complex dynamics system theory that underlies the complex interaction of factors of geopolitics, Oil Producing Exploiting Countries (OPEC) dynamics in supply and demand, market speculations, technological advancement, domestic and foreign political and economic diplomacy. These dynamics are not fixed and are transitory with different policies. Oil pricing factors as a functional determinant will account for marginality in shaping the cost of transport, derivative input, and market-driven force on food security (Dunn, 2017).

Methodology

The research methodology adopted a qualitative historical approach based on the Focus Group Study (FGS). The method is a group discussion that involves between 6 to 12 participants. The sessions are moderated by the researcher in a conducive environment. The participants must be knowledgeable in the area of the discussion. The method seeks to have deep insight as an investigative tool for explaining observation and phenomenon (Wu *et al.*, 2023).

Two FGS were conducted in Benin and Ogwa, Edo State to understudy the oil market dynamics impacting food security in the area. Both FGSs were conducted with 6 participants each on different occasions in Benin and Ogwa. Benin is an urban metropolitan area in Edo State, the Benin FGS was conducted at Ugbowo Road on Friday 26th July 2024 between 10:06 AM and 10: 48 AM. Ogwa is a rural area in Edo State, the Ogwa FGS was conducted on Saturday 27th July 2024.

Both FGS participants were drawn from the academia, traders, transporters, and civil servants' resident in the respective area. Both groups had equal representation of 3 males and 3 females each. The major criteria for selecting the participants were marriage, adult, and residency in the area for a minimum of 10 years. The same sets of questions were moderated by the researcher at the FGS for their responses. A content analysis was done to identify the summation (theme and trend) from their response.

FGS Question 1: The prices of fuel (oil) have not been regular over the years; how do these fluctuations influence the affordability of food in your community?

Response: The prices of fuel differ even within the same area at the point of purchase and this has been reflected in transport fare increase. The changes in the fare are also blamed for the frequent increases in food prices. The prices of food are increasingly beyond the reach of most people in the locality. There is hunger in the land due to the lack of purchasing power of most people.

FGS Question 2: Have you observed a shortage or decreased availability of food items because of an increase in fuel prices?

Response: In the past three years, the price of fuel has been arbitrarily spiking up without control. This



has been reflected in the lower production of food because transport has a lot to do with the logistics in farming, also the marketing of the products. You need to bring the products to the market at a cost the sellers will be willing to buy the products. The high cost of transport has made many farmers and traders run into debt. Agricultural products are perishable products that you cannot keep for long, when the prices are beyond the price people can afford, it becomes a huge challenge. The quantity of food coming to the market is affected by all these factors. The purchasing power of the consumers is also not commensurate with the rate increase. Most food prices have increased more than 500% in the past one since the fuel subsidy removal.

FGS Question 3: Have you noticed any changes in the overall quality, taste, and freshness of food linked to the impact of the increasing price of oil (fuel)?

Response: The price increase is causing delays in bringing agricultural products to market. The farmers need to look for money to transport the product. The high cost of the final products causes delays in being purchased. All of these affect the freshness, quality, and taste of the food when it gets to the final consumers.

FGS Question 4: How sustainable are current food production and distribution systems in the face of volatile oil prices?

People are currently interested in farming. The premium farmers are expecting is driving people back to the farm but most of the products are for subsistence. People are going to farm at this point to be able to survive from the harvest they are expecting more than they want to make money. The high cost of oil has been more of a hindrance than an opportunity for most farmers, traders, and consumers. The whole chain of production and consumption is affected by oil prices. It is like struggling to buy fuel or pay for transport. The margin from every food transaction is not worth the effort to trade with. The current price system of oil is not sustainable for food security.

Analysis and Interpretation of the result

The dynamic factors determining the price of fuel under a neoliberal reform being adopted in Nigeria create volatility and frequent shocks that are impacting food security in Edo State. The impact has historical implications for food affordability, food availability, food quality, and food sustainability in Edo State. The concern is that people are finding it difficult to cope with the rising price of oil which is an essential component of the overhead cost that is reflected in every transaction affecting food security.

Conclusion

The study identified that the neoliberal reform (free market mechanism) adopted in Nigeria to remove fuel subsidies for a developing economy is hurting since the agricultural sector has not been able to take off to maturity to become self-sustaining. The volatility of the international market dynamics exposes the agricultural sector and food component (of the agricultural subsector) to high overhead costs which have negatively impacted food security.

List of abbreviations.





FGS - Focus Group Study. OMCs- Oil Multinational Corporations OPEC- Oil Producing Exploiting Countries PMS- Premium Motor Spirit SAP - Structural Adjustment Programme

Recommendations:

The following recommendations are offered to address the challenges of food security in Edo State and Nigeria.

- 1. Develop a comprehensive integrated policy framework that harnesses a balance between the oil and agriculture needs towards developing collaboration. This should dedicate funds towards the sustainability of the oil-producing regions.
- 2. In the short term, the fuel subsidy removal should be reversed as a measure to prevent deterioration in the pursuit of the sustainable goal which addresses the need to eliminate hunger until the local refineries start functioning. As prices of oil increase in the international market, it is going to hurt the food security programme in the country and Edo State.
- 3. The government should be aggressive in restoring Nigeria's local refineries and promote the viability of the private refineries operating in Nigeria. Since Nigeria has natural resources, local content addition can add value without following the price of the international market for local consumption. Local production of the product should have incentives that address food security as a basic need for the human condition.
- 4. Food affordability, availability, quality, and sustainability challenges are effects that can be addressed by technology. The oil-producing State (including the Edo State government) and private sector should collaborate in promoting research and extension services in creating valuable measures that can increase food production, and food storage, ease distribution networks (fix bad roads adding to the cost of transport), and incentive food security programme as a global.

References:

Abbas, H. S. M., Xu, X., & Sun, C. (2023). Dynamics of group grievances from a global cohesion perspective. *Socio-Economic Planning Sciences*, 87(June). https://doi.org/10.1016/j.seps.2023.101606

Acemoglu, D., & Robinson, J. . (2012). Why nations fail. Profile books.

- Akintoye, E. O., & Odeh, L. O. (2024). The effects of managerial style on decision making in organizations. Journal of Sustainable Development in Africa, 24(1), 27–42.
- Ayinde, I. A., Otekunrin, O. A., Akinbode, S. O., & Otekunrin, O. A. (2020). Food Security in Nigeria : Impetus for Growth and Development Food Security in Nigeria : Impetus for Growth and Development. September. https://doi.org/10.6084/M9.FIGSHARE.12949352





- Babalola, D. (2019). *The political economy of federalism in Nigeria*. Palgrave Macmillian. http://www.palgrave.com/gp/series/15730
- Baxter, P. (2014). Brafia: The Nigeria civil war. 1967-1970. Helion & Company.
- Clark, E. K. (2023). Brutally frank: An autobiography of Edwin Kiagbodo Clark. Safari Books.
- Collier, P., Soludo, C. C., & Pattillo, C. (2008). Economic policy options for a prosperous Nigeria. Economic Policy Options for a Prosperous Nigeria, 1–439. https://doi.org/10.1057/9780230583191
- Dunn, B. (2017). Class, capital and the global unfree market: Resituating theories of monopoly capitalism and unequal exchange. *Science and Society*, *81*(3), 348–374. https://doi.org/10.1521/siso.2017.81.3.348

Ebohon, S. I. (2013). State and rentier capitalism in Nigeria: The political economy of hydrocarbon nationalism and dependence reproduction. *Journal of Third World Studies*, *30*(1), 209–234. https://www.bertelsmann-

stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/MT_Globalization_Report_2018. pdf%0Ahttp://eprints.lse.ac.uk/43447/1/India_globalisation%2C society and inequalities%28lsero%29.pdf%0Ahttps://www.quora.com/What-is-the

- Falola, T., & Heaton, M. M. (2008). A history of Nigeria. In *A History of Nigeria*. Cambridge University Press. https://doi.org/10.1017/CBO9780511819711
- Harvey, D. (2004). The new imperialism: Accumulation by dispossession. In *Oxford Academy*. Oxford Academy. https://doi.org/10.109/oso//978019
- Hill, J. N. C. (2012). *Nigeria since independence: Forever fragile*. Palgrave Macmillian. https://doi.org/10.1057/9781137292049
- Ifaka, J. O. (2017). An institutionalist political economy of privatization in Nigeria: A case study of Delta State Steel Company, Aladja, Delta State, Nigeria. In *Global Journal of Political Science and Administration* (Vol. 5, Issue 4). www.eajournals.org
- Ifaka, J. O. (2019a). Altering the emergence of a fallow state in Nigeria's fourth republic: Channeling human resources for sustainable development. 4(1 & 2), 261–270. www.sau.edu.ng/colmassjournal
- Ifaka, J. O. (2019b). Public financial administration and resource allocation in Nigeria- challenges and prospects. Esut journal of management sciences volume 12, numbers 1 & 2, 2019. 12(2013), 97–105.
- Ifaka, J. O. (2022). The fallow state of Africa: Dual alternatives to anarchy in Nigeria, Ethiopia and South Africa. In B. A. Folorunso, M. A. Anyiwe, K. O. Ola, & D. C. Onyejiuwa (Eds.), *The new* normal as an option for sustainable development in Nigeria: A festschrift for Elder (Dr.) Bisi Ogunjobi (OON, FNES). (p. 2022). Department of Economics, Samuel Adegboyega University.
- Ifaka, J. O., & Afolabi, O. (2020). Lockdown in a recessed economy : Rethinking a new approach To public administration and governance in Nigeria. *International Journal of Media, Security and Development [IJMSD]*, 6(1). https://doi.org/10.5281/zenodo.10523811
- Ifaka, J. O., Unufe, J., & Adeniyi, O. I. (2022). Weaponizing poverty: Is the target to win elections or fail democracy. *Elections and Politics in Nigeria: Issues on Economy, Management, Finance, Media, Pandemic, Security and Marginalization*, 194–207.
- Ikelegbe, A. (2005). The economy of conflict in the oil rich Niger Delta region of Nigeria. *Nordic Journal of African Studies*, 14.





Ikome, F. . (2007). The nature and character of the post-colonial African state.

- Matemilola, S., & Elegbede, I. (2017). The challenges of food Security in Nigeria. *OALib*, 04(12), 1–22. https://doi.org/10.4236/oalib.1104185
- Musa, D., Kwarbai, J. D., & Olanrewaju, G. (2024). Oil price and food security in Nigeria: What do data say? *SSRN Electronic Journal*, 1–15. https://doi.org/10.2139/ssrn.4833688
- Okonjo-Iweala, N. (2018). *Fighting corruption is dangerious: The story behind the headlines*. The MIT Press.
- Onuigbo, R. A., Rowland, A., & Innocent, E. O. (2016). Challenges of Feeding Bottle Federalism in Nigeria. International Digital Organization for Scientific Research of Current Issues in Arts and Humanities., 2(1), 34–52.
- Osabohien, R., Osabuohien, E., & Urhie, E. (2018). Food security, institutional framework and technology: Examining the nexus in Nigeria using ARDL approach. *Current Nutrition & Food Science*, *14*(2), 154–163. https://doi.org/10.2174/1573401313666170525133853
- Osaghae, E. E. (2004). Political transitions and ethnic conflict in Africa. *Journal of Third World Studies*, 21(1), 221–240.
- Standing, G. (2016). *The corruption of capitalism: Why rentiers thrive and work does not pay.* Biteback Publishing Ltd.
- The Economist Intelligence Unit. (2020). *Global Food Security Index 2020: Addressing structural inequalities to build strong and sustainable food systems.*

The Economist Intelligence Unit. (2022). Global Food Global Food Security Index Security Index 2022.

US Energy Information and Administration. (2014). U.S. crude oil first purchase price (Dollars per Barrel). Eia.

 $https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F00000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F000000_3&f=A\%0Ahttp://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=F00000Ahttp://www.eia.gov/dnav/pet/h$

Wu, R. M. X., Wang, Y., Shafiabady, N., Zhang, H., Yan, W., Gou, J., Shi, Y., Liu, B., Gide, E., Kang, C., Zhang, Z., Shen, B., Li, X., Fan, J., He, X., Soar, J., Zhao, H., Sun, L., Huo, W., & Wang, Y. (2023). Using multi-focus group method as an effective tool for eliciting business system requirements: Verified by a case study. *PLoS ONE*, *18*(3 March), 1–17. https://doi.org/10.1371/journal.pone.0281603