

FUEL SCARCITY AND BUSINESS GROWTH IN NIGERIA FROM 2005 TO 2015

Nnabuife Ezinma Kate

Professor in the Department of Business Administration
Nnamdi Azikiwe University Awka
Anambra State, **NIGERIA**

Orogbu Lilian Obiageli

Lecturer in the Department of Business Administration
Nnamdi Azikiwe University Awka
Anambra State, **NIGERIA**

Onyeizugbe Chinedu Uzochukwu

Lecturer in the Department of Business Administration
Nnamdi Azikiwe University Awka
Anambra State, **NIGERIA**
edu_phd@yahoo.com

&

Onyilofor, Tagbo Uchenna

Research Student in the Department of Business Administration
Faculty of Management Sciences
Nnamdi Azikiwe University
Awka, **NIGERIA**

ABSTRACT

Patronage of goods and services have dwindled as a result of the ever increasing prices occasioned by fuel scarcity, and this has greatly affected the growth of Small and Medium Enterprises (SMEs) in Nigeria. This prompted this study on fuel scarcity and business growth in Nigeria from 2005 to 2015. Specifically, the study ascertained the extent to which fuel supply has affected profitability of SMEs in Nigeria from 2005 to 2015. The paper is anchored on the 'Demand and Supply Theory'. The study population comprised of the Small and Medium Enterprises (SMEs) registered with the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). The study adopted ex-post facto research design. Regression was used for data analysis. The study found that fuel scarcity has no significant positive relationship with the profit of SMEs in Nigeria. It therefore concludes that many factors such as hoarding, pipeline vandalism, malfunctioning or below capacity production of existing refineries, explosion in exchange rate were responsible for fuel scarcity in Nigeria. The implication was that until they are addressed; the country will continue to experience the menace. However, the study amongst others recommended that regulatory bodies like DPR, PPPRA, NNPC should be compelled to discharge their responsibilities more properly and the downstream sector should be fully deregulated as to enable market forces to determine price.

Keywords: Fuel Scarcity, Business Growth, Profitability.

INTRODUCTION

Prior to the discovery of oil in Nigeria, automobiles were used by the colonial masters, their trading partners and privileged Nigerians for their administrative or business activities. Arguably, it was obvious that availability of fuel or petrol, known as Premium Motor Spirit (PMS) never hindered the flow of activities. In 1908 preliminary or limited exploration was started by Shell Darcy Petroleum Company and it continued till 1935. That was the situation pending 1958 commercial discovery of crude oil in Oloibiri, Rivers State. By 1960, two major marketing companies Shell and BP established the Nigerian Petroleum Refinery Company (NPRC) on a 50/50 Joint venture. This pact gave birth to Nigeria's first refinery in 1965 with production capacity of 38,000 barrels per day. Ogedegbe (2009) noted that 5 marketers owned the crude oil and products processed by NPRC then. Interestingly, by 1970 when the civil war ended, the Federal Government of Nigeria compulsorily acquired 60% equity in shares which was enabled by the indigenization policy in all international oil companies operating in the country, without any change in their operations, policies and strategies.

The end of civil war era, in addition to presenting a peaceful environment for conducive and renaissance of business activities, the privilege of acquiring 60% of foreign company shares especially by Nigerian investors not affected by the civil war made for more disposable income to the populace. Those affected by the war did not have enough resources to invest as few of them went back to civil service without corresponding bridge in gap while others engaged in small businesses that thrived within a short time. Entrepreneurs, investors and civil servants accessed income and improved life style. In other words, improved earnings came with social adjustment for befitting status. By 1973, the federal government reacted to a perceived upsurge in demand of petrol by stepping up NPRC's refining capacity from 38,000 to 60,000b daily.

Within a very short time, the effect of Oloibiri discovery started setting the stage to boom and provided the motivation for Udoji salary award of 1975 that further leveraged many public and private workers to an improved or further ostentatious lifestyle. The explosion in earnings reflected in abnormal increase in number of vehicles that did not correlate with the available capacity of the existing refinery. The then federal government had to set up a committee charged to carry out feasibility studies on; (a) National demand for products, (b) Consumption pattern and (c) Number, size and type of new refineries needed to meet demand. Therefore, 1973 to 1975 became the first time queues were noticed in petrol stations due to shortage of petroleum products, especially PMS (Ogedegbe, 2009). That led to the conceptualization of the first indigenous refinery.

Interestingly, Nigeria is a frontline member of the Organization of Petroleum Exporting Countries (OPEC), with 2.7 barrels of crude oil production and 445000 barrels refining capacity per day. It is said to be the largest oil producing country in Africa and the 6th in the world (Oduntan, 2015). Quite paradoxically, it appears the only oil-producing country globally where fuel availability is a major challenge over the years (Ugwu, 2016). This is not unconnected to factors such as insensitivity to the influx of cars and increasing consumption, comatose or below performance of the existing refineries, inadequate provision for major competitors of fuel consumption (motorcycles, generators, speed boats, hoarding) etc. Most recently, explosion in exchange rate, corruption, crude-swap inconsistency, insensitivity of the regulatory bodies like

Petroleum Products Pricing Regulatory Agency (PPPRA), activities of the oil cabals, rationing of crude to refineries, truck transit behaviors, bad road networks, inability to access most loading depots, activity of oil vandals, non-functionality of inland depots etc have contributed to the problem of fuel scarcity in Nigeria.

As a result of the above interferences in the flow of fuel availability, business activities are suffering undue stagnation or even closure. Virtually all businesses depend on power for operation, and its epileptic supply in Nigeria has not helped businesses; thereby, compelling entrepreneurs to rely on the only available alternative for electric power, which are the generating machines to sustain their businesses. However, the reoccurring scarcity of petrol keeps affecting the growth of such businesses. This does not include the man-hour of entrepreneurs and various professional who are compelled to abandon their schedules in search of the product for days, and where it is found, the cost is usually higher than regulated price. This affects not only the planned business budget or income but value for time. A woman that grinds pepper at Atakumosa market in Illesa Osun state said “the grinding of pepper is now 100 naira from the usual 40 naira. I cannot get petrol to buy and when I see, the cost is so high from the normal price (Oduntan, 2015). Not only that transport fare has drastically increased, but commercial drivers and other business owners that use fuel usually complain that they are not making profit. When a business is not making the desired profit, its growth or survival is in doubt.

It is worthy of mention that 17 inland storage infrastructure built by NNPC in 1978 increased to 21 in 1984 and recently over 53 private depots scattered along Nigerian coastal lines of Lagos, Warri, Port Harcourt and Calabar areas are still in place to serve there purpose. It is against this background that the researcher sought to ascertain how fuel scarcity has affected business growth between 2005 and 2015 in Nigeria.

Most business owners interacted with in Lagos, Abuja and Awka on why increase in their commodity prices complained that the cost of transportation from the point of purchase to the place of sales has increased. Consequently, they argued that patronage has dwindled as a result of the ever increasing prices occasioned by fuel scarcity. Transporters on their part said that getting their tanks filled in the face of the scarcity is very difficult; at times their vehicles are abandoned at the filling stations for days. Due to the problem, some have to patronize black market at a very high cost and this automatically reflects in hike of transportation fares.

Different strategies have been put in place by various governments such as yearly turn-around maintenance of the refineries and importation of refined petrol to supplement local production, monitoring of the activities of the oil marketers have been adopted without any positive impact. The problem has become a recurrent decimal in the nation’s economy. The situation is becoming more complex and dramatic especially given the security challenges facing the nation. Pump prices of petrol in Nigeria are no longer determined by government fiat (where at all times, petrol is found in the filling stations), but by the level or rate of the demand and supply of petrol products. It appears that the more serious and committed the government is poised to put an end to petrol scarcity, the more slippery the problem becomes (Akpan & Nnamseh, 2014).

Additionally, it is usually a tale of losses, cries and sufferings, especially for Small and Medium Enterprises (SMEs) whenever the price of fuel is hiked either as a result of government policy, or as a result of scarcity of the commodity (Vita, 2015). This is so because fuel scarcity brings with it a downward economic chain reaction that affects the availability and price of many commodities and more often leads to increase in the amount of loan request by many businesses; just to survive or remain in the business environment. It is against the aforementioned problems that this study tries to ascertain how fuel scarcity affected business growth between 2005 and 2015 in Nigeria.

The broad objective of the study is to determine how fuel scarcity affected business growth of SMEs in Nigeria from 2005 to 2015. Specifically, the study seeks to;

- Ascertain the extent to which fuel supply affect profitability of SME's in Nigeria from 2005 to 2015.
This research question guided the study;
- To what extent does fuel supply affect profitability of SMEs in Nigeria from 2005 to 2015?

This hypothesis guided the study;

H_A : There is a significant positive relationship between fuel supply and profitability of SMEs in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Fuel Scarcity

Petrol or fuel otherwise called PMS is a byproduct of crude oil. The word was borrowed from French 'pétrole', which in turn came from Latin petroleum and was taken over directly into English in the 16th century. Carless Capel, a German wholesaler was the first to use the term 'petrol' as a trade name in the year 1892 (Energy Bulletin, 2011 in Akpan & Nnamseh, 2014). According to Longman English Dictionary, fuel is a form of energy used for the energizing of production machines. Fuel is used in a variety of activities ranging from production, mobility, cooking, electricity, supply, sources of foreign exchange, to mention but few. In essence, its scarcity affects the functionality of many businesses in various ways.

Much appears to have been written on the issues of fuel scarcity; with minimal efforts to its definition. Akpan & Nnamseh (2014) described petrol or fuel scarcity as a malady and a serious economic problem in Nigeria. In their view, this is a disease or ailment that has eaten into the fabrics of the nation's economy. Fuel Scarcity could be described as the non availability of fuel in time of need at the approved price. In other words, fuel scarcity is not limited to the absence of fuel at the required time, but also the availability of it at higher rate.

Causes of Fuel Scarcity

Efforts have been made at identifying the causes of fuel scarcity. Mai, Mayai and Tiitmamer (2016) believe that numerous factors are responsible to why fuel gets scarce and they attributed it to lack of functional infrastructures, high taxes and duties, absence of refineries and depots, growing demand for oil by electricity producing and consuming sectors, and inefficiency in energy. In South Sudan, Mai et al (2016) argued that despite being an oil producing country, lack

of downstream infrastructures to refine crude oil and stockpile sufficient fuel for local consumption has left the country with sporadic shortage of fuel supply and high prices.

On the causes of petrol scarcity in Nigeria, Akpan and Nnamseh (2014) attributed it to hoarding, excessive corruption or mismanagement, oil pipeline vandalism, insufficient or malfunctioning refineries and bottlenecks in the distribution system. This conjectured belief was substantiated by the result of the study conducted by the Departments of Petroleum Resources (DPR, 2012). It indicated that petrol scarcity or crisis in Nigeria is caused by activities of fraudulent marketers who, despite the effort of DPR, encourage and sell adulterated products. Others include;

Near bottom Performance of Existing Refineries

In fairness to planner of fuel consumption of the seventies to late eighties, the then government seems to be sensitive to population explosion, improved life style and its associated increase in cars and made provision of refineries as their production capacities are shown in Table 2.1.1 below;

Table 2.1.1: Capacities of Nigerian Refineries

<i>Refineries</i>	<i>Commissioned Year</i>	<i>Daily Capacity, Barrels Stream per day</i>	<i>Annual capacity, Barrels per Year</i>
Old Port Harcourt (OPRPC)	1965	60,000	21,900,000
Warri (WRPC)	1978	125,000	45,625,000
Kaduna (KRPC)	1979	110,000	40,150,000
New Port Harcourt (NPRPC)	1989	150,000	54,750,000
Total		445,000	162,425,000

Source: Energy Commission of Nigeria (ECN) 2013

The refineries were maintained by some foreign investors until 1990 when it was ceded to an indigenous contractor. The refineries built to refine at least 450,000 barrels of crude oil per day operated at less than 24% capacity today (Isa *et al*, 2013).

Comatose of NNPC Inland Depots and Activities of Vandalism

To ensure that fuel and other refined products get to the consumers in various parts of the country, the Federal government made about 21 storage facilities in some states of the federation; it functioned well until 1996 when the activities of pipe line vandals became unguided and impossible. Security of the pipe line was so much in question that Civil Defense Corps was assigned with that responsibility. The non use and imminent collapse of these depots is frustrating. Table 2.1.2 below presents the detail of pipeline incidences and product losses from 2005 to 2014.

Table 2.1.2: 10 Year Pipeline Product Loss between 2005 and 2014

Year/ Area	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)	Products Loss ('000mt)	Value Loss (#million)
Port Harcourt	337.17	20,591	336.23	21,885	95.62	6,333	151.15	12,289	-	-	-	-	-	-	5.39	684	2.23	244.46	7.46	958.72
Warri	145.14	9,854	16.00	1,052	-	-	22.36	1,589	-	-	45.93	2,671.41	14.37	1,434	-	-	16.86	1,785.00	14.29	2,311.75
Mosimi	146.16	9,251	183.40	13,709	141.52	10,634	12.98	681	110.38	8,195	144.50	3,796.70	127.39	9,903	163.22	18,958	268.76	31,364.06	332.85	41,279.10
Kaduna	16.57	990	-	-	5.10	273	5.13	35	-	-	3.99	380.00	16.06	1,189	13.06	1,842	39.62	5,487.81	1.08	200.39
Gombe	16.78	929	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	661.81	41,615	535.62	36,646	242.23	17,240	191.62	14,594	110.38	8,195	194.42	6,848.11	157.81	12,526	181.67	21,484	327.48	38,881.33	355.69	44,749.96

Source: NNPCASB (2014)

Inconsistency in crude allocation to local Refineries

The Table 2.1.3 below shows crude allocation to Nigerian refineries; it represents no pattern or style and an infringement on the expected volume to be refined for local consumption.

Table 2.1.3: 10 Year Crude Oil delivery to Local Refineries from 2004 to 2014

Year/ Month	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
January	2,483,016	5,983,056	4,810,351	2,685,066	2,893,632	2,125,766	716,623	4,083,799	3,492,781	6,662,517	1,243,838
February	2,012,809	5,589,582	3,039,826	2,234,536	3,291,262	3,040,897	3,060,425	3,609,478	1,906,801	4,423,773	2,917,375
March	2,821,885	5,988,374	3,172,552	2,249,380	4,431,482	4,006,060	2,352,101	3,894,555	2,931,772	2,943,253	2,309,690
April	3,888,934	6,075,123	2,994,304	1,232,864	4,377,080	3,414,846	3,134,963	4,117,505	2,402,827	3,616,341	4,808,800
May	3,083,853	4,915,000	4,158,527	1,517,062	3,268,082	1,352,087	2,605,238	3,731,062	3,325,182	2,750,459	5,285,968
June	2,961,654	5,515,575	4,163,054	64,019	5,172,816	484,078	2,236,701	1,858,737	2,108,952	3,096,111	2,467,834
July	1,927,814	6,478,713	3,667,209	1,226,648	4,481,025	651,259	3,267,638	3,477,555	3,499,512	2,705,017	924,686
August	2,106,705	5,868,095	3,890,287	1,783,707	3,229,892	586,440	3,974,407	4,546,160	1,078,699	2,700,610	164,707
September	3,481,178	6,851,321	3,563,340	1,391,712	3,334,504	1,608,500	4,264,236	4,983,723	3,363,766	1,825,844	99,416
October	3,887,653	6,212,096	2,305,349	2,051,091	1,791,004	1,498,968	3,166,771	4,007,730	3,108,667	2,864,361	1,647,473
November	2,288,860	6,285,320	2,575,825	1,549,041	2,408,345	864,654	4,209,203	3,025,405	5,136,399	2,874,876	951,196
December	7,018,603	6,423,225	2,994,304	398,063	2,640,910	-	1,712,667	4,057,683	2,571,175	1,828,843	-
Total	37,962,964	72,185,480	41,334,928	18,383,189	41,320,034	19,633,555	34,700,973	45,393,392	34,926,533	38,292,005	22,820,983

Source: NNPCASB (2014)

Hoarding, Speculation and Smuggling

Most retailers of fuel keep products meant for immediate use in anticipation of scarcity when they will hike the price for extended gains. Paschale (2015) noted that earlier in 2015, petrol products were sold for as high as N600 per litre in Lagos State. This did not exclude the smugglers of fuel to neighboring and far countries. It grew so worrisome that the Federal

government had to stop fuel allocation to stations less than 25 kilometers to the borders. Table 2.1.4 below shows fuel distribution by geopolitical zones;

Table 2.1.4: Petrol Allocation by Zones

Products	South West	South East	South South	North West	North East	North Central	FCT	Total
LPG.	-	-	-	-	-	-	-	-
PMS	5,985,582.05	1,191,951.06	3,076,045.99	2,433,049.15	1,650,900.94	1,455,407.39	1,606,540.05	17,399,476.63

Source: NNPCASB (2014)

Activities of the Oil cabals

Cabals are influential members of a group in virtually all sectors of a given society with capacity to manipulate or navigate their ways to actualize their interest. Their activities in downstream sector of the oil industry were under cover until the wanton exposure and revelation associated with subsidy scandal. In 2011, Taleveras Group was accused by the Nigeria Extractive Industries Transparency Initiative (NEITI) in its audit report that it under delivered 152,308,878lts of petrol that is valued at \$8billion (Energy Mix Report, 2015).

Insensitivity to the Influx of cars and Increasing Consumption

Nigeria seems to be one of those nations with porous borders. There is an unguided and undocumented influx of cars into the country. Ironically, the country keep producing or importing petrol at the same old capacity, without proper cognizance of the fact that cars are entering the country steadily, hence increasing demand for fuel. Table 2.1.5 shows documented number of cars in Nigeria by the Federal Road Safety Corps (FRSC) from 2007 to 2014. This does not reflect the accurate figure, but tries to give an insight into the rising increase in cars.

Table 2.1.5: Cars in Nigeria

Year	Registered	Cumulative
2007	7110983	711098
2008	600004	7796329
2009	898502	8694831
2010	892268	9587099
2011	823946	10411045
2012	488646	10899691
2013	1004489	11904180
2014	1996250	13900430
2015	2010571	15911001

Source: FRSC (2015)

Inadequate Provision for Competitors of Fuel (Generators, Motorcycles, Speed Boats etc)

A probe on PPPRA for criteria to planning for quantity of fuel consumed per time in Nigeria revealed that apart from motorcycles that were partially in the estimate, the other major

competitors of fuel like boats and generators were not in the provision. The unbudgeted but key users continue to silently compete with the available fuel meant for cars and few motor cycles.



Figure 1: Generator Queue at a Fuel Station

Source: Omojuwa (2016)

Explosion in Exchange Rate and Delay in Payment of Subsidy

The abnormal fall of the naira to dollar recently, compounded by the government's refusal to interfere in the dilemma and subsequent reluctance to increase associated product margin and regular payment of subsidy to marketers discouraged the traders from further import.

Crude-Swap Jeopardy

Crude swap is a fixed barter arrangement put in place by NNPC to bridge the gap of their inability to refine the needed local quantity (Nwachukwu & Eboh, 2016). This arrangement suffers some set back from time to time. NNPC is often reluctant to increase the Swap quota despite obvious increase in competition.

Insensitivity of the Regulatory Bodies (NNPC, PPPRA, PEF, IPMAN, DPR etc)

Most of the bodies set up to regulate the activities of the downstream sector of petroleum appear to be failing in their objectives. PPPRA was set up to ensure regular availability and monitor local and imported petroleum product prices, rather its assignment has suffered various scandals for non performance. At no time has it been able to grant approval quarterly as expected. The fastest is 3 months into the quarter. Like PPPRA, DPR is not exonerated in the tendencies, while they may not cause delay in import process, their job of regulating the activities of the fuel marketers is like in none existing. They are empowered to ensure dispensing at regular price, yet lot of unwholesome activities takes place in the depots including buying in jerry-cans to hawk by Nigerian roads. Apart from committed major marketers, only about 20% of fuel allocated to other marketers end up in their stations. It is most of the time traded in the depot to the highest bidder who eventually hands it down to consumers that pays for all the inadequacies.



Figure 2: Jerry-Cans Queue at a Fuel Station

Source: Omojuwa (2016)

Activities of Tanker Drivers and the Union

Tanker drivers are saddled with the responsibility of conveying petrol products to the station. Nothing can happen to the quality and quantity of product without their collaboration; ranging from adulteration, diversion to short delivery. The drivers have a strong Union and have perfected their acts in line with their rules that even in an obvious cheat; their Union seems to support them. Before now, when a truck is calibrated, tanker drivers either expand their tanks or reticulate pipes that can reserve about 500 to 1000lts on each delivery. They often sort the calibrating assistance with huge sum of money to their favor against the unsuspecting transporter and dealers. Each time up haulage is conducted before delivery, it looks good but upon discharge, it short delivers between 800 to 2000 lts (Steady-Growth, 2015). The dealer may be stranded in the act and simply decide to hike the fuel price through pump manipulation or outright abnormal price or both to recover the imposed loss by the driver.

Business Growth

Business Growth is the process that refers to a measurable improvement of an enterprise. Business growth can be achieved either by boosting the top line or revenue of the business with greater product sales or service income, or by increasing the bottom line or profitability of the operation or minimizing operating costs (Business Dictionary, 2016). Business growth is an increase in sales and expansion (Sykes & Crawford, 2012). They argued that product need and awareness backed by power to purchase will always increase patronage of quality goods and services. The growth stage of any business requires strategic approach to meet a number of challenges. According to Steady-Growth (2015), business growth is the continuous or significant progress of a business.

From the foregoing, business growth can be described as the progress of a business from inception to a definite period of time. It can be gradual and systematic as planned or sudden and undulated due to prevailing circumstances. In other words, when a business starts dwindling or begins to experience non patronage, it could be said not to be growing.

Furthermore, we could calculate growth in total operating income rather than revenue (Bøhren & Mogensen, 2010). The log of operational income and business profitability is often used as a proxy for firm growth. Some empirical research by Demsetz; Amato & Wilder in Bøhren &

Mogensen (2010) have employed total assets as a measure of firm growth. It appears however that revenue or income-based measures are the most commonly used empirical proxy for a firm (business) growth. It could also be measured through the progressive branches that the particular business is able to open within a specified period of its operation.

Profitability

Profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long run. So measuring current and past profitability and projecting the future one is very important. Profitability is measured with income and expenses. Income is money generated from the activities of the business. For example, if crops and livestock are produced and sold, income is generated. However, money coming into the business from activities like borrowing money does not create income. This is simply a cash transaction between the business and the lender to generate cash for operating the business or buying assets (Hofstrand, 2009).

Expenses are the cost of resources used up or consumed by the activities of the business. For example, seed corn is an expense of a farm business because it is used up in the production process. A resource such as a machine whose useful life is more than one year is used up over a period of years. Repayment of a loan is not an expense; it is merely a cash transfer between the business and the lender. Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities (Johnson, 2015). Profitability is therefore measured with an income statement. Hofstrand (2009) noted that this is essentially a listing of income and expenses during a period of time (usually a year) for the entire business. Decision Tool Income Statement is used to do a simple income statement analysis. An Income Statement is traditionally used to measure profitability of the business for the past accounting period.

Lots of reasons exist as to why profitability is computed. It could be for ascertaining of a business progress or others. Whether you are recording profitability for the past or projecting profitability for the coming period; measuring profitability is the most important measure of the success of the business. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment.

Small and Medium Enterprises (SMEs)

Not all businesses uses patrol due to its limited ability to power heavy duty machines. It is mostly used by small and medium businesses. Small and Medium Enterprises (SMEs) has been given many names, acronyms or abbreviations in different quarters. In some, it is Small, Medium and Micro Enterprises (SMMEs), while in others it is Small Scale Enterprises (SSEs). Be that as it may, they all transcends to one thing. There is no single criterion for classifying business enterprises as small or medium scale. However, evidences from literature shows that in defining small scale business, reference is usually made to some quantifiable measures such as; number of people employed by the enterprises, investment outlay, the annual turnover (sales) and the asset value of the enterprises or a combination of these measures (Olabisi, Tunde & Isreal in Onukwuli, Akam & Onwuka, 2014).

To Olagunju (2004), small and medium enterprises comprise all business venture which are set up to provide one satisfaction (utility) or the other for a defined market target and with capital and asset base as low as N5,000 and as high as N1,000,000. Martey, Annin, Attoh, Wiredu, Etwire & Al-Hassan (2013) sees SMEs as privately owned corporations, partnerships, or sole proprietorships aimed at making profit. SMEs have been recognized as an integral component of economic development and a crucial element in the effort to lift many out of poverty (Onukwuli, Akam & Onwuka, 2014), with employees' capacity of less than 500 and whose impact sustains a nation's economy. Oyelaran-Oyeyinka (2015) broadly defined SMEs as businesses with turnover of less than N100 MM per annum and/ or less than 300 employees.

In India, SMEs play a pivotal role to the economy in terms of employment and it has recorded a high growth rate in the overall industrial economy of the country. Bayineni (2004) noted that it employs over 60% persons and it is the second largest employer of India's workforce after agriculture (ResearchClue, 2013). According to Ajayi (2002), SMEs represent about 90% of Nigerian industrial sector. SMEs have also contributed significantly to economic development through employment, job creation and sustainable livelihood (Nigeria Investment Promotion Commission, 2014). In countries at same levels of development with Nigeria, SMEs contribute a much higher proportion to GDP than currently observed in Nigeria. As observed by Oyelaran-Oyeyinka (2015), SMEs contributes approximately 1% to Nigerian GDP compared to 40% in Asian countries and 50% in the US or Europe. He stressed that when compared to other emerging markets, Nigeria has historically shown lack of commitment to building strong SME. This may not be far from the problems of lack of accessible credit, high tariffs, poor electricity supply, high cost or scarcity of fuel amongst others. Martey, Annin, Attoh, Wiredu, Etwire & Al-Hassan (2013) noted inadequate fund, poor power electricity supply, and government policies etc as major factors constraining the growth of many SMEs in Nigeria. Due to inadequate power supply many of them rely on generators for electricity.

Widodo, Sahadewo, Setiastuti and Chaerriyah (2012) assert that, when policy aims to stimulate efficiency in resource allocation, the consequences are always having unequal distributive effects. To them, the bane of fuel adjustments was to pass on some of the costs to consumers and businesses that are also affected. In the whole, many large businesses are able to weather the frequent adjustments or increases in fuel prices, but the small and medium enterprises are faced with daunting challenges (Ayakwah & Mohammed, 2014).

Table 2.1.6 below shows registered Small and Medium Enterprises (SMEs) with SMEDAN in Nigeria.

Table 2.1.6: Small and Medium Enterprises in Nigeria

STATE	2013			2010			CHANGE	% CHANGE
	Small	Medium	Total	Small	Medium	Total		
ABIA	1,769	40	1,809	526	7	534	1,275	2.55
ADAMAWA				235	11	245	-245	-0.49
AKWA-IBOM	898	195	1,092	275	39	315	777	1.56
ANAMBRA	1,620	117	1,737	656	81	737	1,000	2
BAUCHI	2,039	27	2,066	497	49	545	1,520	3.05
BAYELSA	354	72	426	134	-	134	292	0.59
BENUE	1,146	22	1,167	357	16	374	794	1.59
BORNO				131	37	168	-168	-0.34
CROSS RIVER	1,126	168	1,294	318	47	365	928	1.86
DELTA	1,444	-	1,444	576	33	608	836	1.67
EBONYI	1,206	4	1,210	232	12	244	966	1.93
EDO	1,879	118	1,997	899	29	929	1,068	2.14
EKITI	903	126	1,030	280	5	285	745	1.49
ENUGU	812	99	911	402	30	432	479	0.96
GOMBE	1,043	65	1,108	225	31	255	852	1.71
IMO	1,259	135	1,394	534	40	574	819	1.64
JIGAWA	1,022	75	1,097	217	14	231	866	1.73
KADUNA	2,712	170	2,882	1,137	145	1,282	1,600	3.2
KANO	7,790	496	8,286	1,740	69	1,808	6,478	12.98
KATSINA	1,256	99	1,355	464	70	535	820	1.64
KEBBI	898	91	989	221	11	232	756	1.52
KOGI	827	17	844	328	11	340	504	1.01
KWARA	164	62	226	415	28	443	-217	-0.43
LAGOS	11,044	619	11,663	4,146	389	4,535	7,128	14.28
NASARAWA	1,098	22	1,120	387	32	418	702	1.41
NIGER	1,258	100	1,357	433	46	478	879	1.76
OGUN	1,690	104	1,794	506	40	546	1,248	2.5
ONDO	1,805	194	1,999	596	18	614	1,385	2.77
OSUN	2,247	25	2,273	100	-	100	2,172	4.35
OYO	7,468	519	7,987	1,300	94	1,394	6,593	13.21
PLATEAU	2,070	110	2,180	613	49	663	1,517	3.04
RIVERS	2,981	41	3,022	662	60	723	2,299	4.61
SOKOTO	631	210	841	562	19	581	259	0.52
TARABA	891	69	960	242	5	247	713	1.43
YOBE				150	5	156	-156	-0.31
ZAMFARA	577	16	593	341	-	341	252	0.51
FCT	2,244	446	2,690	427	80	507	2,183	4.37
Total	68,168	4,670	72,839	21,264	1,654	22,918	49,921	100

Source: SMEDAN (2013)

Fuel Supply

Supply is a fundamental economic concept that describes the total amount of a specific good or service that is available to consumers (Investopedia, 2016). In economics, supply is the amount of something that firms, consumers, laborers, providers or other economic agents are willing to provide to the market place (Wikipedia, 2016). In other words, supply could be put as the total amount of a product (good or service) available for purchase at any specified price and time.

However, fuel supply is defined as the available quantity of petrol for purchase at a certain price (Ukum, 2012). He argued that the product's availability at higher price usually leads to scarcity. On the other hand, Harrison & Kan (2001) posits that fuel supply is the provision of fuel at the approved price and commensurate quantity desired by an economy. From the foregoing, it is deduced that fuel supply is the provision of certain quantity of fuel from the refineries or depots to the final consumers at a given or approved price. In Nigeria, this function is primarily carried out by the Nigerian National Petroleum Corporation (NNPC), through the major and registered independent petroleum marketers.

The oil and gas industry is one of the largest and most complex industries in the world today that touches on peoples' everyday lives with services ranging from transportation, electricity, heating, lubricants and a host of chemical and petrochemical products (Osoro, 2015). Its supply in various places has not really met with demand and expectation of its consumers.

THEORETICAL FRAMEWORK

The theoretical thrust of this research factored from the conventional Adam Smith (1776) 'Demand and Supply' analysis. In his book the '*Wealth of Nations*', Smith generally states that the supply price was fixed but that its merit (value) would increase as its scarcity increases. It postulates that whenever the demand for any product is greater than the supply, scarcity is inevitable. It emphasizes scarcity as a function of increasing demand that is not proportional to supply. In other words, absence of demand is associated with glut of the said goods or services. When scarcity sets in, customers contest for the available goods and services. True to the theory, sellers are generally empowered to determine who gets what at their price. Petrol scarcity situation in Nigeria is very discerning. The situation is such that has plagued the nation and caused a lot of pains, anguish and dislocation to economic activities. There are hardly any individual industry, institution and organization in Nigeria today that is not severely affected. Relating to the objective of the study, it is evident that insufficient fuel supply or its availability at very high prices can affect the profitability and growth of many businesses.

Empirical Review

Notwithstanding the fact that much empirical studies appears not to have been carried out on fuel scarcity, especially in Nigeria, some scholars have made useful efforts. Akpan & Nnamseh (2014) carried out a study in Akwa Ibom State with the aim of ascertaining the efficacy of strategic management approach in the management of petrol scarcity in Nigeria. The study participants or population were 7,792 Independents Petroleum Marketers Association of Nigeria (IPMAN) and National Union of Petroleum and Natural Gas workers (NUPENG), as well as 150 consumers of petroleum in the area. The sample size was 396 respondents and the instruments of data collection were questionnaires and secondary data. The findings revealed that excessive corruption/mismanagement, oil pipeline vandalisation, insufficient/malfunctioning of refineries, diversion/smuggling, hoarding, administrative bottlenecks/legal limitations, inadequate funding, and manpower shortage and fuel subsidy were the causes of fuel scarcity in Nigeria. It also indicated that retardation of economic growth, hike in transport fare were the major associated risk of scarcity.

Mai, Mayai & Tiitmamer (2016) recently conducted a study on the causes, impacts and solutions to the sporadic fuel crisis in South Sudan. The study used data from the Nile Petroleum Corporation (NilePet), Customs Directorate, fuel stations and interviews with oil industry, Petroleum Ministry, and National Security representatives. The result revealed that hard currency shortage, high taxes and duties, absence of refineries and depots, growing demand for oil by electricity producing and consuming sectors, and inefficiency in energy use were the causes of fuel scarcity. It also found that lack of fair market restraints and corruption have led to fuel hoarding, hikes in transport cost, reduced productivity, amplified social stratification, and the soaring prices of basic commodities.

A study was carried out in 2014 by Alaba and Agbalajobi, which evaluated the performance of private refineries and depots in the distribution of petroleum products in Lagos metropolis. The sample size was 150. Questionnaire was the major instrument for data collection, which was administered on ninety (90) randomly selected five major and ten independent private depots,

while sixty (60) were distributed to the public. The results revealed that corruption, vandalization, poor performance of refineries and government policies were responsible for petrol scarcity in Nigeria.

In another study, Ndibe & Apiah (2012) carried out a research on the causes and implications of fuel scarcity in Ghana. The study methodology was ex post factor design. Data was generated through secondary sources and analyzed descriptively. The result indicated that diversion of petrol products; production inefficiency and inadequate fineries were the major causes of fuel scarcity in the country. It also revealed that scarcity of fuel leads to numerous problems like queues on the roads- which often lead to accidents; poor business performance and closure.

Afolabi (2013) carried out a study that investigated the effect of SMEs financing on economic growth of Nigeria between 1980 and 2010. The study employed Ordinary Least Square (OLS) method in estimating the multiple regression models. The study revealed that one of the problems faced by Small and Medium Enterprises (SMEs) operators is that government does not give chance or consider them when making policy in which priority is given to large organizations. This makes financing the main constraining factor to SMEs growth and hinders their potentials for enhancing economic growth in Nigeria.

Onakoya, Onakoya, Jimi-Salami, & Odedairo (2013) conducted a study that evaluated the causal nexus between energy consumption and Nigeria's economic growth for the period of 1975 to 2010. Secondary time-series data were analyzed using co-integration and ordinary least square techniques. The result shows that in the long run, total energy consumption had a similar movement with economic growth except for coal consumption. The empirical results reveal that petroleum, electricity and the aggregate energy consumption have significant and positive relationship with economic growth in Nigeria. However, gas consumption although positive, does not significantly affect economic growth.

Sanni (2014) carried out a study that investigated the implications of price changes on petroleum products distribution in Gwagwalada area of Abuja for a period of 12 years (2000-2012). Questionnaire was used to collect primary data from ten wards within Gwagwalada Area Council. The Statistical Package for Social Sciences (SPSS) was used to analyze the raw data. The results from the study show that there was a statistically significant effect of price changes of petroleum products distribution in Gwagwalada and that the price changes significantly cause fluctuation to supply and distribution of petroleum products. It also revealed that price increases of PMS significantly lead to increase in cost of distribution of other commodities like agricultural products, consumables and the development of "Black Market" and long queues at filling stations across Nigeria.

Ayakwah & Mohammed (2014) carried out a study which sought to evaluate fuel price adjustments and growth of SMEs in the New Juaben Municipality of Ghana. The study was a social survey method with a sample size of 204 and a purposive sampling was used to elicit information from respondents. The results of the study showed that increases in fuel price due to fuel price adjustment result in increases in transportation costs, raw material costs, capital costs and other costs but have a negative relationship with consumer real income. The result of the Key informant interviews conducted by the study showed that, approximately 75% of SMEs in

the New Juaben Municipality complain when price of fuel is adjusted upwards it usually brought about decline in output and subsequent slow in business and productivity. Due to these upward fuel price adjustments, many businesses lay off workers and those which cannot cope with these conditions fold up.

Further still, Abeng, Okokon & Ushie (2012) conducted a research with the aim of ascertaining the causes of fuel scarcity and its effect on residents of Calabar Municipality. The study population was 1,800 and the sample size was 120. Descriptive survey design was adopted and simple percentages were used to interpret the data. The study hypotheses were tested using Chi-Square (X^2) inferential statistics. The findings revealed that fuel hoarding, hike in fuel price and corruption was responsible for fuel scarcity. The result also showed that fuel scarcity usually cause untold stress and hardship on the residents of Calabar Metropolis, especially going to work late; missing vital appointments etc.

Similarly, Ahmed & Halima (2013) researched on fuel scarcity and the effect on the economy. The study sample comprised of 86 small scale businesses in the Bauchi Metropolis. The major instrument of data collection was secondary sources. The ex-post facto research design was used and data were analyzed descriptively. The study hypotheses were tested using regression analysis. The result of the study showed that fuel scarcity is a reoccurring menace that negatively affects virtually all sectors of the Nigerian economy. It also revealed that when there is fuel scarcity, the nation experiences sharp decline in revenue generation.

From the revealed literature, it is evident that efforts have been made by scholars towards fuel scarcity. Ayakwah and Mohammed (2014) in their study in New Juaben Municipality of Ghana attempted to look at fuel price adjustments and growth of SMEs. Not only that the study was conducted outside Nigeria, but did not decompose fuel supply with profitability of SMEs. This presents a gap in knowledge, as one cannot empirically lay claim on the effect of fuel scarcity on business growth in Nigeria, especially from 2005 to 2015. To fill this apparent gap in knowledge, thus becomes the thrust and essence of this study.

METHODS

‘Ex-post facto’ research design was adopted in the study. This is because it centres on already documented events and enables non interference in examination of independent variable’s effect on a dependent variable. Hence it is considered appropriate for the study.

The study population comprised of Small and Medium Enterprises (SMEs) registered with the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). The population distribution is as shown in table 6.

Data were generated from secondary sources like internet materials of the NNPC, DPR, CBN, BOS, and SMEDAN Reports. The needed or relevant information were extracted thematically.

DATA PRESENTATION AND ANALYSIS**Data Presentation****Table 4.1:** Volume of PMS Supplied from 2005 to 2015

YEARS	PMS'000'(lt)
2005	7224162
2006	8846929
2007	7725762
2008	7206729
2009	6876577
2010	9090470
2011	8042354
2012	8391032
2013	7822127
2014	6913444
2015	6211708

Source: NNPCASB (2014)-1st Edition

Av. consumption

Average PMS for the period considered is 7813958.6

Then, the scarcity can be computed thus:

$Scarcity = Average\ PMS - Actual\ PMS\ supplied \quad (I)$

Table 4.2: Expected and Observed Volume of PMS from 2005 to 2015

Years	PMS supplied (observed) '000 litres	Average PMS (Expected) '000 litres	Scarcity (Shortage in the system) '000 litres
2005	7224162	7813959	589796.6
2006	8846929	7813959	-1032970
2007	7725762	7813959	88196.6
2008	7206729	7813959	607229.6
2009	6876577	7813959	937381.6
2010	9090470	7813959	-1276511
2011	8042354	7813959	-228395
2012	8391032	7813959	-577073
2013	7822127	7813959	-8168.4
2014	6913444	7813959	900514.6
2015	6211708	7813959	1602251.8

Source: CBN Statistical Bulletin and Report of SMEDAN (2015)

As shown in Table 4.2, the negative value in the column for scarcity implies inadequate quantity was distributed / supplied to the system. It can be deduced that there was scarcity of fuel and there were experienced in the years 2005, 2007, 2008, 2009, 2014 and 2015 as expected supply were greater than the actual quantity supplied.

Table 4.3: Volume of Shortage of PMS in Circulation

Years	Scarcity (Shortage in the system) '000 litres
2005	589796.6
2006	0
2007	88196.6
2008	607229.6
2009	937381.6
2010	0
2011	0
2012	0
2013	0
2014	900514.6
2015	1602251.8

Source: CBN Statistical Bulletin and Report of SMEDAN (2015)

As shown in Table 4.3, zero volume implies no scarcity of PMS in the corresponding year. Among the years considered, highest volume of scarcity was experienced in the year 2015.

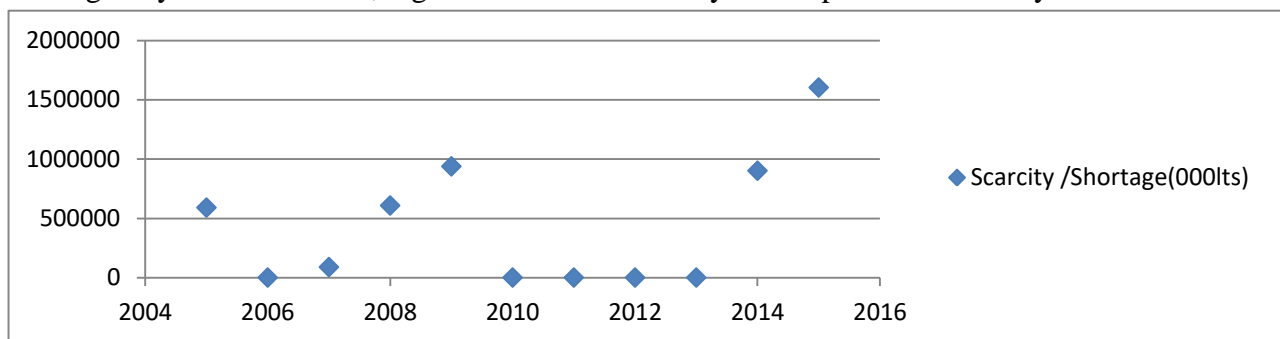


Figure 3: Scatter plot of Scarcity of PMS in Nigeria ('000 litres)

Source: CBN/SMEDAN Statistical Bulletin (2015)

Data Analysis

H_A : There is a significant positive relationship between fuel supply and profitability of SMEs in Nigeria.

To test the hypothesis, variables of interest are; Fuel supply and profitability of SMEs.

To determine the effect of fuel scarcity on business growth, data on fuel scarcity would serve as independent variable and in the model formulated, Profit is dependent variable.

Model I

$$\text{Profit} = f(\text{Fuel Scarcity}) + e_i$$

Fuel Scarcity was computed from the volume of PMS supplied over the period of 10 years. See Equation 1.

$$\text{Fuel Scarcity} = (\text{Average PMS} - \text{Actual PMS supplied})$$

Table 4.4: Scarcity of Fuel and SME's Profitability

Years	Scarcity of Fuel ('000 Litres)	Profit (#million)
2005	589797	142450
2006	0	526540
2007	88196.6	136532
2008	607230	127054
2009	937382	214345
2010	0	654530
2011	0	674432
2012	0	646543
2013	0	795432
2014	900515	204335

Source: CBN Statistical Bulletin and Report of SMEDAN (2015)

Model I

Regression Analysis: Profit versus Scarcity of fuel

The regression equation is

$$\text{Profit} = 570541 - 0.507 \text{ Scarcity of fuel}$$

Predictor	Coef	SE Coef	T	P
Constant	570541	77327	7.38	0.000
Scarcity of fuel	-0.5069	0.1574	-3.22	0.012

R-Sq = 56.5% R-Sq(adj) = 51.0%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	3.69693E+11	3.69693E+11	10.37	0.012
Residual Error	8	2.85074E+11	35634290149		
Total	9	6.54767E+11			

Interpretation

Fuel scarcity has no significant positive relationship with the profit of SMEs in Nigeria based on the available data and the model formulated showed that increase in fuel scarcity would lead to 0.507unit decrease in profit of SMEs in the country.

DISCUSSION OF FINDINGS

The study found that hoarding, pipeline vandalism, malfunctioning or below capacity production of existing refineries, explosion in exchange rate etc are factors leading to fuel scarcity. This aligns with the separate findings of Akpan and Nnamseh (2014) and Mai et al (2016). It also found that fuel scarcity has no significant positive relationship with the profit (performance) of SMEs in Nigeria. This is the study's major finding and contribution to knowledge.

Summarily, fuel scarcity was found to have no significant positive relationship with profitability of SMEs in Nigeria based on the available data. The study equally revealed that increase in fuel scarcity leads to 0.507unit decrease in profitability of SMEs in Nigeria.

From the findings of the study, we conclude that factors such as near bottom performance of existing refineries, comatose of NNPC inland depots/activities of vandals, inconsistency in crude allocation to local Refineries, hoarding, speculation/smuggling, activities of the oil cabals, insensitivity to the influx of cars and increasing consumption, explosion in exchange rate, crude-swap jeopardy, activities of tanker divers and their union etc are responsible for fuel scarcity and until they are addressed, Nigeria will continue to experience the menace.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study;

1. Regulatory bodies must show capacity, sincerity and responsibility in their roles against hoarding, diversion, smuggling, activities of the union that leads to pump adjustment and put a check the activities of the cabals.
2. The sector responsible for power supply should be activated to reduce the pressure from Small and Medium Enterprises. Also, NNPC, PPPRA and other regulatory bodies should take SMEs into consideration during planning, even in times of shortage, if SMEs must be in business and make positive contribution to GDP and employment.
3. The petroleum downstream sector should be truly and fully deregulated as to allow market forces to determine prices.

REFERENCES

- Abeng, B. I., Okokon, S. & Ushie, H. D. (2012). Fuel scarcity: Causes and effects to residents of Calabar, Nigeria. *International Journal of Business Management*, 3(2), 202-211.
- Afolabi, M. O. (2013). Growth effect of Small and Medium Enterprises (SMEs) financing in Nigeria. *Journal of African Macroeconomic Review*, 3(1), 193-205.
- Ahmed, M. I. & Halima, A. (2013). Assessing the effects of fuel scarcity on business development in Nigeria. *Journal of Economics & Development*, 2(1), 74-80.
- Ajayi, O.A. (2002). *Development of small-scale industries in Nigeria*. Paper Presented at Workshop on Grassroots Advocacy and Economic Development. September 11-13.
- Alaba, O.C. & Agbalajobi, S.A. (2014). Evaluation of private refineries and depots in distribution of petroleum products in Nigeria. *International Journal of Engineering & Technology*, 4(2), 118-126.
- Apkan, S. S. & Nnamseh, M. (2014). Managing risk of petrol scarcity in Nigeria: A test of the efficacy of strategic management approaches. *Global Journal of Human-Social Science: E-Economics*, 14(5), 25-38.
- Ayakwah, A & Mohammed, J. (2014). Fuel price adjustments and growth of SMEs in the New Juaben Municipality, Ghana. *International Journal of Small Business & Entrepreneurship Research*, 2(3), 13-23.
- Bayineni, S. (2004). *The role and performance of small-scale industries in Indian economy*. Retrieved from <https://ideas.repec.org/a/icf/icfjme/v02y2004i3p66-72.html#cite>

- Bøhren, L & Mogensen, B. (2010). *Is there a relationship between growth and profitability? Evidence from a large sample of Norwegian private firms*. BI Norwegian School of Management GRA 1900 Thesis, 1-46.
- Business Dictionary (2016). *Business Growth*. Retrieved from <http://www.businessdictionary.com/definition/business-growth.html>
- Eboh, M. (2016, 20th July). Fuel supply: FG restores IPMAN's right to petroleum products nationwide. Vanguard. <http://www.vanguardngr.com/2016/07/fuel-supply-fg-restores-ipmans-right-petroleum-products-nationwide/>
- Energy Commission of Nigeria (ECN, 2013). *The Capacities of Nigerian refineries*. ECN Bulletin, 21-23.
- Energy Mix Report (2015). Nigerian oil and gas industry. E.M Bulletin, 2-12.
- Harrison, J. & Kan, S. (2001). Fuel supply and consumption. Index Report, 12(1), 122-132.
- Hassan, K. (2013). Small and medium enterprises and its constraining implications. Journal of Business Management, 2(1), 30-41.
- Hofstrand, D. (2009). *Understanding profitability*. Ag Decision Maker. Retrieved from <https://www.extension.iastate.edu/agdm/wholefarm/html/c3-24.html>
- Investopedia. (2016). What is 'Supply'? Retrieved from <http://www.investopedia.com/terms/s/supply.asp>
- Isa, A.H., Hamisu, S., Lamin, H.S., Ya'u, M.Z. & Olayande, J.S. (2013). The perspective of Nigeria's projected demand for petroleum products. *Journal of Petroleum & Gas Engineering*, 4(7), 184-187.
- Johnson, G. (2015). Profitability: Meaning and essence. *Journal of Business Management*, 2(6), 114-116.
- Mai, N. J. H., Mayai, A. T. & Tiitmamer, N. (2016). *Sporadic fuel crisis in South Sudan: Causes, impacts, and solutions*. March 3rd Special Report of the SUDD Institute: Research for a Peaceful, Just and Prosperous South Sudan, 1-25.
- Martey, E., Annin, K., Attoh, C., Wiredu, A. N., Etwire, P. M. & Al-Hassan, R. M. (2013). Performance and constraints of small scale enterprises in the Accra metropolitan area of Ghana. *European Journal of Business & Management*, 5(4), 83-93.
- Ndibe, S. & Apiah, A. F. (2012). Causes and implications of fuel scarcity: A study of Ghana. *International Journal of Corporate Business*, II(XI), 13-17.
- Nigeria Investment Promotion Commission (2014). Overview of small and medium- scale enterprises in Nigeria. An Information Booklet, 1-33.
- NNPC Annual Statistical Bulletin (2014). 1st Edition.
- Nwachukwu, C. & Eboh, M. (2016, January 21st). Fuel import: Foreign suppliers blacklist Nigeria. Retrieved from <http://www.vanguardngr.com/2016/01/fuel-import-foreign-suppliers-blacklist-nigeria/>
- Oduntan, B. J. (2015). Social and economic implication of the current fuel scarcity in Nigeria. Retrieved from <http://www.thenigerianvoice.com/news/198963/social-and-economic-implication-of-the-current-fuel-scarcity.html>
- Ogedegbe, A. O. (2009). The Nigerian petroleum refineries: History, problems and possible solutions. A Lecture Delivered at the Induction Ceremony for new fellows of the Nigerian Academy of Engineering. Retrieved from <http://tandice-bsolutions.com/rokdownloads/Summit/RefinerySummitContributions.pdf>

- Olagunju, Y.A. (2004). *Entrepreneurship and small scale business enterprises development in Nigeria*. Ibadan: University press.
- Omojuwa, J. J. (2016). How did Africa's largest oil producer almost run out of gas? *The Nation*, May 27, 56.
- Onakoya, A. B., Onakoya, A. O., Jimi-Salami, O. A. & Odedairo, B. O. (2013). Energy consumption and Nigerian economic growth: An empirical analysis. *European Scientific Journal*, 9(4), 25-40.
- Onukwuli, A. G., Akam, U. G. & Onwuka, E. M. (2014). Challenges of small scale industries in sustainable development in Nigeria. *Journal of Business & Management*, 16(5), 19-25.
- Osoro, A. (2015). Factors affecting performance of supply chain systems in the petroleum industries in Kenya. *International Journal of Scientific & Research Publications*, 5(4), 1-9.
- Oyelaran-Oyeyinka, B. (2015). *SME: Issues, challenges and prospects*. Paper Presented at the Financial System Strategy (FSS 2020) International Conference, 1-39.
- Paschale, T. (2015). Causes, advantages, benefits of fuel scarcity in Nigeria. [Web Blog]. Retrieved from <http://newsbeatportal.com/shocker-read-the-advantages-of-fuel-scarcity-in-nigeria/>
- ResearchClue (2013). The role of commercial banks in the performance of small scale enterprises in Nigeria: A case study of First Bank Nigeria. [Web Blog]. Retrieved from <http://nairaproject.com/projects/196.html>
- Sanni, I. M. (2014). The implications of price changes on petroleum products distribution in Gwagwalada Abuja, Nigeria. *Journal of Energy Technologies & Policy*, 4(7), 1-15.
- SMEDAN Annual Report (2013). National MSME Survey Report.
- Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. (1sted.). London: W. Strahan.
- Steady Growth (2015). Business growth in Nigeria. Annual Business Report Bulletin of the Steady Growth Nigeria, Lagos. December, issue 2 (1).
- Sykes, D. & Crawford, K. (2012). Business growth and decline. Retrieved from <http://www.redpeg.com.au/business-studies/preliminary/samples/chapter-4/PREBSTGGWB-4.pdf>
- Ugwu, C. (2016). Counting costs of recurring fuel scarcity on Nigeria's businesses. Retrieved from <http://nationalmirroronline.net/new/counting-costs-of-recurring-fuel-scarcity-on-nigerias-businesses/>
- Udeme, C. (2015). Nigerians groan as petrol scarcity lingers. Retrieved from <http://www.vanguardngr.com/2015/11/nigerians-groan-as-petrol-scarcity-lingers/>
- Ukum, C. (2012, 26th March). Shortage of fuel supply in Nigeria. *The Nation*. p.41-42.
- Vita, I. (2015). Anambra fuel scarcity: Transporters exploit commuters. Retrieved from <http://www.odogwublog.com/2015/07/anambra-fuel-scarcity-transporters.html>
- Widodo, T., Sahadewo, G.A., Setiastuti, S.U. & Chaerriyah, M. (2012). 'Cambodia's electricity sector in the context of regional electricity market integration' in Wu, Y., X. Shi & F. Kimura (eds.), *Energy market Integration in East Asia: theories, electricity sector and subsidies*, ERIA Research Project Report 2011-17, Jakarta: ERIA, Pp 173-206.
- Wikipedia. (2016). Supply (economics). Retrieved from [https://en.wikipedia.org/wiki/Supply_\(economics\)](https://en.wikipedia.org/wiki/Supply_(economics)).

Appendix I
Micro-Enterprises (SMEs)

Sector	NUMBER
Agriculture	3,300,778
Mining and Quarrying	70,443
Manufacturing	4,887,395
Sewage, Waste	7,875
Management and Remediation Activities	
Construction	731,303
Wholesale and Retail	20,224,627
Transportation and storage	1,760,932
Accommodation and Food Services	2,039,517
Information and communication	335,604
Administration and support services	213,724
Education	104,420
Arts, entertainment and Recreation	390,609
Other services	2,927,351
Logistics	10,006,453
Hotel and Restaurant	3,334,220
Total	50335251

Source: SMEDAV REPORT, 2015

Appendix II

Profit of SMEs

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
B. Invisibles	2,096.2	4,159.5	8,394.0	3,426.8	2,112.7	2,364.9	1,953.2	2,096.2	4,159.5	8,394.0
(i) Education	84.3	105.6	123.4	44.9	47.0	60.6	67.9	84.3	105.6	123.4
(ii) Personal Home Remittances	14.3	35.4	26.5	20.5	38.3	11.5	17.6	14.3	35.4	26.5
(iii) Airline Remittances	260.6	259.6	471.5	233.3	218.1	280.7	316.9	260.6	259.6	471.5
(iv) Travels (PTA)	72.9	51.1	9.8	771.6	563.0	655.4	171.5	72.9	51.1	9.8
(v) Travels (BTA)	2.1	7.6	1.2	1,167.7	279.7	96.3	8.2	2.1	7.6	1.2
(vi) Estacode	6.2	4.8	9.9	18.8	7.8	6.6	7.9	6.2	4.8	9.9
(vii) Re-Insurance	4.1	7.1	5.1	2.8	6.0	6.7	10.3	4.1	7.1	5.1
(viii) Contract Services Fees	106.2	66.7	63.8	83.0	79.2	73.1	109.3	106.2	66.7	63.8
(ix) Technical Services Fees	224.2	295.6	345.6	150.8	158.2	275.4	250.9	224.2	295.6	345.6
(x) Royalty	25.5	28.0	78.5	19.4	17.8	30.0	36.4	25.5	28.0	78.5
(xi) License	42.0	57.0	95.7	10.6	16.9	19.8	28.3	42.0	57.0	95.7
(xii) Trade Mark	0.4	1.5	8.6	0.2	2.0	0.2	0.5	0.4	1.5	8.6
(xiii) Consultancy Fees	12.1	16.5	48.5	19.3	18.8	35.5	30.8	12.1	16.5	48.5
(xiv) Management Services Fees	70.3	47.4	90.2	23.5	7.2	29.4	14.3	70.3	47.4	90.2
(xv) Aircraft Lease & Maintenance Fees	28.8	77.4	50.7	91.2	45.1	68.5	39.9	28.8	77.4	50.7
(xvi) Shipping Vessels Charter & Maintenance Fees	33.8	25.6	1.4	80.4	107.2	148.9	136.5	33.8	25.6	1.4
(xvii) Investment Income - Profit & Dividend	232.1	1,161.2	1,940.7	105.7	151.0	232.6	197.7	232.1	1,161.2	1,940.7
(xix) Repatriation of Capital	404.5	651.6	2,250.3	180.9	90.3	32.0	179.6	404.5	651.6	2,250.3
(xx) Others	471.9	1,259.6	2,772.6	402.1	259.1	301.6	328.5	471.9	1,259.6	2,772.6
Total (A+ B)	14,865.1	18,678.9	27,068.2	11,351.5	10,231.0	12,105.4	12,148.5	14,865.1	18,678.9	27,068.2
SMEs Profit	142,450.0	526,540.0	136,532.0	127,054.0	214,345.0	654,530.0	674,432.0	646,543.0	7,954,332.0	204,335.0

Source: Central Bank of Nigeria