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Chapter 1

Project delays in Nigeria's oil and gas sector: Context and importance

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Introduction

Nigeria, Africa's largest economy with a gross domestic product GDP of $477.38b (Statista, 2023) is ranked as the 11th producer of crude oil in the world (Obite) and 12th amongst global producers of liquified natural gas – LNG as at 2015 (Worldometer, n.d.) with approximately 36million barrels of oil reserves (proven) and therefore regarded as a key member of the Organisation of Petroleum Exportation Countries – OPEC, joining the year 1971. The oil and gas sector is a key source of foreign exchange inflow to the country, accounting for 6% of the nation's GDP (National Bureau of Statistics, 2022).

Operationally, Nigeria averages 1.22 million barrels per day in production (Statista, 2023) and home to international and indigenous oil exploration and production companies, where the south-south region, comprising of Akwa-Ibom State, Rivers State, Edo State, Cross River State, Bayelsa State and Delta State plays host to major oil producing companies (Oviasuyi & Uwadiae, 2010). Oil giants such as ExxonMobil, Chevron, TotalEnergies, Shell and Addax are operators of the oil and gas facilities, forming partnerships with the government-owned Nigerian National Petroleum Company (NNPC) in joint venture deals (Aniche, 2015).

The Niger-Delta region, as it is also referred to, has the bulk of the countries reserves situated within subsurface oil wells and reservoirs and serves as field locations, onshore and offshore facilities for oil and gas exploration and production companies. Due to the country's oil reserve size and improved gas development opportunities, the country has attracted a number of projects averaging above $2 billion such as the Dangote Refinery and Petrochemical Project, Escravos Gas to Liquid Project, the Amukpe-Escravos Pipeline Project, the Qua Iboe Terminal Gas Flaring Elimination Project, the QIT Power Distribution Upgrade Project, the East Area Production Platform Project, and the Agbami Floating Production Storage and Offload Project, operated by Chevron Nigeria Limited (Gulf Oil and Gas, 2023).

1. Research Background

Despite the interest shown by investors as stated above, there is great concern over the timeliness of these projects across the board. According to Rui, et al., (2018), averagely 37% of oil and gas projects in Nigeria are completed after agreed dates. A 2019 report by Business Day, (2023) revealed that the Final Investment Decision (FID) on the Natural Gas Project of NLNG Limited (NLNG Train 7) failed to meet its revised deadline of December 2019, dashing the nation's bid to achieve a 35% increase in gas production.

The Dangote Refinery recorded a year delay from the revised estimated completion of Q4 2022, reducing the countries chances of becoming an exporter of refined petroleum products (Energy Information Administration, 2023). The Escravos Gas to Liquid EGTL project, whose Frond End Engineering Design was completed in 2002 was not delivered until late 2013 and this delay accounted for a 69% increase in the final completion cost of $10billion (Hydrocarbons, 2024). All these were multi-year projects with attendant economic price adjustment (EPA) implications, owing to the high inflation rate of the local currency (Nigerian Naira) and its volatility against the United States dollar (Sunjka & Jacob, 2013).

Delays in projects which are also termed "schedule overrun" are said to occur when agreed project completion dates are not met by the project contactor company. Schedule overruns have dug deep into the Nigeria oil and gas sector, with only very few projects being completed on time. There has been an upsurge in projects within the Nigerian Petroleum Sector, with TotalEnergies pledges $6billion as further investment in the Nigeria oil and gas sector (Offshore Technology, 2024). There are commitments of about $50billion expected for the achievement of these projects, representing 25% of the continent's oil and gas development with Nigeria leading the line as Africa's foremost oil producing nation (Vanguard, 2024).

Despite project management tools, techniques and measurement models, there is significant doubt in the capacity of project stakeholders to have projects delivered within agreed timelines. A study by Umutemea & Adegbite, (2023) revealed that organisational leadership and planning deficiencies have stalled projects to a point that stakeholders tend to reconsider their decision to invest in the industry. Another key factor being considered is the delayed passage of the Petroleum Industry Act. The Act which was signed into law by former president Muhammadu Buhari in 2021 having lingered for several years, raising doubts amongst key players (PwC Nigeria, 2021). This could be linked with delayed decision making by key industry players, with the tendency to slow project progress, leading to schedule overrun. One key aspect is also the lack of unified framework to track project performances within the companies (clients and contractors).

There are multiple reporting formats, duplicated efforts, leading to reduced earned value and poor schedule performance index (CPI).

Scope creeps which arise from frequent scope changes have been captured as a primary source of project delays even in the country's public sector (Moneke & Echeme, 2016). If not properly monitored and managed, these overruns have the tendency of running companies aground and gives room for corrupt practices and other forms of illegalities. These delays, leading to overrun in both schedule and cost have furnished the decision to embark on this research, with the aim of reversing this trend, thereby delivering cost-0effective and efficient projects with appropriate lean methodologies.

1.2 Research Justification

The country is set to attract 25% of Africa's oil and gas development projects within the coming years going by a publication by (Vanguard, 2024), increasing the countries earnings with projects worth more than $50billion.

If the trends of delays in projects are not reversed, there is a high chance of reoccurrence, which could lead to reduced output, delayed benefit realisation and increasing project cost. This justifies this research in order to curb the issue at hand and identify triggers early, before project begin to derail from stakeholder's expectations.

1.3 Research Question and Aim

This research seeks to address the following:

-What corelation exist between projects and Nigerian oil and gas assets efficiency?
-Identify and reexamine the leading causes of project delays in the Nigerian Oil and Gas sector.
-Examine the impact of these delays to the project efficiency
-Determine the techniques to arrest and mitigate the delays and their effects.

1.4 Dissertation Structure

Having discussed the background details concerning project delays in the Nigerian oil and energy sector in this chapter, where the issues and causes have been briefly highlighted, the follow up chapters will include the literature review, where an extensive deep-dive will be carried out on the classes of delays that are mostly encountered in the industry in

question. The methodology chapter will follow, where the technique of determining the causes and narrowing them to high-impact categories will be adopted.

The information, when analysed will be utilized in developing a bowtie model that assesses events and graphically represents safeguards from the preventive stand point on one hand, and the mitigative stand point on the other.

1.5 Chapter Summary

Oil and gas projects in Nigeria have suffered delays that have accounted for losses in processes resources, due to poor planning and questionable change management framework, despite the abundance of project resources, tools and techniques, and bodies of knowledge.

The lack of standardized framework by project stakeholders across the board has reduced project measurement and tracking efficiency across the length of the value chain, thus impacting on planning decisions at milestones and gates. If more attention is paid to project planning and schedule, it could lead to an improved project output, thus matching project deliverables with the expected outcomes.