

**AN ASSESSMENT OF STRATEGIC TECHNOLOGY ALLIANCE
AMONG SELECTED OIL SERVICING COMPANIES IN NIGERIA**

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ABSTRACT

This study identified the types and level of strategic technology alliance among oil servicing companies in Nigeria. It examined factors influencing strategic technology alliance among oil servicing companies in Nigeria. Furthermore, it assessed impact of strategic technology alliance on production performance of indigenous oil servicing companies. This was with a view of enhancing policy formulation in the oil and gas industry in Nigeria.

The study followed a quantitative research design using survey method and in-depth interview. Questionnaire were used to source for primary data while oral interviews and industry journals were used for secondary data. The study covered three states, Rivers (Port-Harcourt), Delta (Warri) and Lagos (Lagos) states. Eighty (80) oil servicing companies comprising of sixty (60) indigenous and twenty (20) foreign oil servicing companies were purposively selected. Primary and secondary data were used to elicit information from middle to top management employee of oil servicing companies on alliance engagement within the oil servicing sub-sector of the oil and gas industry. A total of 80 questionnaires were administered on 60 indigenous and 20 foreign oil servicing companies in Nigeria. Majority of the questionnaire were returned and 67 questionnaires were found useful for analysis. The data obtained was analysed using descriptive and inferential statistics.

The study showed that joint technology development (20%), joint production (18%), joint marketing (15%) and hybrid alliance (12%) were prevalent types of strategic technology alliance among oil servicing companies in Nigeria. Furthermore, the study revealed that 45.5% of strategic technology alliances formed were between indigenous and foreign oil servicing companies while 34.8% of alliance formed were wholly between indigenous oil servicing companies. Result also

showed that factors influencing alliance formation such as achieving or sustaining competitive advantage, obtaining or acquiring new technology; growth strategies and entering new markets; was significantly different ($F=5.206$, $P<0.005$) with achieving or sustaining competitive advantage (3.41) having the highest mean rank and reducing financial risk and share cost of research and development with the least mean rank (2.62). These results revealed that majority of indigenous oil servicing companies are motivated by the quest to achieve or sustain competitive advantage. The ANOVA and mean rating of production performance indicators as regards capacity utilization, volume of sales, competence, gross earnings and revenue, and profitability recorded no significant difference ($F=1.328$, $P>0.05$) before indigenous oil service companies engagement in strategic technology alliance. However, there was significant difference in the production performance indicators ($F=5.154$, $P<0.05$) after indigenous firms engagement in strategic technology alliance with capacity utilization (3.56) significantly higher than other factors. In addition, volume of sales and competence had significant relationship likewise gross earnings and revenue; and profitability. This implies that there has been a significant improvement in production performance of indigenous oil servicing companies after they got engaged in alliance.

This study concluded that strategic technology alliance has impacted positively on production performance and competitiveness of indigenous oil servicing companies in the oil and gas industry in Nigeria.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Nigeria's oil and gas industry dates back to 1956 when oil was first struck in commercial quantity at Oloibiri, present Bayelsa State, South-South geo-political zone of the country. Nigeria became a major oil producer in 1970, joining the Organization of Petroleum Exporting Countries (OPEC) in 1971 and currently; Nigeria is world's 11th largest Oil Producer, 7th largest producer among OPEC countries, and most prolific oil producer in Africa (OPEC, 2013). It has a reserve of about 35 billion barrels which the government intends to increase to 40 billion barrels in future through discovery of new oil fields. Nigeria's economic fortune is largely dependent on accrue turnover from crude oil sales in the world market. The oil and gas industry provides almost 70% of government total turnover with 90% of the foreign exchange earnings coming from oil exports (Audu *et al*, 2006).

Government regulates and monitors the Exploration and Production activities in oil and gas industry through Department of Petroleum Reseouces (DPR) and Nigeria National Petroleum Corporation (NNPC), who manages the various joint venture agreements with International Oil Companies (IOC). According to National Bureau Statistic Q1 report (2013), Nigeria now produces a total 2.26 million of barrels of crude oil per day and government is planning to raise the daily production to 4 million barrels per day by year 2015. The IOCs are key players in the industry where they account for more than 90% of Nigeria's daily crude oil output, while indigenous oil companies in partnership with foreign technical companies account for the remaining production balance.

Activities in the Nigeria's Oil and Gas industry are classified into the Upstream, Midstream and Downstream sectors. The upstream sector activities involves operations in areas of Exploration and Production (E&P) i.e. from drilling the initial appraisal wells, through seismic data processing, to drilling of wells and extraction of crude oil, condensates, natural gas or associated gas from the well. While the midstream sector focuses on processing, refining and marketing of natural gas for domestic and commercial usage. The downstream sector involves refining the products from crude oil, distribution and marketing of petroleum products until it reaches the final consumer (Ihua *et al.*, 2009). Nonetheless, E & P companies focus on core competencies while support and auxiliary services are outsourced to service companies in various areas of crude oil exploration and production (Gomez de Ortega, 1997). Figure 1 shows link between activities in the upstream, midstream and downstream sector and oilfield service.

Oil servicing companies provide myriad of support services to the oil and gas industry which include front end engineering design (FEED), engineering and procurement, platform construction, operating numerous types of offshore drilling rigs, seismic studies and analysis, environmental services and other speciality services including marine engineering and transportation. The business outlook for Oil Servicing companies is significantly affected by the level of energy industry spending by the E & P companies to replenish its oil and gas reserves. A key indicator for this type of spending is the rig count because when drilling and work over rigs are active, many of the other products and services provided by the oil servicing industry become necessary (Marc, 2012). Notable oil servicing companies operating in Nigeria are Schlumberger, Halliburton, Barker and Hughes, Petrofac, Pointicelli, Ocean and Oil, Africa Oilfield Services and Piprox.