Liquefied natural gas lng economics essay

Liquefied Natural Gas forecasts are highly-structured and capital intensive in order to protect the investment return that projects developers conventionally covered all their future LNG. The past years have witnessed a dramatic development in LNG industry which is under metaphases from an infant towards a maturing industry with the ongoing process of slackening in the world market, LNG plays an increasingly important role in meeting the rapid gas demand worldwide by offering its merits of diversification and flexibility for securing gas supply of price signals cross isolated regions. According to BP 2010 “ So far, LNG accounts for 30. 5% of world trade volume and the figure is expected to be growing”.

Over the past five years it has became acceptable industry practice for even contractually committed LNG with a specified destination to be diverted to another market with mutual agreement of both the seller and the buyer. The financial incentives to benefit from market in efficiency and regional supply-demand motivated market players to allow ad-hoc cargo diversions, sharing the profit resulting from the arbitraging between the respective parties.

With a careful study of the process of arbitrage from school of thought: Prof. Dr. Hasret B. and others; I have been privileged to understand the nature of LNG and why is not neglected. This same study put up a questions: who are the arbitrageurs, what are the constraints and limitations they fall, and why arbitrage can fail to bring prices close to the fundamental value which implied by standard models.

However, the focus of this article on the nature of LNG arbitrage and its theoretical growth in global markets reveals theoretical development within a simple model and also suggest directions for future research. According to Zhurravleva (2009), he pointed out why the LNG project is still in existence " In 2007, the Equatorial Guinea LNG project sold its entire LNG output on a FOB (Freight On Board) basis to BG for 15 years, without incorporating a destination clause in the contract". Now what she actually meant here is that the business has enabled the buyer (BG) to divert the cargoes and act as aggregators (arbitrageur), effective and monetizing their delivery. Other significant sources of flexible cargoes are Qatar, Trinidad and Tobago, Algeria and Egypt.

The classic destination and the availability of non-committed shipping capacity are not the only barrier towards the LNG arbitrage rather than other factors such as; technical and market restrictions, high transaction costs which hinder LNG diversions. The significance of these barriers varies overtime and differs from market to market; however it is important to understand the aforementioned theoretical importance and the extent to which they may constrain the development of the global LNG arbitrage market.

Therefore with a clear observations of " The Unique Features of the LNG Shipping Market: A Study of Ship-owners Structure and Fleet Distribution" by Wang, S. et al 2011; a common assumption refers to the spending race in which high frequency traders employ LNG trading to execute orders as fast as possible in other to gain an edge in trading. This is because LNG arbitrage was viewed as natural conventional evolution that eventually would translate into more efficiency in the market place as the speed down to all investors in the markets.

The past years of a close witness of how LNG industry put up a dramatic development still remain green in my mind till today. This because I was present creating inspirations with mine Late Timothy O. Anyanwu.; he gave breath to me and nurtured me towards the business in sub-region at Enugu, Nigeria. From a clear concept of it is being characterised with a high-structured and capital intensive one which is tied with a long-term contracts for years or more. He maximized a transparent and profitable annual return for Oando Nigeria Plc till present.

1. 2 LITRATURE REVIEW

With the general growth of LNG arbitrage research in business and financial project sectors, it would be glare to put a distinct relationship or differences between a considerable attention I recent years. In some research attempts to go beyond the project assumptions about how is being created for several years, they focused on point of context from one point of view which uses conversation analysis, such as LNG arbitrage, barrier and other interactional features. It inter-related some research which has focused only on the description of differences, other work has shown clearly how LNG projects reflect and reproduce financial differences. Accordingly, Zhuravleva (2009) pointed that the significant of barriers towards LNG varies overtime and differ from market to market. He pointed also that is important and to the extent to which they may constrain to the development of the global LNG arbitrage market.

According to Mazighi (2003) considered that the globalization of LNG markets requires four conditions to be met; the natural, the economic, the technical and the institutional conditions.

Much of the earlier work emphasized dominance. Neuhoff & Hirchhausen (2008) suggested that assets-specific investments and uncertainty along with the LNG supply chain imply high transaction costs. He went further to point that long-term contracts can however help to minimize the transaction costs for two parties engaging in the commitment. According to an empirical analysis of Ruester (2006) it showed that in response to market deregulation, vertical integration was driven by upstream producers moving downstream with ownership of transportation capacities to exploit arbitraging possibilities and distribution and power companies moving upstream to ensure margins and security of supply.

While some of the more popular work of this type, such as Jensen (2004), there are some potential similarities between the oil market and the natural gas market, however the way a global LNG market will set up is found to be different. The high cost of LNG transportation is one of the main reasons preventing the LNG market to be as flexible as oil market. He went further to point out that; long-term contracts in LNG have been the vehicle for sharing the large up-front investment risk characterize LNG projects, the short-term trading had been growing fast in recent years given the declining costs along the supply chain, the growing diversity of supply sources and loosening of the conventional rigid industry structure. Thus, the long term contract still remains a mainstay of international trade, and the growth of short-term trade volume and price arbitrage are limited accordingly.

Although Zhuravleva (2009) distinction is clearly a useful one, it is also seems evident that the some useful approaches are by no means mutually exclusive. While is important on one hand, therefore, it is important to focus on the development of LNG arbitrage even when there is constrains. It also pointed out some conversation support on (P. 2) clearly there is scope with great deal to expand in the area of this topic research

Is based on embryonic stage of development

Establish more insight on a clear formation of LNG arbitrage.

Distinguish between LNG arbitrage with other trade activities relating to LNG markets.

1. 3 METHODOLOGY

This article is based on primary research. It involves three components: online questionnaires, interviews, mine experience in the business in Nigeria and feedback from the presentations of the research referring to Zhuravleva (2009) " Oxford Institute of Energy Studies (OIES)"

The target group for the research was carefully selected to provide an informed range of insight. Thus, among the participant were natural gas and LNG traders, leading independent consultants, senior figures from several of the major energy companies and publishers of LNG journals and bulletins. The survey's sample size is relatively small due to the highly specialized nature of the topic, the dearth of trusted specialists in the LNG arbitrage trade and the difficulty in accessing experts. Nevertheless, the profiles and experience gathered by mine self and the participants were representative of the best in the sector. The data for the qualitative analysis was obtained with the help of the online questionnaires.

When all the responses were collected, each participant were interviewed to assist in the qualitative analysis of the data.

2. 1 Defining LNG Arbitrage

Arbitrage is defined as the simultaneous purchase and sale of the same tangible goods in two different markets for advantageous purpose of different prices; but here such arbitrage required no capital and entails no risk Thus, referring to LNG arbitrage it means a physical cargo diversion from one market to another or re-experts of cargoes to spot gas market in markets in which gas prices are as much as high that covers the costs and profit remains. According to Zhuravleva (2009) defined " LNG arbitrage as a physical cargo diversion from one market to another, which offers a higher price". He explained further that the diversion of the cargo can be regarded as arbitrage if the cargo was initially committed to the first market and to the initial buyer in a commercial contract. Two key drivers for arbitrage are commercial and operational.

Commercial Driver: This is the ability to take advantage of price differential between the markets, which arise due to differing pricing structures, variations in the relative balances between supply and demand and market inefficiency.

Operational Driver: This is the financial lose minimization in case of plant outages overfill storage tanks or force.

However, advocates of unique world market for gas has to take into account that arbitrage are costly, and thus can lead only in some convergence of prices between different regional markets but not to the full price. According to Ikonnikova (2009), “ it makes the market flexible option and allows market players to benefits from arbitrage opportunity playing on price differential across regional market”.

2. 2 Models of LNG Arbitrage

These are the three main models used in LNG trading;

Models I: Seller – Arbitrage: Here seller and buyer are used to indicate the seller of LNG cargo and the buyer of the LNG cargo. Initial buyer is the customer for whom the LNG has been initially contacted, while End Buyer is the purchaser of the diverted LNG.

Model II: Initial Buyer – Arbitrage: This model points out that the initial buyer’s market prices remain stable due to players’ profits from the arbitrage and replaces the LNG by spot cargoes later. Commonly used by Spanish Importers.

Model III: Independent Trader – Arbitrage: In this model another player called Independent Trader appears in the transaction. He buys the cargo from the initial buyer (Seldom from LNG Seller) and gets the right to divert the cargo to another customer offering a higher price. E. g., Garpron and Gas De France 2004.

2. 3 Barriers to the Growth of LNG Arbitrage in Global Market

After a qualitative analysis from the questionnaires of this article, the growth of the LNG arbitrage market implies an increase in the number of arbitrage transactions annually and the increase in the volumes that are being diverted one market to another. They are more than 12 barriers towards the growth of LNG arbitrage in global market but few will be mentioned here. They are as follows;

The Price Differential Between Markets is Not Great Enough: Price spread must be great enough to cover the transaction costs and be a sufficient incentive for the aggregator, who often has to share the profit with another party. Without a price spread that allows the trader to profit, no arbitrage transaction will take place.

Small Number of Players in the LNG Market: If two buyers are present for transaction in market then an arbitrage deal should be potentially possible. But they are rarely scarce for transaction.

Lack of Price Transparency: Lack of price transparency complicates arbitrage trade and demand quickness of wit and good connections between the traders. In relations to countries involved in LNG trade, the US and UK gas market are the most transparent and liquid in the world while in continental European gas market where LNG is important – Spain, France and Belgium.

3. 1 CONCLUSION AND RECOMMENDATIONS

With clear evidence on today’s LNG world, it has been argued that it will drive the world markets for natural gas from region to unique world price but with a qualitative observation, the growing role of LNG arbitrage opportunities between countries differ from each other. And at the same time, the price gap between countries also differs because of its landing cost (transportation cost).

We suggest a positive recommendation which could guide the global world at large which is “ UNIFORMITY” in terms of LNG arbitrage operation. More research need to be done to enable expand this article aforementioned toward; its embryonic growth development, clear formation of LNG arbitrage and trade activities relating to LNG markets.

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