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### The role of investment in solving the problems of Russian oil refining Tomsk Polytechnic University

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#### Abstract

The article examines the position of the Russian oil refining. There are many factors such as equipment, investments, export duties which seriously affect the current state of the industry. This article describes the reasons for the lag of Russian oil refining from world leaders. The most serious problem is outdated equipment. This fact prevents the development of high-quality oil refining, resulting in significant losses for the budget. Special role is given to investments as a way of raising funds for equipment upgrades. It will help to increase the level of the refinery to the world's leading countries. Creating a competitive industry will develop the economy and the country as a whole.

*Keywords:* oil refining, investments, facilities.

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#### 1. Introduction

It is a well-known fact that Russian economy is dependent on oil revenues. As an exporter of crude oil, Russia loses a large part of potential income. To increase financial return of this type of resource companies should develop the refining and sale finished petroleum products such as gasoline, kerosene, fuel oil, various oils, and more. Now Russian oil refining does not suit these requirements.

#### 2. Author Artwork

The main problem of this situation in the industry is that Russian refineries are mostly outdated. In 2011, according to the Accounting Chamber, the average wearout in the country exceeded 50%. This makes the production of oil products in Russia ineffective. Large share of production takes naphtha that is a raw material for the chemical industry and has a low demand. Automobile gasoline requires deeper processing and has a higher demand, but is not always of good quality. [2]

Another factor of the poor development of deep oil refining is its unattractiveness to investors. Under existing rates of export duties on oil products investments in deep oil refining generate revenue of about 15%, while investments in initial distillation provide up to 35% yield. It leads to the fact that investing in high-quality refining where an obsolete equipment should be replaced is not attractive for potential investors.

Investing in refining has little demand because of the relatively low occupancy of Russian refineries compared with Western. So in 2012 domestic factories have typical utilization rates about 83%. At the same time operating experience of overseas refineries shows that the effective work of the enterprise is provided with capacity utilization at about 90%, in the U.S. this figure is kept at 95% and above. From this follows that the available capacity at the moment can cover the needs in petroleum products, and an increase in investment will not give big dividends by increasing the amount of products. Quality of such products will definitely be higher, but not enough to survive in price competition with existing plants and bring income to investors. [1]

So how is it possible to improve the efficiency of refining? The priority direction is the modernization of equipment that could not realize deep, high quality and complete processing. Existing amount of assets in the industry is largely a legacy of the Soviet Union. But since then, much time has passed, technologies are moving forward, equipment wears out, and the remaining capacities are no longer capable to provide a high level of quality to meet the growing demand for petroleum products.

Investments will help most effectively raise the level of the Russian oil refining. They can be implemented by the State, enterprises interested in getting the best quality products, companies wishing to receive the income from investments, and private investors. It is also possible to attract foreign capital, if the State considers it appropriate. [4]

Government sees this problem and recognizes the need to attract funds for modernization. According to the Minister of Energy, 2015, the amount of investment in this sector would reach 1 trillion rubles. It will allow by 2020 to increase the refining depth from 71.3 to 90%. Attracting these investments will help to increase refining capacity by nearly 50%. [3]

Another possible way to attract these investments is to create preferential conditions for increasing the attractiveness of the investment in deep oil refining. To realize this step there is a need to do a revision of existing tax system toward reducing the tax burden and restructuring of export duties. To develop high-tech refinery the duty rates for crude oil and shoddy products should be increased. Reducing these rates for the end products will help to attract investment and development of this industry. With proper redistribution of rates, budget losses can be avoided or kept to a minimum, which makes this option is quite painless for the state.

In addition, the establishment of universal minimum standards for products can also contribute to improving the efficiency of production in the industry. For example, such standard for motor gasoline may be Euro 5 gasoline. It will allow to encourage enterprises to improve product quality and to perform prompt upgrade. The main inhibiting factor of this measure is that not all companies will be able to find the funds within the prescribed time to replace equipment. This situation can create a shortage of products and have a serious impact on the end users.

Thus one can draw a conclusion about serious problems in Russian oil refining sphere. And to solve these problems there is a need to combine efforts of the state, enterprises and end-users.

Task of the state in this process is to create conditions for the possibility to carry out modernization. Also, the government should create a system of taxation that would encourage enterprises to upgrade equipment. Consumers should orient themselves on the use of quality products. And that is why it is necessary to inform them about the benefits of using high quality products, perhaps conduct researches showing the consequences of using low-quality petroleum products. For example, researches about reduction of mechanical life, an increase in fuel and lubricants on the quantities of emissions to air from various types of gasoline and many others. This change in mind is possible only in a long period of time and with the active promotion of high-quality products among the population. This step realization requires serious government program. [5]

### 3. Conclusion

Despite the significance of the state and consumers the main subjects of modernization are the enterprises themselves. Without having an awareness of the need to use modern technology no government program of modernize would work. Moreover, it is a company who solves the problem of selecting the most suitable investment option that provides the maximum increase of product quality.

Combining all three of the mentioned modernization subjects will be the most significant factor of raising the level of Russian oil refining to the level of the leading countries of the world.

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