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## STRATEGIES TO DEREGULATE THE DOWNSTREAM PETROLEUM SECTOR OF PAKISTAN

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### ABSTRACT

Oil products play a dynamic role in the overall energy domain because it supports country-wide transport, industries, and households. The oil market in most countries is deregulated and provides free access to every organization or independent player. Some of them have followed this policy from the very beginning, while others have followed the strategy regarding deregulation at a later stage. In Pakistan, there is a usual tug of war between Government authorities and Oil Marketing Companies (OMCs) concerning the decision of setting oil prices. This exploratory study aims to assess the prospects of deregulation of oil prices from the point of view of stockholders from the Oil Marketing Companies (OMCs). Data is gathered through interviews from the professional stakeholders who are working in the supply chain department in the downstream petroleum sector of Pakistan, and a thematic analysis method was used to analyze the data. As per the data obtained from the interviewees, there are both advantages and disadvantages of deregulation of petroleum. Advantages are like low prices of petroleum products, positive impact on the economy, opportunities for new entrants, and creation of new jobs. While the disadvantages are oligopoly created by the mafias, failure of the system, dumping of fuel, and increase in cross border smuggling. While the major barriers to deregulation are the Oil and Gas Regulatory Authority (OGRA) and political forces, and the facilitators for the deregulation are foreign direct investment and high tax collection of the Government. The deregulation must be done immediately to pass on the benefits of reduced and appropriate prices of petroleum products besides their availability in every city of the country. Government should also promote bulk import and storage of petroleum products so that the companies get possible economic ordering benefits of low prices.

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### INTRODUCTION

Energy plays a vital role in the economic growth of any country and the sources of energy are many like natural gas, solar, electricity, nuclear, wind, and oil. These forms of energy are important for gearing up the social and economic development of the country (Dolge et al., 2021). Oil products become to play a vital role in the overall energy ambit because it supports country-wide transport, industries as well households thus go down to the lowest level of the marketplace. In foreign countries, the downstream oil marketplace is open and provides free access to every organization or independent player (Sun et al., 2021). Pakistan depends mostly on the energy resources of oil and gas demand to be met. Local resources of oil are very limited and are not sufficient to meet the energy requirement of the developing economy. So that's why Pakistan imports a large amount of oil and its related products from Middle East countries (Uddin et al., 2021). Currently, in the upstream and downstream sectors of the oil, there are numerous international and local companies are involved. The policies of the government of Pakistan are very

attractive for overseas companies to harvest in the oil sector in Pakistan. But due to the unstable political conditions and insecurity of the country, it is highly risky for foreign investors to invest in the petroleum sector (Ahmad and Jha, 2008).

The oil industry of Pakistan is highly controlled by the Oil & Gas Regulatory Authority (OGRA) which comes under Ministry of the petroleum (MEP). OGRA is the chief regulatory authority of the midstream as well as downstream market structure of the oil sector. Founded in March 2002, the Oil and Gas Regulatory Authority (OGRA) by the Federal Government aims to promote competition, safeguard the public interest and raise investment in both mid and downstream oil sectors and regulate pricing of the sector. The subject body is comprised of a chairman and three other members from the sector of gas, finance, and oil (OGRA, 2002).

Oil and Gas Regulatory Authority (OGRA) is a government organization that is responsible for the monitoring of the petroleum prices and petroleum products, and these prices of the petroleum products are decided based on the previous

month's cargo of the Pakistan State Oil and then recommended by the OGRA and finally, it is approved by the Prime minister of Pakistan (Ahmad et al., 2022). While on a monthly basis or when required, the Ministry of Energy and Petroleum manages, controls also approves the planning of supply and demand to determine the shortfall of petroleum products and their import by allowing the permission of its import or otherwise to import by the allocation of the production of the local refineries, and the approval for the imports on which time (Zeb et al., 2017).

If we see the overall business model of the country, there are different stakeholders among which one is the oil industry which earns the least profit margin (Bashir et al., 2011). The reason for that is because this industry is too much regulated by the government, (which is based on the average prices of the crude oil on monthly basis versus the prices of the cargo of the PSO, this sometimes moves to negative or sometimes in positive) (Qasim et al., 2021). For example, the regulated margin for the Oil Marketing Companies is Rs 2.81 per liter, which is only 4% of the consumer price. The profit margin for the dealers on the petrol is Rs 3.70 per liter and the profit margin for the Diesel is about Rs 3.12 per liter. While the government earns Rs 41.78 (56.1%) per liter on petrol and Rs 45.26 (56.5%) per liter on diesel due to the high Petroleum tax which is Rs 30 per liter, and the Sales Tax which is approximately Rs 11 per liter and the custom duties which are at the range of Rs 3.61 per liter (DAWN, 2018).

Recently in the period, only profit margins have been adjusted upward due to inflation. For example, in November 2019, it was adjusted only for Rs 0.17 per liter. During this duration of time, Oil and Gas Regulatory Authority has enforced a variety of requirements for the investment-intensive, which includes the maintaining of the 20 days inventory in the storage for oil marketing companies, asking them to build oil terminals of their own across Pakistan and a keeping a compliant center for the up-gradation of the standards (Mumtaz and Smith, 2021). Oil Marketing Companies import 70 percent of the petrol and 40 percent of the high-speed diesel. Similarly, a large amount of crude oil is also imported by the oil refineries. From 2018 to 2019, due to the aggregate depreciation of the rupee to 56 percent, the oil industry has lost more than Rs 40 billion. If we see the rupee value, its value was Rs 105 in January 2018, while now it is more than Rs 155 as compared to one dollar. While In 2020, the value of the rupee further depreciated to Rs 9, which moved from Rs 155 to Rs 164 as compared to one dollar, which contributed to a further enhancement in the supposed amount (Bhutta, 2020).

In April 2020, a mechanism was approved by the government to take up the substitute gain or lose in the prices. However, at that time the petroleum industry was already facing a loss of around Rs 50 billion. Other factors are responsible for the financial losses of the oil marketing companies such as the turnover tax, which is charged based on "gross receipt" despite "regulated margins" which is the actual revenue. So the profit margin was less than 4% of the price; on the other hand, the tax is charged based on the total price. The turnover tax in the last budget was raised from 0.5 to 0.75% (Abbasi, 2021).

During the pandemic situation, the Govt. provided relief to very few industries like construction, etc. On the other side, the State Bank has also provided relief to its customers and also banks,

while the oil industry was not given any relief (Ali et al., 2021). So that's why the oil industry bears large inventory losses due to extraordinary price turn down in the international markets a Rs 42 per liter on petrol and Rs 37 per liter on the high-speed diesel from March to May 2020. During this time, only the oil refineries lost Rs 31 billion, and more or less oil marketing companies lost the same amount. Almost each of the oil marketing companies was running their business from borrowed funds (Khan, 2020).

Further, the estimated loss for June due to the high gap in prices of the local refineries as compared to international prices has destroyed their business resulting in a huge unfavourable impact on the country and also on the public at large which in result produce possible unemployment (Tao et al., 2021). The failure in the oil sector has also created affected the collection of the taxes as the prices of the oil which are more than 50 percent of the element of the taxes and duties, which are being collected from industry on behalf of the state and which were deposited into the treasury of the government (Rasheed et al., 2021).

In March 2020, the government has officially announced that there would be a complete lockdown across Pakistan to control the spread of Coronavirus. Subsequently, in the same month, the Ministry of Energy and Petroleum imposed a ban on the import of oil and also bounded the companies to cancel all the planned imports of oil. Due to this closure of the border, there was no entry of any imported products in the market, so when the seasons of harvesting started, the demand for products also increased. Despite the lockdown, during the whole month of April 2020, the sales of petrol declined by 20 percent, while the sales of high-speed diesel increased by 42 percent. Due to such demand in the market the stocks of the country suddenly washed-out (DAWN, 2020)

Thus the ministry of petroleum gave the authorization to import oil on April 28, while during this time, it became an extremely difficult task to bring imported oil due to the non-availability of the marine vessels. During the crisis of the COVID-19, the ministry of petroleum was planning to import oil on weekly basis, which is not possible to manage an international product in the market due to the availability of vessels which hardly requires 30-45 days of planning (Abbasi et al., 2022).

During the last month, the prices of the oil became less by Rs 7 which was based on the bulk cargos of the PSO which were booked during the April of this year. Therefore they have raised the price by about Rs20/liter due to the local refinery price and the international price. So Due to this massive price disparity, the local refineries are not able to afford to import the huge volume of crude oil which in result bring a high level of shortage of petroleum products as well from local refineries (Zafar & Khan, 2022).

According to government officials, they are trying to keep the premium motor gasoline or high-speed diesel available to the customer through the PSO, but they are ignoring the reality that the PSO has always imported a limited amount due to the current existing local prices. If PSO keeps the supply on then they have to sell their recently imported inventory which was bought at high prices, due to which PSO suffers from a huge loss (Yaqoob et al., 2021).

We see that it is a normal market practice when there is a downward price change is expected on a product at the end of the month, then the dealers avoid stocking more from that product during that month to save themselves from the risk of the loss. This adds an unnecessary burden on the logistics side on the initial few days of the month in which the oil price shave changes and which generates a fake shortage in the retail market throughout Pakistan (Gabhane and Gabhane, 2021). Over time, the Petroleum market has evolved significantly on an international scale, and as a result, competition has emerged creating internationally fluctuated prices for crude oil as well as finished products. The structural reforms of the petroleum market have turned out to be an important element of liberalization policy in numerous undeveloped countries. The responsibilities of the government in the oil sector are rephrased, and accordingly, the entire market structure is deregulated, i.e., the government's own involvement which is regulating the state-owned oil companies controlling the market prices (Bhattacharyya, 1996).

In Pakistan, there is a usual tug of war between Government authorities and Oil Marketing Companies (OMCs) concerning the decision to set oil prices (Boleslawski et al., 2012). Very recently, in a pandemic situation, the government has set extraordinarily low prices among 15 oil-producing countries which include Qatar, Saudi Arabia, etc. and due to which controversy, supply shortages, as well as black marketing occurred and as a result, the end consumer has suffered a lot in such situation (Bhandary & Gallagher, 2022). Within Pakistan, there exists a usual pull of battle between governing bodies and essential oil marketing companies (OMCs) regarding the decision associated with setting essential oil prices. Recently, within the pandemic scenario, the government offered to set extremely low costs among fifteen oil making countries which usually includes Qatar, Saudi Arabia, etc. plus because of which usual controversy, provide shortages because well because black advertising occurred plus as a result, the particular ending customer has experienced a great deal within such scenario (Bhutta, 2020)

On the other hand, Oil Marketing Companies (OMCs) blamed the shortage on the petroleum division, claiming that it did not adequately protect and manage the demand and supply through timely interventions. The petroleum division argued that there was an abrupt increase in demand in the wake of the lifting of the Corona restrictions. Government circles blamed the shortages on OMCs, which did not maintain the required inventory of 21 days and hoarded did not release supplies to the market the petroleum products. OMCs argued that they were suffering a loss of Rs 17/= per liter due to the inventory bought by them at higher prices. Similar arguments were proffered by the intermediate dealers and retail distributors as well (Test et al., 2022).

Keeping such issues in view, the government has likely to deregulate petroleum pricing. The major aim behind deregulation is to enhance competition in the industry thus bringing the benefit of lower pricing to the final consumers. In principle, the Pakistani government has also decided to deregulate inland freight equalization margin (IFEM) which will help to maintain petroleum prices even across Pakistan (Liaqat et al., 2022). This will eventually result in a difference

in prices among cities and may be from one company to another. Port city customers can get the benefit of economical and cheapest prices while an upcountry customer will pay substantially higher rates. Depending on the transportation expense, the difference between prices among cities may vary from Rs 1 to 5 per liter (Khaleeq, 2020).

For a struggling economy like Pakistan, the outbreak of Covid-19 could not have come at a worse time since the overall economic outlook in Pakistan was already at a low ebb. For the oil industry, in particular, Covid-19, along with a persistent lockdown of business activity, is turning out to be a continuous disaster with no end in sight. The country's oil sector has to also grapple with poor decision-making being done by OGRA, which severely lacks clear-cut, result-oriented policies to drive the industry out of the crisis. Currently, the oil sector demands some drastic measures to be taken immediately (Iqbal et al., 2021).

Oil tends to be the lifeblood of the modern economy because it is an essential raw material for key economic activities and holds an undeniable strategic value for the country. However, for an oil-dependent economy like ours, the controlled oil prices of the state have both long-term and short-term destructive consequences. In such a depressing scenario, the best way is to deregulate the oil prices is to tackle the supply chain issues and to make smooth the profit margin and cost of the oil companies. The deregulation of petroleum prices will help the oil refineries to invest more and more in the oil industry and the Oil Marketing Companies would also be able to expand their storage capacity and retail networks (Essays, 2017).

According to the Oxford Advanced, Learner's Dictionary (2005) deregulation means a trade or a business that is free of rules and control. This means to decontrol the business from the state. The word 'Deregulation' defined by investorwords.com is the elimination of the control of the government from a sector or a particular industry and to allow them to do a free trade in an efficient marketplace. Deregulation takes place when the government is interested that there will be more and more competition in a particular industry. As a result of Deregulation, there will be competition in the delivery of the services, and this will result make capable the consumers making a wide range of choices in the quest for their satisfaction (Olujobi, 2021).

For the understanding of the deregulation, one must first have to understand the regulation, as we know that there is no smoke without fire, so that is why there is no deregulation without the regulation, for as there is no smoke without fire, there is no deregulation without initial regulation (Kalejaiye et al., 2013). Regulation means any legal tool or legislation or any type of executive policy or an element of the constitution or the political socioeconomic control by the government (Yin, 2021). The term deregulation has been defined by the different researchers by their points of view. Deregulation is an act of eliminating different unnecessary and time-consuming procedures of the businesses which he called red tapes (Addae and Ackah, 2017). Deregulation is an economic instrument for the removal of the restrictions like price or controls the rates of the products from the production, distribution channel and at the end on the consumer sales. In other words, we can say

that deregulation is a policy when it is implemented faithfully will clear all the barriers of a smooth-running economy, and will enhance the performance of that economy (Sreenivas, 2019). Deregulation is a policy in which the government opens the market for full-time competition from the supply side often down to the household utilization level. Due to this system of competition, the market price is decided by the market forces of supply and demand, and at the same time prevention of monopoly will lead to the suffocation of economic growth and efficiency (Cleveland and Morris, 2009). Deregulation is an effort to improve the competition between the economic actors by bringing an economic reform which may be one or more policies that weaken or completely restrict them in the aspect of price control (Kalejaiye et al., 2013).

Deregulation is to make free any trade and business activity from the controls and rules. Deregulation is the allocation of resources by market forces. He uniformly saw that the price in the market is determined by the interplay of the demand and the supply (Hornby, 2001). It means that if the government withdrawal its control of the market, then the prices of the goods and services are decided by the demand and supply forces (Asghar et al., 2021). Suppose we see the deregulation from an economic point of view, so the fundamental objective of the deregulation is to bring more and more competition into the market, and this will, as a result, increase economic activities (Olujobi, 2021). Deregulation is said to be the removal of government control and interference over the market to encourage the operations of the market. For example, the government must have to allow the price system to be set by the forces of the demand and the supply. The operators should be up to date with the rules and regulations of the competition for greater market forces (Arong and Ikechukwu, 2013). Deregulation is the removal of the subsidy provided by the government and the termination of the state system which controls the prices. Furthermore, certain state conditions may need a deregulation policy in the country, which includes the incapability of the government to carry on subsidizing petroleum goods because of competing countrywide priorities and the need to control smuggling of the products overseas, in that way without knowing subsidizing other economies (Maximus, 2012).

Deregulation has negative immediate effects on the real incomes of the household sector. If we see the short term so the prices of petroleum will increase immediately after deregulation but will drop in the long run when the new companies enter into the market. There will be a negative reaction by the public by imposing this policy but it can be channeled by public awareness (Olawaiye, 2014). When we move from the price ceiling of petroleum to the deregulation of petroleum, we see that the tax duties on petroleum products work as a moderator for the pro-market reform. Even due to the WPT there is a high level of discouragement for the domestic producers by removing price controls at least permitted oil to be distributed to its most important uses. In other words, even if the supply side still controlled massive distortion and the demand side had been made much more efficient (Murphy, 2018).

Many countries of the world have developed the downstream sector of petroleum by deregulation. Due to this deregulation, the private sector involvement has increased, which has boosted investment in the sector (Olujobi et al., 2020). If there

would be timely importing of petroleum products and distributed timely through a proper supply chain system which will be efficient and effective and will be capable to adopt innovative tools of marketing then this system will in result ensure the growth of the petroleum industry. This is the most ideal situation that the stakeholders of this sector desired (Manneh, 2020).

Deregulation from the last two decades has been implemented in the electric sector of Japan to encourage market competition, increase effectiveness, and reduce the electricity prices following the trend of worldwide deregulation. After that, the policies for deregulation were adopted by the whole to bring economic reforms to efficiently activate the Japanese economy. Electricity deregulation is changing the market. After the complete deregulation of electricity in April 2016 then in 2017, the gas sector was also deregulated. As a result, oil, gas, and telecommunication sectors directly entered into electricity retailing. Thus severe competition and reorganization are probable to make active the electric industry (Wang and Mogi, 2017). Fossil fuels of a nation play a vital function in meeting the energy demand. Most major fossil fuels are Oil & Gas, Coal which we use mostly to overcome our energy needs. These fuels play a key role in defining the economy of a country. If the prices of these fuels are low, it will lead to a huge impact on the economy of those countries that are the importer of these fuels. So that is why these fuel importers states always used different techniques to make the price of these at a lower level for the general consumer to make the economy of the country efficient (Agrawal, 2016).

Due to the deregulation of the petroleum sector subsidies are cut down for the local users and this in a result leads to a heavy level of under-recovery for the petroleum marketing companies. While the petroleum products, such as diesel and petrol will continue to be heavily taxed, the mechanism of taxing would not only work as a barrier to suck up the fluctuations in the international oil prices but also would be a means for the environmental protection and demand management (Srivastav et al., 2018). For the downstream deregulation, Govt. has to provide facilities to that sector and also needs to change the pricing policy. For the attraction of new entrants into the market, the prices of the product before taxes must be set by the market forces and there should be an equal amount of taxation for both the local and foreign investor. For this, most of the countries use transitory pricing to stimulate the import-export uniformity prices during the short period before the prices are fully deregulated (Mayorga-Alb, 1995).

It is not possible that there will be deregulation in the market without having the cost for it. The cost and benefit analysis always forms a clear basis for the adoption of any particular policy, and in this case, it was supposed that the benefits of deregulation be more important than the cost of it. The most important cost of deregulation is the increase in the prices of the transportation of goods and other services. This chain of the increase in prices is expected since, like in economics we see that everything affects the other thing, but oil is a unique commodity that causes a jump in the overall inflation, so that is why the prices of oil are highly monitored to avoid the risk of that high inflation (Yusuf et al., 2019).

## METHODOLOGY

### Design

The researcher conducted exploratory research in which the researcher interviewed the petroleum sector supply chain stakeholders across Karachi, Pakistan. Karachi is the hub of the petroleum sector of Pakistan. The researcher conducted all the interviews face to face in Karachi city. The approach used for this research was the case study method to find out our research aim that deregulation in the downstream petroleum sector in Pakistan is a blessing or curse. Ethical approval for this research study was taken from the ethics committee of the college of business management at the institute of business management.

### Interview Questions

Do you agree that the government should go ahead with the deregulation of the downstream oil sector?

How do you see government's intention to deregulation the downstream petroleum sector in Pakistan?

Will the deregulation of the oil sector force down the prices of petroleum products?

Will the deregulation result in the elimination of smuggling the product across the border?

Do you think that the government should deregulate the oil sector gradually?

Do you agree that there are political implications for deregulation policies?

Do you agree that deregulation policies will improve the overall Pakistan economy?

Do you agree that the removal of fuel subsidy is necessary and do you agree that government should subsidize the prices of petroleum products?

Do you believe that deregulation of the oil sector will create job opportunities for Pakistanis?

Do you believe that the deregulation of the oil sector will be a blessing to the Pakistani nation?

Do you believe that the deregulation of the oil sector will be a curse to the Pakistani nation?

### Sampling and Recruitments

The researcher constructs a sampling matrix of the supply chain experts, supply chain managers, and ex-supply chain managers who are mostly working in procurement and sourcing departments from the oil marketing companies of Pakistan. All the Participants selected for this study were voluntarily and those selected participants were sent an invitation from the researcher to participate, which included the consent form, information leaflet, and the topic guide. Those who didn't respond were sent three reminders. For this Sampling, Matrix has been developed given in Table 1.

As the focus of the study was on deregulation of the petroleum sector of Pakistan so it was made sure that the sample must have only consisted of the oil marketing companies of Pakistan so that the problem would be covered properly in depth.

Table 1. Sampling framework.

S. No	The sampling framework had Participants from the following domains
1	Supply Chain Experts of Oil Marketing Companies
2	Supply Chain Managers of Oil Marketing Companies
3	Ex- Supply Chain Managers of Oil Marketing Companies

#### Box 1: Covered Areas in Interviews

- Advantages of the deregulation of the Petroleum
- Disadvantages of the deregulation of the Petroleum
- Barriers/Facilitators affecting deregulation of the Petroleum
- Economic and political consequences of the Petroleum Deregulation

The age group of the research respondents was from 35 to 65 years which were mostly senior employees of the oil marketing companies. Interviews were conducted with the respondents until the data saturation was achieved by the researcher. Data saturation

is the point where no new information has emerged; just repetition of the old information starts (Irshad et al., 2021). During the twelfth interview, data saturation was reached. All the twelve respondents were male. Table 2 shows the characteristics of respondents.

Table 2. Participant's characteristics.

Interview	Age Group	Gender	Nature of Work
1/35-45/SCM	35-45	Male	Supply Chain Manager
2/45-55/XSCM	45-55	Male	Ex- Supply Chain Manager
3/45-55/SCM	45-55	Male	Supply Chain Manager
4/35-45/XSCM	35-45	Male	Ex- Supply Chain Manager
5/35-45/SCM	35-45	Male	Supply Chain Manager
6/45-55/SCE	45-55	Male	Supply Chain Expert
7/35-45/SCM	35-45	Male	Supply Chain Manager
8/55-65/XSCM	55-65	Male	Ex- Supply Chain Manger
9/55-65/SCM	55-65	Male	Supply Chain Expert
10/45-55/SCM	45-55	Male	Supply Chain Manager
11/35-45/SCM	35-45	Male	Supply Chain Manager
12/45-55/XSCM	45-55	Male	Ex-Supply Chain Manager

### Data Generation

The average time for the interviews was 20 minutes and which were undertaken during the period from 10<sup>th</sup> July 2020 to 10<sup>th</sup> August 2020. All the interviews were undertaken in the English language which was the preference of the participants. Six questions were completely opened ended asked the participants. A topic guide for the interviews was also used (see Appendix D), but they were given an environment to speak freely.

### Data Handling and Analysis

The researcher used digital means to record the interviews and also noted down the field notes. Then the researcher transcribed the interview data. These transcribed data were sent back to the participants for their satisfaction and the majority of them replied positively. Then the researcher analyzed these transcribed data manually by using the thematic analysis method.

### RESULTS

We have approached 30 participants working in the procurement and sourcing department of oil marketing companies in Pakistan. Among which 20 participants were ready for the interview but at 12<sup>th</sup> interview, it was reached on data saturation. The following themes emerged and the findings are ordered accordingly, i.e., Advantages of the deregulation of petroleum, the disadvantage of petroleum deregulation, and the barriers/facilitator of the deregulation of petroleum.

#### Advantages of the Deregulation of the Petroleum

Procurement and sourcing professionals, who recommended deregulation and spoke out in favor of it, had narrated that deregulation is a positive approach of the government, and it will create opportunities for the companies to order and stock fuel products economically. It will create not only bring down competitive prices but also create a lot of new job opportunities for the people. Government should provide a good policy structure, thus facilitating ease of doing business to get the positive impact of deregulation on Pakistan's economy.

Respondents DR-AB & DR-TA remarked as under:

*"It will be a blessing for Pakistan including Government as well as companies because all over the world, in 70% countries, deregulation has already occurred and they are getting good benefits out of it."*

*"It is a blessing if the Govt will regulate the policy properly and efficiently. Govt must direct the OGRA to form a communication network to regulate the prices of every company at each filling station constantly"*.

Respondents also urged that deregulation will have positive impacts on Pakistan's economy. One narration by DR-MA is given as under:

*"There will be the positive impact of this on the economy and it will help the Govt to generate more and more revenue based on taxes if Govt will implement proper taxation policy on the petroleum industry and can monitor these policies properly"*.

Concerning the creation of a new job market and increase in foreign direct investment, respondent DR-TA gave their views as under:

*"New jobs will be created if this policy is properly implemented; this will in result bring foreign direct investment and the expansion of the new chains of petroleum distributors in the market"*.

#### Disadvantages of Deregulation of the Petroleum

Few of the respondents provided their viewpoint in opposition to deregulation in Pakistan, which includes increasing fuel prices, dumping of fuel products in storage pockets of various companies, loss of revenue, and political issues for the government. Some of the respondents stated that deregulation would affect the competitive environment, which will create issues for small and medium-sized companies.

The most common narration was the increase in prices which is given by the respondents (DR-QA and DR-MIB) as under:

*"Worse. I seriously doubt any benefit of deregulations. This government is unable to control prices over many other commodities, so how can we assume that it will be beneficial for people"*

*"Petroleum products are a necessity to every other industry. It runs our economy actually in physical form; therefore, any deregulation must be avoided. It will create a bad impact on every other industry due to risk of monopolism and sudden increase in prices and shortage of stocks etc."*

Respondents also stated that deregulation will have negative impacts on Pakistan's economy. One of narration by DR-MIB is given as under:

*"Economy will be affected badly. Government revenues will be reduced. The tax structure will be disturbed as well as government will be unable to control the dumping of big companies."*

Concerning the creation of new job markets, respondents (DR-MIB) stated as:

*"Deregulation will also create issues in the job market as the consolidation will occur, many executives will be jobless. Therefore, it will have a negative impact on the job market"*.

#### Barriers/Facilitators Affecting Deregulation of the Petroleum

Most of the respondents urged that deregulation must be done gradually, like petrol in the first stage and diesel products at a later stage. While other said that government should introduce a price ceiling, i.e., defining minimum and maximum prices for the products. Few of them urged that there should be strict regulation and good monitoring system by the government to control the market. Other identified factors include consolidation of companies, i.e., big companies start buying small or medium-sized companies. At the same time, some of the respondents stated about the increase in government share through taxes and levies on petroleum products.

Respondents (DR- MUA, and DR-FDK) narrated respectively as under:

*"Govt must have to make an efficient regulation and communication system to monitor this."*

*"I will suggest the government please do it as soon as possible and also make an efficient regulation and communication system to monitor this."*

Besides that, one of the factors stressed by the respondents was the gradual deregulation of petroleum products. In this regard, a respondent (DR-AB) stated as under:

*"Well, I think Govt. should do it gradually like the first start with Diesel products then do it for Petrol. In that way, Govt. will get a picture of its impact and accordingly adjust its policies and procedures of deregulation."*

With regards to the political consequences, most of the respondents remained positive and stated that there will be no issues for the government if deregulation is undertaken with sincerity.

Respondent (DR-TK) provided his response as under:

*"There will be no political consequences on regulation if the Govt. will do it with a sincere heart and not just for the blessing of their organization (PSO) which is currently holding 55% of the market share. Govt. should do it openly to enhance fair price competition in the market."*

Another respondent (DR-MA) also narrated as under:

*"Nothing serious will happened just there will be two-three days resistance of the opposition parties which is a usual problem in Pakistan after that the*

*matter will be finished and it will be deregulated properly if the Govt is willing to do it properly."*

One of the important factors that are being extracted is the Price Ceiling which is highly recommended by a few of the respondents. They urged that Govt. should regulate the prices by defining the minimum and maximum prices of the products. Respondent (DR-TK) stated as under:

*"I think Govt. should make strict policies of deregulation of maintaining inventory for any finite period as well as price ceiling like making upper and lower caps on the prices. In that way, it will work well only."*

On the other hand, one of the respondents opposes the price ceiling because of the "Mafias".

*"Well, I don't think, it will work even, because of "Mafias"."*

Other recommended factors include a good communication system for capturing real-time data of customers to retain them with the company's brand.

*"A good communication system must be in place. IT industry will also be flourished due to implementation of systems required to capture real-time data of customers, like tracking them, offering good competitive prices, customer retention and loyalty with the brand."*

Table 3. Identified themes.

Codes from Interviews	Identified Themes
Opportunities to Stock Fuel Products The positive approach of the government Benefits for the government Low competitive prices Recommendation for deregulation Creating Competitive Environment Ease of doing business Regulation of the system Positive Impact on economy A new job market will be created Blessing for Pakistan Decrease in cross border smuggling if regulated	Advantages of deregulation
Dumping of Fuel Products Political issues for the government Loss of revenue for the government Non-recommendation for deregulation Affecting Competitive Environment Oligopoly created by Mafias Issues for small and medium companies Failure of the system Negative Impact on Economy People will lose their jobs Curse for Pakistan Increase in cross border smuggling	Disadvantages of deregulation
Gradual deregulation of Petroleum products Consideration of Political viewpoint Price Ceiling (defining min and max prices) Foreign Direct Investment Strict regulation by OGRA Variety of prices across cities/provinces Consolidation of companies Government share (Sales tax, Levy, Income tax) Good monitoring System	Barriers/Facilitators of deregulation

## DISCUSSIONS

### Statement of the Principal Findings

It is found that deregulation contains several benefits for the industry including fair price competition, opportunities to stock fuel products, ease of doing business, creation of new job markets, and supporting allied industries like transportation, IT, and communication. It can also be beneficial for the government to increase foreign direct investment, regulate cross-border smuggling of products as well as and increase their revenues due to implied taxes and levies. On the other hand, certain disadvantages are also associated with the process of deregulation, like fear of oligopoly, which may result in increased prices set by a few companies besides dumping petroleum products. Furthermore, a few factors are also highlighted which can be beneficial as well as tragic for the industry.

### Strengths and Limitations

The main strength of this research study is that the sampling strategy was followed was purposive sampling which includes the participants who have a huge experience in the supply chain of the petroleum in the oil marketing companies of Pakistan, and most of them were working currently on the procurement and sourcing department of oil marketing companies. The response rate was 66% from the respondents and the researcher used both inductive and deductive analysis until it reached the saturation point of the data. At the end of the interviews, each participant was allowed to discuss the issues which may be not raised by the interviewer during the interview. Also, it was taken care of during the study to ensure that the validity of the research should be maintained that the researcher used different tools such as reflexivity, fair dealing, and attention to deviant cases.

### Considering Findings in the Light of the Existing Literature

The key findings of this study are mostly aligned with the literature about the deregulation of petroleum. As per our results and literature also it is claimed that there are so many advantages of deregulation, which are lowering the price of petroleum products, easy availability of the petroleum products, and the growth of the petroleum sector, which in result will generate employment opportunities for the general masses (Murphy, 2018). While the disadvantages of deregulation are an increase in the prices of petroleum prices, non-availability of petroleum products, an oligopoly will be created by the market mafia. According to the results, these disadvantages are created because the authorities like OGRA who are responsible for controlling and enforcing the laws regarding the petroleum industry have no such advanced level management system that they can easily control or run this deregulation. Although most of the developed countries that have deregulated the oil prices and those have strong regulatory institutions are experiencing this decision in good if we see it from the economic point of view (Olawaiye, 2014). This research also shows that there are so many barriers that will limit the government to not to deregulating petroleum products. These forces are mostly political forces or market mafias who don't want to let the market be deregulated because as a result of the deregulation, small investors can easily enter the market.

### Implications for Policy, Practice, and Research

For the implementation of a proper deregulation policy in the petroleum sector of Pakistan, the government must need to implement strong and rigid policies that the general masses can avail the advantages of the petroleum deregulation like easy availability of the petroleum products, lowering the petroleum prices, and creating a potential market for the job seekers as well as for the investors and also for the to avoids of the disadvantages of the deregulation which are high fuel prices, non-availability of the petroleum products and the oligopoly of the petroleum mafias. The petroleum regulatory authority OGRA should be properly should be enriched with capable human resource and technological management systems to regulate this efficiently.

## CONCLUSIONS AND POLICY IMPLICATIONS

This study was based on finding the positive and negative aspects of deregulating petroleum products in Pakistan. So different factors have been found from the qualitative analysis of the problem. The themes extracted from the current study provide the basis for the regulatory authorities as well as companies to make their strategies for deregulation of petroleum prices in Pakistan. According to the perception of the majority of the petroleum expert, the research study concludes that deregulation must be done immediately to pass on the benefits of reduced and appropriate prices of petroleum products besides their availability in every city of the country. Due to the variety of prices, port cities can get most of the benefits of lower prices, while on the other hand, the government should come up with strict monitoring and control system along with the price ceiling, i.e., defining minimum and maximum prices. Government should also promote bulk import and storage of petroleum products so that the companies get possible economic ordering benefits of low prices. For the implementation of a proper deregulation policy in the petroleum sector of Pakistan, the government must need to implement strong and rigid policies that the general masses can avail the advantages of the petroleum deregulation like easy availability of the petroleum products, lowering the petroleum prices, and creating a potential market for the job seekers as well as for the investors and also to avoid of the disadvantages of the deregulation which are high fuel prices, non-availability of the petroleum products and the oligopoly of the petroleum mafias. The petroleum regulatory authority OGRA should be properly should be enriched with capable human resource and technological management systems to regulate this efficiently.

### Limitations and Future Research Directions

There are several limitations to this study. First, this study was only limited to the petroleum expert perception of the only Karachi-based. Further study can collect the views of different experts in the petroleum sector from the different areas of Pakistan. Secondly, we have only conducted interviews till the point of data saturation. Due to this, it is possible that we may have missed a lot of views about the problem. The further researcher can increase their sample size for the interview to further dig out the problem to find new factors if they exist. As this study has adopted the qualitative philosophy of the

research so that's why the researcher used an inductive approach to justify the arguments of proof.

## REFERENCES

- Abbasi, U.A., 2021. Oil price war during covid-19 and its impact on Pakistan. *Grad. J. Pakistan Rev.* 1, 48–58.
- Abbass, K., Begum, H., Alam, A.S.A.F., Awang, A.H., Abdelsalam, M.K., Mohammed, I., Egdair, M., Wahid, R., 2022. Fresh Insight through a Keynesian Theory Approach to Investigate the Economic Impact of the COVID-19 Pandemic in Pakistan. *Sustainability*.  
<https://doi.org/https://doi.org/10.3390/su14031054>.
- Addae, E., Ackah, I., 2017. Inflation Dynamics in Pre and Post Deregulation Era in Ghana: Do Petroleum Prices Have Any Influence? *SSRN Electron. J.*  
<https://doi.org/10.2139/ssrn.2932340>.
- Agrawal, V., 2016. Empirical Study on FDI in Indian Petroleum Sector, in: 13th International Conference on Business Management 2016. pp. 294–305.
- Ahmad, A., Jha, M., 2008. Status of petroleum sector in Pakistan: A review. *Oil gas Bus.*
- Ahmad, U.S., Usman, M., Hussain, S., Jahanger, A., Abrar, M., 2022. Determinants of renewable energy sources in Pakistan: An overview. *Environ. Sci. Pollut. Res.*  
<https://doi.org/10.1007/s11356-022-18502-w>.
- Ali, A., Ahmed, M., Hassan, N., 2021. Socioeconomic impact of COVID-19 pandemic: Evidence from rural mountain community in Pakistan. *J. Public Aff.* 21.  
<https://doi.org/10.1002/pa.2355>.
- Arong, F.E., Ikechukwu, E.M., 2013. The Perception of Nigerians on the Deregulation and Privatization Moves of the Government in the Oil and Gas Industry in Nigeria. *Int. J. Public Adm. Manag. Res.* 2, 119–129.
- Asghar, R., Rehman, F., Ullah, Z., Qamar, A., Ullah, K., Iqbal, K., Aman, A., Nawaz, A.A., 2021. Electric vehicles and key adaptation challenges and prospects in Pakistan: A comprehensive review. *J. Clean. Prod.* 278, 123375.  
<https://doi.org/10.1016/j.jclepro.2020.123375>
- Bashir, U., Memon, S.B., Rizvi, S.W.H., 2011. Effectiveness of Training Need Analysis: Philosophy to Practice - A Case Study of Pakistan Petroleum Limited. *J. Manag. Sci.* 5, 125–137.
- Bhandary, R.R., Gallagher, K.S., 2022. What drives Pakistan's coal-fired power plant construction boom? Understanding the China-Pakistan Economic Corridor's energy portfolio. *World Dev. Perspect.* 25, 100396.
- Bhattacharyya, S.C., 1996. Deregulation of petroleum product prices: The case of India. *Nat. Resour. Forum* 20, 281–291.  
<https://doi.org/10.1111/j.1477-8947.1996.tb00661.x>.
- Bhutta, Z., 2020. PSO to begin import of Euro-V fuel. *The express tribune*.  
<https://tribune.com.pk/author/1360/zafar-bhutta>.
- Boleslawski, E., Decanter, G., Truant, S., Bouras, A.F., Sulaberidze, L., Oberlin, O., Pruvot, F.R., 2012. Right hepatectomy with extra-hepatic vascular division prior to transection: Intention-to-treat analysis of a standardized policy. *Hpb* 14, 688–699.  
<https://doi.org/10.1111/j.1477-2574.2012.00519.x>.
- Cleveland C., Morris, C., 2009. *Dictionary of Energy*. Elsevier Ltd, Oxford United Kingdom.  
<https://www.elsevier.com/books/dictionary-of-energy/cleveland/978-0-08-096811-7>.
- DAWN, 2018. Margins on petrol, diesel sales raised. *Daw. News*.  
URL <https://www.dawn.com/news/1416593>.
- DAWN, 2020. Lockdown begins. *Dawn news*.  
<https://www.dawn.com/news/1543321>.
- Dolge, K., Azis, R., Lund, P.D., Blumberga, D., 2021. Importance of Energy Efficiency in Manufacturing Industries for Climate and Competitiveness. *Environ. Clim. Technol.* 25, 306–317. <https://doi.org/10.2478/rtuct-2021-0022>.
- Essays, U.K., 2017. Deregulation of Downstream Oil and Gas. URL  
<https://www.ukessays.com/essays/business/benefits-of-deregulation-of-downstream-oil-and-gas-business-essay.php?vref=1>.
- Gabhane, D., Gabhane, M., 2021. "Rising prices of petrol and diesel in India since 2014: An Analytical Study ". *PalArch's J. Archaeol. Egypt/ Egyptol.* 18, 2309–2318.
- Hornby, A.S., 2001. *Oxford advanced learner's dictionary of current English*. Oxford university press.
- Iqbal, S., Bilal, A.R., Nurunnabi, M., Iqbal, W., Alfakhri, Y., Iqbal, N., 2021. It is time to control the worst: testing COVID-19 outbreak, energy consumption and CO2 emission. *Environ. Sci. Pollut. Res.* 28, 19008–19020.
- Irshad, M., Hussain, M., Qureshi, M.A., 2021. Abusive Supervision: A Catalyst for the Employee Deviance Work Behavior. *Reviews of Management Sciences*, 3(2), pp.114–130. *Rev. Manag. Sci.* III, 114–130.
- JOSHUA Olujobi, O., Michael Olujobi, O., Ufua, D., Joshua, O., Michael, O., Ufua, D.E., 2020. A critical appraisal of legal framework on deregulation of the downstream sector of the Nigerian petroleum industry. *J. Int. Manag.* 11, 252–268.
- Kalejaiye, P.O., Adebayo, K., Lawal, O., 2013. Deregulation and privatization in Nigeria: The advantages and disadvantages so far. *African J. Bus. Manag.* 7, 2403–2409.
- Khaleeq, k., 2020. Petrol pricing likely to be deregulated. *Dawn news*.  
<https://www.dawn.com/news/1561992>.
- Khan, I., 2020. Rs 7 per litre hike in petrol price on the cards. *NEWS. The News*.  
<https://www.thenews.com.pk/writer/israr-khan>.
- Liaqat, M., Ashraf, A., Nisar, S., Khursheed, A., 2022. The Impact of Oil Price Inflation on Economic Growth of Oil Importing Economies: Empirical Evidence from Pakistan 9, 167–176.  
<https://doi.org/10.13106/jafeb.2022.vol9.no1.0167>.
- Manneh, M., 2020. Retail marketing of imported petroleum products: evidence from the downstream petroleum sector of the Gambia. *Eur. J. Bus. Manag. Res.* 5, 1–8.
- Maximus, 2012. Deregulation of the downstream oil sector and challenges of national development 1999 -2012. University of Nigeria Nsukka.
- Mayorga-Alb, E., 1995. Deregulation and reform of petroleum markets from monopolies to new regulated markets. *Energy Note* 7.
- Mumtaz, M.Z., Smith, Z.A., 2021. IPO cycles in Pakistan. *Borsa Istanbul Rev.* 21, 405–417.

- Murphy, R.P., 2018. Removing the 1970s crude oil price controls: Lessons for free-market reform. *J. Priv. Enterp.* 33, 63–78.
- OGRA, 2002. Dove Medical Press Peer Review Process. URL <http://www.ogra.org.pk/>.
- Olawaiye, 2014. Subsidy Removal or Deregulation : Investment Challenge in Nigeria’s Petroleum Industry Provost College of Social and Management Sciences / Director of Academic Planning. *Am. J. Soc. Manag. Sci.* 5, 1–10.
- Olujobi, O.J., 2021. Deregulation of the downstream petroleum industry: An overview of the legal quandaries and proposal for improvement in Nigeria. *Heliyon* 7, e06848. <https://doi.org/10.1016/j.heliyon.2021.e06848>.
- Oxford, 2005. Oxford Advanced Learner’s Dictionary. Oxford University Press.
- Qasim, T.B., Ali, H., Baig, A., Khakwani, M.S., 2021. Impact of Exchange Rate and Oil Prices on Inflation in Pakistan. *Rev. Econ. Dev. Stud.* 7, 177–185.
- Rasheed, R., Rizwan, A., Javed, H., Sharif, F., Zaidi, A., 2021. Socioeconomic and environmental impacts of COVID-19 pandemic in Pakistan—an integrated analysis. *Environ. Sci. Pollut. Res.* 28, 19926–19943.
- Sreenivas, S., 2019. Fuel Pricing Policy of India : Aftereffects of Deregulation. *Int. J. Anal. Exp. modal Anal.* XI, 1678–1688.
- Srivastav, A., Neerajakshi, P., Muthalaly, K.I., Reddy, V.G.A., Deepika, M.G., Palakkeel, P., 2018. The dynamics of petroleum pricing and the impact of petroleum product prices on key sectors of the economy, in: *Proceedings of 2017 IEEE International Conference on Technological Advancements in Power and Energy: Exploring Energy Solutions for an Intelligent Power Grid, TAP Energy 2017*. pp. 1–5.
- Sun, Y., Mirza, N., Qadeer, A., Hsueh, H.P., 2021. Connectedness between oil and agricultural commodity prices during tranquil and volatile period. Is crude oil a victim indeed? *Resour. Policy* 72, 102–131.
- Tao, R., Su, C.W., Yaqoob, T., Hammal, M., 2021. Do financial and non-financial stocks hedge against lockdown in Covid-19? An event study analysis. *Econ. Res. Istraz.* 0, 1–22.
- Test, D.F., Ahmed, M., Irfan, M., Meero, A., Tariq, M., Comite, U., Aziz, A., Rahman, A., Sial, M.S., Gunnlaugsson, S.B., 2022. Bubble Identification in the Emerging Economy Fuel Price Series : Evidence from Generalized Sup Augmented. *Processes* 10, 1–18.
- Uddin, R., Shaikh, A.J., Khan, H.R., Shirazi, M.A., Rashid, A., Qazi, S.A., 2021. Renewable energy perspectives of pakistan and turkey: Current analysis and policy recommendations. *Sustain.* 13. <https://doi.org/10.3390/su13063349>.
- Wang, N., Mogi, G., 2017. Deregulation, market competition, and innovation of utilities: Evidence from Japanese electric sector. *Energy Policy* 111, 403–413.
- Yaqoob, H., Teoh, Y.H., Sher, F., Ashraf, M.U., Amjad, S., Jamil, M.A., Jamil, M.M., Mujtaba, M.A., 2021. Jatropha curcas biodiesel: A lucrative recipe for Pakistan’s energy sector. *Processes* 9, 1–36. <https://doi.org/10.3390/pr9071129>
- Yin, C., 2021. International law regulation of offshore oil and gas exploitation. *Environ. Impact Assess. Rev.* 88, 106551.
- Yusuf, A.B., Tukur, M.D., Caleb, A., Ibrahim, A., 2019. The impact of Downstream Oil Deregulation Nexus Petroleum Gross Domestic Product: The Nigerian Experience. *Int. J. Sci. Res. Publ.* 9, 524–533.
- Zafar, S., Khan, M.A., 2022. Global Oil Prices and Exchange Rate : Evidence from the Monetary Model 9, 189–201. <https://doi.org/10.13106/jafeb.2022.vol9.no1.0189>.
- Zeb, A., Haider, A., Hussain, J., Khan, M.Z., Shaheen, F. and Israr, M., 2017. Performance Evaluation of Pakistan's Oil & Gas Regulatory Authority. *J. Energy Econ. Policy* 7, 72–77.

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