

# EXPORTING IRANIAN PHARMACEUTICAL PRODUCTS TO RUSSIA'S MARKET: POTENTIALS AND BARRIERS

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The pharmaceutical market is one of the most important and lucrative industries in the trade world. The expansion of non-oil exports and shifting away from the mono-product economy and its problems (high volatility in the oil market and, consequently, the country's revenue, as well as the issue of sanctions on Iran's oil sales by the West) have made it inevitable for Iran to expand its export of pharmaceutical products. Meanwhile, the Russian Federation, for historical reasons, has a high potential to become a destination for Iran's pharmaceutical products due to the geographical proximity of the two countries and the possibility of direct shipment of goods to Russia via the Caspian Sea, as well as due to the fact that Russia is a large consuming market with the population of 145 million and high volume of pharmaceutical imports (over \$ 10.5 billion in 2018). The article analyzes the pharmaceutical export potential of Iran to the Russian Federation using the indicators of revealed comparative advantage index, cosine index and trade plan index. The findings of this study indicate the high potential of Iranian pharmaceutical products for export to the Russian consuming market and the lack of utilization and the neglect of the Iranian pharmaceutical manufacturers and exporters from the Russian market. As policy implications, the authors recommend making pharmaceutical products a priority for export to the Russian market, which will lead to more efficient use of Iran's productive potential.

**Keywords:** export, pharmaceutical products, Russian market, revealed comparative advantage, cosine index, trade plan index.

## 1. Introduction

Iran has a long history of political and economic relations with Russia. From the ages of trading Russian fur for Iranian fine saffron back in Safavid Dynasty (Barazesh, 2012, p. 283), both Iranians and Russians have enjoyed the vicinity of each other trading goods for Trade. Being able to trade through both sea and land (naval fleet crossing the Caspian Sea from Anzali port to Astrakhan port in Russia and routes through Caucasus area, linking the nations by land), both parties have discovered the economical mutual benefit of trading with each other, long time ago.

While the two nations appear to have strong political ties, talking about trading, we're not witnessing that kind of coherence in this regard. As of the year 2018, things are quite the same; indeed, the shape of this relation has changed in many ways. According to Trade Map, the latest statistics available, which belong to the year 2018, suggest that a heavy trade imbalance exists between the two countries. In 2018, Russia has exported a nearly 1.2\$ billion worth of products to the Islamic Republic of Iran, while the vice versa figures are around 280\$ million. The numbers have dropped for Russia compared to the previous year, in which about 1.3\$ billions worth of products was imported by Iran and the same has happened for Iran with about 285\$ million worth of products exported to the Russian Federation in 2017; this indicates an overall decrease in the bilateral trade between the two countries.

One of the solutions to improve the trade flows between two countries is expansion of non-oil exporting of Iran to Russia, particularly pharmaceutical products in which Iran has a big and significant production potential. Generally, pharmaceutical products are classified under code 30 and include groups 3001 to 3006 in Harmonized System (HS) of commodities classification.

In regards to pharmaceutical products, Russia is the fifth-largest importer of pharmaceuticals from Iran, importing \$ 18.8 million worth of medicinal products from Iran in 2017, down to less than \$ 7 million the following year. Exports of Iranian pharmaceutical products to Russia have practically boomed since 2012, rising from \$ 51,000 in 2011 to over \$ 12 million in 2012.

**Table 1**  
Total Export of Commodity Group Code 3004 from Iran to Russia, USD

Year	Export value	Year	Export value
2001	0	2010	0
2002	43,000	2011	51,000
2003	86,000	2012	12,353,000
2004	110,000	2013	15,322,000
2005	79,000	2014	28,561,000
2006	90,000	2015	518,000
2007	0	2016	17,680,000
2008	5,000	2017	18,824,000
2009	0	2018	6,867,000

Source: Authors' compilation from Trademap.org

According to the data provided by ICCIMA<sup>1</sup> and comparing it with Trademap statistics, commodities under the code 3004 are the main export of Iranian pharmaceutical products to Russia. If we take a look at Iran's total export of pharmaceuticals and examine six groups of commodities in this collection, we will find out why. Since 2001, the major export of Iranian pharmaceutical products has been the Commodity Code 3004. Then the commodity group code 3002 with an export volume averaging one-third to one-quarter of commodity group 3004. Other commodity groups also account for a very small share of the export of Iranian pharmaceutical products compared to the two already-mentioned commodity groups, with exports of Group 3003 products reaching to only \$ 10 million over 7 years out of the 18 studied years. Other commodity groups have not yet reached \$ 1 million (The only exception is Group 3005 in 2017).

In the case of the Commodity Group 3006 (also known as specialized pharmaceutical products (OEC website)), it can be deduced that the products of this subgroup, due to the need of high technology industries for their production, along with their very high hygiene requirements, these type of products (since they are in direct contact with internal organs and may cause irreparable damage), are not a part of Iran's pharmaceutical exports to the Russian market, and with the exception of a minor case reported by the Iranian Customs in 2010, Iran has not made any significant exports to Russia in this regard.

Iran's failure to expand the export of commodity group No. 3002 to Russia may be due to their high level of health sensitivity. Also, in the field of antisera, and other blood derivatives and immunogenic products, vaccines, toxins and the cultivation of organisms can also be subject to technical restrictions on their domestic production, as well as the lack of the necessary certificates for importing them to the Russian market.

According to the data provided by Iran Customs, only in the years 2001 and 2008, a limited amount of products in the 3003 group were exported to Russia, indicating the inattention of Iranian pharmaceutical companies and exporters to this category of products. Iran also has not had significant exports to Russia in the field of Commodity Group 3001, and for the past 18 years, Iran Customs has recorded near-zero statistics for this group.

According to the importance of non-oil export expansion of Iran, leading to a less dependency to oil exporting revenues, and the fantastic market of Russia, this paper seeks to analyze the potentials of increasing the exports of pharmaceutical products as non-oil and non-sanctioned products, which are of great importance to Iran, and identifies untapped potentials as well as the various obstacles in this trade.

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Despite earlier studies (e.g. see Rasoulinezhad (2016), Haghayegh and Hassangholipoor (2017), Koolae and Abedi (2018); Karami et al. (2019)) about Iran-Russia trade flows, there has not been any serious academic attempt focusing on exporting pharmaceutical products to the vast market of Russia. Hence, it clarifies our research novelty and shows the literature gap that will be filled in by our research.

**Table 2**  
Total Export of Commodity Group Code 3003 from Iran to Russia, USD

Year	Export value	Year	Export value
2001	47,000	2010	0
2002	0	2011	0
2003	0	2012	0
2004	0	2013	0
2005	0	2014	0
2006	0	2015	0
2007	0	2016	0
2008	490,000	2017	0
2009	0	2018	0

Source: Authors' compilation from Trademap.org

The rest of the paper is structured as follows: Section 2 discusses the existing literature review. Next section explains research methodology. Section 4 represents empirical findings while the last Section concludes the paper with some policy implications.

## 2. Literature Review

The related existing literature can be divided into three stands. First one concentrates on the characteristics of pharmaceutical commodities trade in the world. Second strand focuses on pharmaceutical trade in Iran and Russia, while the third strand of literature includes the studies about trade patterns between Iran and Russia.

The first strand of literature includes studies about the specifications of pharmaceutical commodities trade in different countries. Micklitz (1988) argued about possibilities of the European nations to participate in the WHO regulations. He concluded that the European pharmaceutical industry needs to adopt with the WHO principles, particularly in order to export of pharmaceutical commodities to third world countries. Chaudhry and Dacin (1997) studied the pharmaceutical industry in the European Union. The results revealed that due to the changing Trade environment in the EU, the pharmaceutical industry of this trade bloc is trying to expand their market to other regions and countries. Palumbo et al. (2007) focused on policy implications of drug importation to the US. The research highlighted that policy makers in the US are under heavy pressure to address the high cost of branded drugs in this country. Bert (2008) investigated parallel trade of pharmaceuticals (PPT) over 2006–2007. He found out that pharmaceuticals trade in developed nations is a ubiquitous phenomenon and also the global growth of health care expenditures has improved the flows of pharmaceutical trade among coun-

tries. Chadha (2009) focused on neo-technology theories of trade in Indian pharmaceuticals' trade. The findings showed that technology has a positive impact on exports. Settanni et al. (2017) reviewed pharmaceutical supply chain models. They found out that production level of these commodities is important in the supply chain rather than patient consumption pattern and healthcare outcomes. Garattini and Padula (2018) investigated competition in pharmaceuticals during the life cycle of a drug based on the European Union regulations. They expressed that a comprehensive regulatory system to favor more fairly competition for merit goods like drugs.

The second strand of literature concentrates on pharmaceutical commodities trade in Iran or Russia with the world. In regards to Iran, Zargarzadeh et al. (2008) used a cross-sectional study to analyze self-medication in Isfahan. The major results proved that because of high self-medication of Iranian people, the consumption of pharmaceutical commodities is high in this country and it would be a big challenge for Iran's pharmaceutical exporting to other countries. Mahmoudzadeh et al. (2012) investigated the competition of Iran in drug export over the period of 2002–2010. The findings revealed that Iranian drug export is on an upward trend and this country has a big potential to expand its exporting line of pharmaceutical goods to other nations. Nessabian and Gholamoseini (2012) tried to compare the Iran's medical plants exporting comparative advantage using the Revealed Symmetric Comparative Advantage. They proved that despite the existence of comparative advantage of Iran in export of medicinal plants, its export competitiveness trend is declining over time. Shahbazi and Asadi (2014) studied the relationship between exchange rate and imports of medicines in Iran over 1977–2010. They found out that due to the absence of pharmaceutical industries' protections against sharp increase in exchange rate the import volume of pharmaceutical products of Iran has decreased significantly. Emamgholipour and Agheli (2019) studied the structure of pharmaceutical industry in this country over 1992–2016. They found out pharmaceutical producers, importers and distributors in Iran's pharmaceutical market have made a monopolistic competition market. However, importers play a significant role in drug's prices in Iran. In the case of Russia, Tannoury and Attieh (2017) investigated the pharmaceutical markets under the effects of Russia and other BRICS members. They found out that pharmaceutical companies have a unique attention to the market of BRICS because of fast rise in the incidence of non communicable diseases in these emerging countries. Holownia-Voloskova et al. (2018) reviewed drug policy in Russian healthcare system. The major results showed that the healthcare system in this country is complicated and requires development to carry out import substitution policy efficiently.

Finally, the third strand of literature contains studies about bilateral trade pattern between Iran and Russia. Rasoulinezhad (2016) tried to find the effects of sanctions and oil price shocks on Iran-Russia bilateral trade over the period of 1994–2013. He found out the negative relationship between financial, non-financial sanctions and oil price shocks with the Iran-Russia trade. Haghayegh and Hassangholipour (2017) argued that bilateral trade between Iran and Russia can be improved by implication of non-oil trading strategy which is vital for both countries due to the regional tensions and economic pressures under sanctions. Koolae and Abedi (2018) reviewed Iran-Russia bilateral trade relations since the USSR collapse. They highlighted that political interests of Russia strongly impacts on Iran-Russia trade flows, while Iranian exporters have been trying to have a larger market share in Russia. Karami et al. (2019) studied the characteristics of trade pattern between these two countries. The results proved that under the western sanctions these two countries have temporary economic and trade tie to combat negative effects of sanctions.

Overall, the existing literature proves that bilateral trade between Iran and Russia is important and needs to be improved. Furthermore, there has not been an academic work focusing on pharmaceutical commodities export of Iran to Russian market. Therefore, this literature gap will be filled in by our research.

### 3. Research Methodology

The aim of this paper is to find out export potential and comparative advantage of Iran to deal in trade with Russia with pharmaceutical products. To this end, we carry out three popular indexes, namely Cosine index, NRCA (Normalized Revealed Comparative Advantage) index and Trade Plan index for the data of pharmaceutical trade over the period of 2001–2018. The applied indexes are explained as follows:

#### Cosine Index:

This index proposed by Allen (1956: 135) is an appropriate measure to evaluate the complementarity of trade between countries. The cosine index that represents the angle between the exports of pharmaceutical commodities of Iran (country *i*) with the imports of pharmaceutical commodities of Russia (country *j*) can be estimated by the following equation:

$$\text{Cos}_{ij} = \frac{e_i \cdot m_j}{[e_i][m_j]} \rightarrow \text{Cos}_{ij} = \frac{\sum E_{ik} \cdot M_{jk}}{\sqrt{\sum E_{ik}^2 \cdot \sum M_{jk}^2}}$$

$K = 1, 2, 3, \dots, n-1, n.$

According to the above-mentioned formula, if the export commodity composition of country *i* is identical to country *j*, it shows complete completion, meaning the export patterns of the exporting and importing countries are exactly the same; and if for all *k*,  $E_{ik}$  or  $M_{jk}$  or both are zero, it is clear that trading from country *i* to country *j* is not possible, and the vectors of  $E_i$  and  $M_j$  are perpendicular, thus  $\text{Cos}_{ij} = 0$  and there is no level of trade completion. Therefore, the cosine between two vectors can be placed between two critical values of zero and one. The similarity standard

(cosine) only provides the expected intensity of cross-border trade flows from the exporting country *i* to the importing country *j* based on existing trade patterns. This standard does not recognize the trade potential assessment. In other words, the trade of the two countries may be quite similar, although it is unclear whether they actually did trade with each other or not. In addition, when the similarities are compared, neither the reason for this situation nor the behavior that may mutually occur is explained (Rahmani & Abedin, 2008: 159–158).

**The Normalized Revealed Comparative Advantage Index**

The NRCA index measures the degree of deviation of a country’s actual export from its comparative-advantage-neutral level in terms of its relative scale with respect to the world export market and thus, provides a proper indication of the underlying comparative advantage.

The key to the derivation of the NRCA index is the comparative-advantage-neutral level (point). The existing RCA measures indeed have a consensus on this situation (Yu et al. 2008: 267–268; Bojnec and Ferto, 2014: 6156). In the situation of a comparative-advantage-neutral, country *i*’s export of commodity *j* (or  $E^{ij}$ ), would equal  $E_i E_j / E$ . Country *i*’s actual export of commodity *j* in the real terms,  $E_{ij}$ , would normally differ from  $E^{ij}$ ; and the difference can be stated as:

$$\Delta E_j^i = E_j^i - E^{ij} = E_j^i - (E^i E_j) / E.$$

Normalizing  $\Delta E_{ij}$  by the world export market (*E*), we obtain the NRCA index as follows;

$$NRCA = \Delta E_{ij} / E = E_{ij} / E - E_i E_j / E E.$$

**Trade Plan Index**

UNCTAD (United Nations Conference on Trade and Development) International Trade Center uses the Trade Plan to analyze the exporting of different commodity groups. A Trade plan compares export growth with global demand growth. More precisely, the growth of export of product *i* by a country ( $\delta_{ij}$ ) is compared with the growth of world imports of the same product (*ri*) and total growth of the whole world

imports (*r*).

A Trade plan is divided into four different quarters, according to which, the exported products are categorized into the groups of winners (2 groups) or losers (2 groups) based on their placement in the growing markets or in declining markets.

The characteristics of each quadrant are as follows.

**4. Empirical findings**

In this section, the empirical findings of estimating the Cosine index, NRCA index and Trade Plan index are represented as follows:

**Cosine Index Results**

According to the results of the Cosine index for Iran’s pharmaceutical exports and pharmaceutical Russia’s imports, there is a high degree of similarity between these two nations in 3 years among the period of 2001 to 2018. It has a maximum of 0.8511 and 0.8710 in 2001 and 2018, respectively, while its minimum were in 2017. The main reasons of its highest amount in 2001 and 2018 is the visiting of Russia by Iranian President Mr. Khatami in 2001 which led to expand trade ties in non-oil commodities such as pharmaceutical ones. In addition, US withdrawal from JCPOA (Joint Comprehensive Plan of Actions) and returning sanctions against Iran caused the trade integration of this country with Russia to lower the negative effects of the imposed sanctions (Sajedi and Sajedi (2019: 141) expressed that the US exit from JCPOA has brought various negative signals for Iranian macroeconomic variables).

Based on the results of the Cosine index calculation, it can be concluded that the exports of pharmaceutical products by Iran with the same imported products by Russia have an average level of similarity which provides a good opportunity for exports expansion.

**NRCA Index Results**

According to the normalized revealed comparative advantage index calculations (Fig 1) for Iran’s pharmaceutical exports, the country has a good relative advantage in exporting the commodity group

Table 3

Features of the quarters in Trade Plan Index (BPI)

1 <sup>st</sup> quarter	Winners in growing markets	$\delta_{ij} > ri > r$
2 <sup>nd</sup> quarter	Losers in growing markets	$\delta_{ij} < ri, ri > r$
3 <sup>rd</sup> quarter	Losers in declining markets	$\delta_{ij} < ri < r$
4 <sup>th</sup> quarter	Winners in declining markets	$\delta_{ij} > ri, ri < r$

Source: Authors’ compilation

Table 4

Cosine Index results

2001	2002	2003	2004	2005	2006	2007	2008	2009
0.8511	0.7175	0.6774	0.6207	0.5593	0.5519	0.5507	0.5537	0.5492
2010	2011	2012	2013	2014	2015	2016	2017	2018
0.5454	0.5457	0.5528	0.5464	0.5470	0.5484	0.5559	0.5420	0.8710

Source: Authors’ calculation based on raw data of Trademap

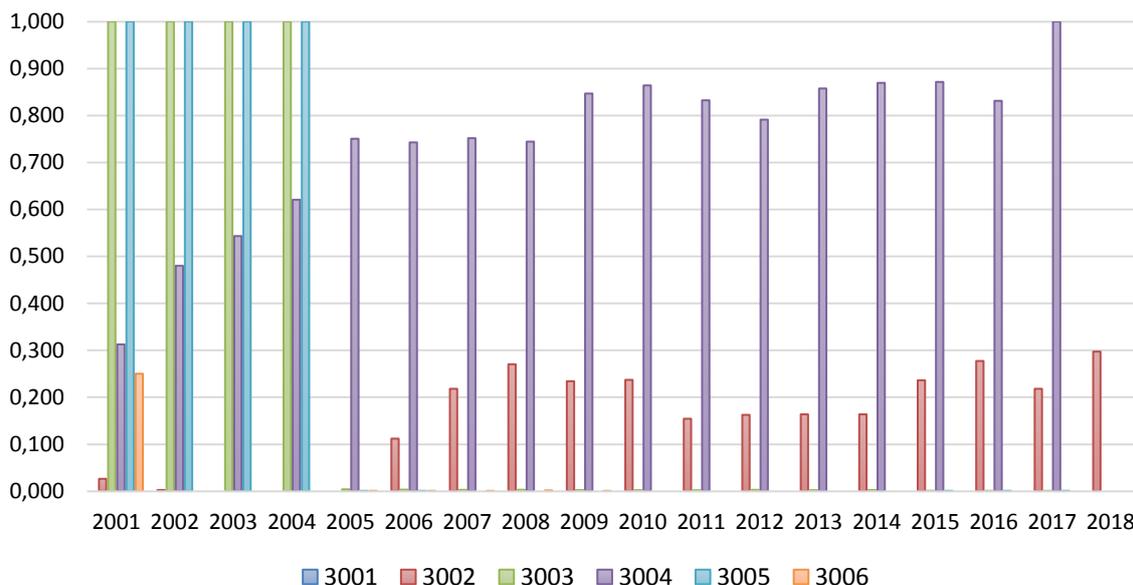


Fig 1. NRCA Index results  
Source: Authors' calculation based on raw data of Trademap

3004 and has been in the range of 0.7 to 0.9 in this regard since 2005. But the actual amount of exports of this commodity group to Russia, except in 2014, has been less than \$ 2 million a year in all the years studied. The sharp drop in the exports of these products to Russia in 2018 is the result of the ban on export of pharmaceutical products from Iran that was implemented on that year. According to the calculations of this index, Iran does not have a significant advantage in exporting other pharmaceutical commodity groups and the trade statistics will confirm this statement as well.

**Trade Plan Index Results**

Based on the results of Trade Plan Index, reported in Table 4, Iran is placed in the 1st quarter (winners in the growing markets) in three commodity groups (3002, 3004 and 3006), and the export growth of these commodity groups has been higher than the global growth in imports for the same commodities; These commodities have been exported to markets with an increasing demand for imports. Iran has been placed in the second quarter (losers in growing markets) in the table of Trade plan for exporting commodity groups 3001 and 3003, meaning that the export growth of these two commodity groups was lower than the global growth of importing these commodities and these commodity groups have been exported to markets where there is an increasing import demand for these commodities. The index puts Iran's export of commodity group 3005 in the fourth quarter of the Trade plan (winners in declining markets), which means Iran's export growth regarding this commodity group is higher than that of its global import growth, but the exports were made to the markets, where the import demand is falling.

Table 5

**Trade plan Index results**

1st quarter	3002-3004-3006	$\delta ij > ri > r$
2nd quarter	3001-3003	$\delta ij < ri, ri > r$
3rd quarter		$\delta ij < ri < r$
4th quarter	3005	$\delta ij > ri, ri < r$

Source: Authors' calculation based on raw data of Trademap

**5. Discussion**

The empirical findings revealed that Iran could not use all the existing potential of Russian pharmaceutical market over the last decades. One of the main obstacles of exporting of pharmaceutical products to the vast market of Russia is “domestic Policies”. Domestic policies may occasionally lead to negative growth in exports of pharmaceuticals, such as the ban set on the exports of pharmaceutical products introduced in 2018 following the Iranian government's attempts to stop the sharp value loss of Iranian currency (Rial), resulting in a heavy decrease of country's export of pharmaceutical products to Russia. Another main reason is export requirements and documentations. The long process of obtaining export licenses for pharmaceuticals and the load of restrictions set on exporters as a result of export bans have made a direct negative effect on Iran's pharmaceutical exports to Russia.

Drug Manufacturing Issues is another limitation to expand pharmaceutical exports from Iran to Russia. Lack of effective government support for pharmacists to expand their drug exports and a shortage of unprocessed materials for pharmaceutical production, due to low value of national currency, has reduced the production ability and export capacity of Iranian pharmacists

and exporters. Moreover, absence of industry-university collaboration may be considered as another reason of limitation to expand pharmaceutical exports from Iran to Russia. Expanding knowledge-based companies and linking the country's research centers to the manufacturing sectors of the country's pharmaceutical industry will expand Iran's commodity exports and increase its competing abilities to actively participate in the Russian pharmaceutical imports market. Economic Crisis is another export limitation for Iran to Russia. The deterioration of the economic situation in Iran, especially since 2018, following the unprecedented fall of the national currency value, has deprived Iranian manufacturers from the necessary stability for a cost-effective production of pharmaceuticals and caused severe price volatility regarding domestic and foreign sales. This has made a detrimental effect on the status of Iranian pharmaceutical exports to Russia.

The above mentioned factors can be considered as internal ones. Besides, there are some regional factors limiting pharmaceutical exporting of Iran to Russia. One of the main regional factors is political tensions. Political relations and tensions between countries in the region occasionally lead to the disruption of transit of goods and services, borders closings, imposing heavy tariffs or implementing non-tariff barriers (requiring various certificates, permissions and etc.) or a direct ban on the import of goods from a specific country may prevent exports from Iran to Russia. Banking and Payment Issues are other regional factors influencing on pharmaceutical exporting volume from Iran to Russia. The absence of a sustainable connection of the Iranian banking network to the Russian banking system via the SWIFT network due to the western sanctions, as well as the inadequate infrastructures is another a barrier. An example is Mir Trade Bank's defective activities and its failure to obtain the desired financial results is the proof to these issues.

International Factors can play a limiting role to export pharmaceutical products from Iran to Russia. Sanctions by western countries that restrict Iran's access to international markets and prevent it from conducting financial transactions through international banking system with its trading partners (in this case Russia). Iranian manufacturers are prohibited from exchanging knowledge, information and services with international scientific institutions and manufacturers of advanced pharmaceutical products. In addition, global competition is another international factor, expressing that export expansion of Iranian pharmaceutical products to the Russian market will certainly face a heavy competition with top global manufacturers and exporters of these products. For example, Germany exported more than \$ 2.2 billion to Russia in 2018, compared with the total \$ 105 million pharmaceutical exports of Iran in that year, the huge difference between the top global exporters and the Iranian compa-

nies. According to 2018 statistics, Iran has been ranked 45th among the exporters of pharmaceuticals to Russia, and this country should definitely be able to produce quality pharmaceuticals approved by the relevant Russian authorities and at affordable prices in order to increase its amount of exports.

#### 6. Concluding remarks

This study sought to investigate the characteristics of pharmaceutical exporting of Iran to Russia over 2001 to 2018. To this end, the authors employed three trade indexes of Cosine index, NRCA and Trade Plan Index (BPI) to evaluate the potential of Iran in exporting pharmaceutical commodities (HS codes of 3001 to 3006). According to the results of the calculations of Cosine index, in 3 years of the total studied years, there is a high degree of similarity between Russian pharmaceutical imports and Iran's pharmaceutical exports and in 2 of those years, there is a high degree of similarity. According to the results of the Cosine Index, it can be deduced that the exported pharmaceutical goods by Iran have continuously been moderately similar to the Russian imported pharmaceutical goods. Furthermore, the results of the calculations of Normalized Comparative Advantage Index revealed that Iran has had an advantage in the range of 0.7 to 0.9 (with number 1 as the maximum and 0 as the minimum) in exporting pharmaceutical goods to Russia from 2005 to 2017, which can be counted as a very high advantage. This advantage, however, has sharply declined in 2018, as a direct result of Iran's ban on drug exports during that year. Iran has the most relative advantage in exporting commodity groups 3004 and 3002 to Russia, respectively. According to statistics, this advantage has not been practically used by Iranian exporters. In addition, the major findings of the calculations of Trade Plan Index indicated that Iran is placed in the first quarter of the Trade plan for three commodity groups (3002, 3004 and 3006) among the winners in the growing markets. Iran is placed in the second quarter of the table (losers in the growing markets) regarding the export of commodity groups 3001 and 3003 and the results of this index for the commodity group 3005 put Iran in the fourth quarter of the Trade plans (winners in the declining markets). Based on the findings, it can be concluded that Iran faces a vast number of obstacles (i.e. internal, regional and international factors) when it comes to export expansion of its pharmaceutical products to the Russian market.

All in all, the authors would like to declare that this research suffers from different limitations like lack of available data of pharmaceutical exporting companies in Iran. Therefore, we recommend the future studies to investigate the opinions of pharmaceutical exporting companies about the trade obstacles between Iran and Russia. Furthermore, using other indexes such as Trade Intensity and Balassa index is suggested to have more reliable results.

### References

1. Allen R.G. *Mathematical Economics*. Macmillan: London, 1956.
2. Barazesh A.H. *Political relationship between Iran and the world*. Amirkabir Publications. Tehran. 2012.
3. Bert T. Parallel Trade of Pharmaceuticals: A Review of Legal, Economic, and Political Aspects. *Value in Health*, 2008, 11 (5): 996–1005. DOI: 10.1111/j.1524-4733.2008.00339.x
4. Bojnec S., and Ferto I. Export competitiveness of dairy products on global markets: The case of the European Union countries. *Journal of Dairy Science*, 2014, 97 (10): 6151–6163. DOI: 10.3168/jds.2013-7711
5. Chadha A. Product Cycles, Innovation, and Exports: A Study of Indian Pharmaceuticals. *World Development*. 2009, 37 (9): 1478–1483. DOI: 10.1016/j.worlddev.2009.01.002
6. Chaudhry P., and Dacin P. Strategic planning in a regulated trade bloc: The pharmaceutical industry in the European Union. *European Management Journal*. 1997, 15 (6): 686–697. DOI: 10.1016/S0263-2373(97)00052-2
7. Emamgholipour S., and Aghel, L. *International Journal of Pharmaceutical and Healthcare Marketing*. 2019, 13 (1): 101–115.
8. Garattini L., and Padula A. Competition in pharmaceuticals: more product – than price-oriented? *The European Journal of Health Economics*. 2018, 19: 1–4. DOI: 10.1007/s10198-017-0932-4
9. Haghayegh R. and Hassangholipoor T. Iran-Russia Commercial Relations; A Strategy for Non-Oil Trading Development. *International Relations Research*. 2017, 1 (27): 281 – 312.
10. Holownia-Voloskova M., Vorobiev P.A., Grinin M., Davydovskaya M., Ermolaeva, T., and Kokushkin, K. Drug Policy in the Russian Federation. *Value in Health Regional Issues*. 2018, 16: 106–111. DOI: 10.1016/j.vhri.2018.09.001
11. Karami J., Rasoulinezhad E., and Shokri Sh. *Discussion on Russia-Iran Bilateral Trade in the Modern Era with emphasis on Russia's Economy*. 2019, 3 (1): 161–198.
12. Koolae E., and Abedi A. Developments of Iran-Russia Relations, 1992–2016. *Studies of International Relations Journal*. 2018, 10 (40): 135–164.
13. Mahmoudzadeh M., Karimi M., and Yusef H. An analysis of competition of Iran in drug export. *Biquarterly Journal of Economic Research*. 2012, 4 (7): 55–78.
14. Miclitz W. EC regulation of the export of dangerous pharmaceuticals to Third World countries: Some prospects. *Journal of Consumer policy*. 1988, 11: 29–53. DOI: 10.1007/bf00411519
15. Nessabian Sh., and Gholamhoseini T. Comparison of Iran's Medicinal Plants Exporting Comparative Advantage With other Exporting Countries (Case study: Fennel, Badian, Anise and Corian). *Quarterly Journal of Economical Modeling*. 2012, 6 (20): 75–92.
16. Palumbo F.B., Mullins C.D., Slagle A.F., and Rizer J. Policy implications of drug importation. *Clinical Therapeutics*. 2007, 29 (12): 2758–2767. DOI: 10.1016/j.clinthera.2007.12.029
17. Rahhmani M., and Abedin, M.R. Assessment of the possibility of Iran's export development with the selected trading partners. *Iranian Journal of Trade Studies*. 2008, 12 (46): 145–177.
18. Rasoulinezhad E. Investigation of sanctions and oil price effects on the Iran-Russia trade by using the gravity model. *Vestnik SPBGU*. 2016, 5 (2): 68–84. DOI: 10.21638/11701/spbu05.2016.204
19. Sajedi A., and Sajedi S. America's Exit from Joint Comprehensive Plan of Action and Turbulence in Iran's economy. *Studies of International Relations Journal*. 2019, 12 (46): 123–155.
20. Settanni E., Seosamh Harrington T., and Srail J.S. Pharmaceutical supply chain models: A synthesis from a systems view of operations research. *Operations Research Perspectives*. 2017, 4: 74–95. DOI: 10.1016/j.orp.2017.05.002
21. Shahbazi K., and Asadi F. Impact of exchange rate on imports of medicines and medical equipment. *The Journal of Economic Policy*. 2014, 6 (11): 35–54.
22. Tannoury M., and Attieh Z. The Influence of Emerging Markets on the Pharmaceutical Industry. *Current Therapeutic Research*. 2017, 86: 19–22. DOI: 10.1016/j.curtheres.2017.04.005
23. Yu R., Cai J., and Leung P. The normalized revealed comparative advantage index. *The Annals of Regional Science*, 2008, 43: 267–282. DOI: 10.1007/s00168-008-0213-3
24. Zargarzadeh A., Minaeiyan M., and Torabi A. Prescription and nonprescription drug use in Isfahan, Iran: An observational, cross-sectional study. *Current Therapeutic Research*. 2008, 69 (1): 76–87. DOI: 10.1016/j.curtheres.2008.02.002

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## ЭКСПОРТ ИРАНСКОЙ ФАРМАЦЕВТИЧЕСКОЙ ПРОДУКЦИИ НА РОССИЙСКИЙ РЫНОК: ПОТЕНЦИАЛЫ И БАРЬЕРЫ

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Фармацевтический рынок – одна из важнейших отраслей мировой торговли. Расширение нефтегазового экспорта и уход от монопродуктовой экономики и связанных с ней проблем (высокая волатильность на рынке нефти и, как следствие, доходов страны, а также вопрос о западных санкциях в отношении продажи нефти Ирана) сделали неизбежно для Ирана расширение экспорта фармацевтической продукции. Между тем, Российская Федерация по историческим причинам имеет высокий потенциал стать местом назначения иранской фармацевтической продукции из-за географической близости двух стран и возможности прямых поставок товаров в Россию через Каспийское море. Россия считается крупным рынком-потребителем с населением 145 миллионов человек и большим объемом импорта фармацевтической продукции (более 10,5 миллиардов долларов в 2018 году). В статье анализируется фармацевтический экспортный потенциал Ирана в Российскую Федерацию с использованием показателей «Индекс выявленных сравнительных преимуществ», «Индекс косинуса» и «Индекс торгового плана». Результаты указывают на высокий потенциал иранских фармацевтических продуктов для экспорта на российский потребительский рынок, а также на недостаточное использование и пренебрежение иранскими фармацевтическими производителями и экспортерами на российском рынке. В качестве последствий для политики авторы рекомендуют сделать фармацевтическую продукцию приоритетной для экспорта на российский рынок, что приведет к более эффективному использованию производственного потенциала Ирана.

**Ключевые слова:** экспорт; фармацевтическая продукция; российский рынок; выявленные сравнительные преимущества; индекс косинуса; индекс торгового плана.

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