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# THE SUEZ CANAL AS A MARITIME TRADE STRATEGIC POINT AND ITS IMPACT UPON THE ADRIATIC PORTS

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*This paper investigates and analyzes the strategic role of the Suez Canal in the development of international maritime trade. The development of international trade by selected years in the period from 1970 to 2021 is analyzed, in particular the state of the world merchant fleet by the ship type in recent years. Among other things, this paper examines and analysis the turnover of ships and cargoes through the Suez Canal in the last nine years. Following the basic idea and the possibility of connecting Europe and Asia through the Suez Canal, the possibility of developing and functioning of the main logistics strategies was realized, that represent the basis for successful international trade and transport logistics of today. As part of the impact of the Suez Canal on maritime transport, special attention is paid to the impact of the Suez Canal on the ports of the northern Adriatic, which are well sheltered in the highly indented European mainland from the south and have thus ensured high competitiveness in Europe and the world. One of the main goals of this paper is to emphasize the fact that the Suez Canal and the gravitational hinterland of the northern Adriatic ports with their land traffic routes are the key elements in determining the development and operation of the northern Adriatic ports.*

**Keywords:** *Suez Canal, maritime trade, northern Adriatic ports, gravitational hinterland.*

## 1. Introduction

Owing to the great importance of the Suez Canal for international trade and maritime transport, as well as the geopolitical significance of Suez, constant research and analyses of all the elements that make this complex system need to be carried out.

The main goal of this paper is to point out the construction and maintenance of the Suez Canal and especially the constant growth of international maritime trade, which requires the shortest and most favourable route from production to consumption. The paper pays special attention to the transit of ships and cargoes through the Suez Canal.

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Apart from the global impact of the Suez Canal on international trade and port development, special attention is paid to the impact of the Suez Canal on the development and operation of the northern Adriatic ports of Rijeka, Koper and Trieste. The paper consists of five interconnected parts that form a well-rounded whole. The paper uses common scientific methods as well as the appropriate literature and other sources that cover the complex area of the topic.

Works and books by national and international authors deal with the subject of the Suez Canal. As part of the Maritime Geography of the World and other works, national authors at maritime higher educational institutions pay attention and write works on the subject of the Suez Canal. Significant international scientific journals in the field of shipping and marketing deal with research and analysis of the topics related with the Suez Canal. Part of such works is listed in the reference literature at the end of this paper.

## 2. International maritime trade in recent years

International maritime trade is closely linked to the capacity and transit of goods through the Suez Canal. Both strategically and operationally, the Suez Canal is a very important transport and logistics point that serves as a regulator of the quantity and dynamics of goods moving on the route Europe - Asia and vice versa.

Before we start talking about the movement of goods through the Suez Canal, it is interesting to see the development of the international maritime trade around the world. It is especially important to analyze the quantities and types of cargo in the last 50 years by selected years in that period. The total quantity and type of goods in the international maritime trade are displayed in Table 1.

Analyzing the data from Table 1 according to the selected years in the period 1970 - 2021, one can conclude they show a steady growth of total international maritime trade.

For easy reference, it can be stated that the total international maritime trade in 1970 amounted to 2.6 billion tons. The total international maritime trade in 2010 amounted to 8.4 billion tons (percentage of growth is 222,76%). In 2015 about 10 billion tons (percentage of growth is 284,76%. As soon as in 2021, the total international maritime trade amounted to around 11 billion tons. Percentage of growth 2021. compared to 1970. is 321,68%.

Table 1 Development of international maritime trade, selected years (Milion tons loaded)

| Year | Tanker trader | Main bulk | Other dry cargo | Total (all cargo) |
|---|---|---|---|---|
| 1970 | 1 440 | 448 | 717 | 2 605 |
| 1980 | 1 871 | 608 | 1 225 | 3 704 |
| 1990 | 1 755 | 988 | 1 265 | 4 008 |
| 2000 | 2 163 | 1 186 | 2 635 | 5 984 |
| 2005 | 2 422 | 1 579 | 3 108 | 7 109 |
| 2006 | 2 698 | 1 676 | 3 328 | 7 702 |
| 2007 | 2 747 | 1 811 | 3 478 | 8 036 |

| Year | Tanker trader | Main bulk | Other dry cargo | Total (all cargo) |
|---|---|---|---|---|
| 2008 | 2 742 | 1 911 | 3 578 | 8 231 |
| 2009 | 2 641 | 1 998 | 3 218 | 7 857 |
| 2010 | 2 752 | 2 232 | 3 423 | 8 408 |
| 2011 | 2 785 | 2 364 | 3 626 | 8 775 |
| 2012 | 2 840 | 2 564 | 3 791 | 9 195 |
| 2013 | 2 828 | 2 734 | 3 951 | 9 513 |
| 2014 | 2 852 | 2 964 | 4 054 | 9 842 |
| 2015 | 2 932 | 2 930 | 4 161 | 10 023 |
| 2016 | 3 058 | 3 009 | 4 228 | 10 295 |
| 2017 | 3 146 | 3 151 | 4 419 | 10 716 |
| 2018 | 3 201 | 3 215 | 4 690 | 11 071 |
| 2019 | 3 163 | 3 218 | 4 682 | 11 076 |
| 2020 | 2 918 | 3 181 | 4 549 | 10 648 |
| 2021 | 2 952 | 3 272 | 4 761 | 10 985 |

Source: Review of Maritime Transport (2022). UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, p. 3.

Apart from the total international maritime trade in the observed period, there is shown a steady growth of all the groups of main cargoes, such as tanker trade, main bulk cargoes and general cargoes.

In accordance with the constant development of international maritime trade in the last 50 years, and bearing in mind the constant growth of certain types of goods, the important fact is that the total capacity and type of world's merchant fleet or maritime economy is followed by the growth of international maritime trade.

For a better insight and easy reference, data are presented in Table 2 on the world fleet by principal types of ships in the period 2020-2021.

As can be seen from Table 2, the development of international maritime trade and the world merchant fleet are constantly correlated, which is especially true for the main types of ships related to the structure of maritime trade. The total amount of the world fleet is significantly affected by the Suez Canal, as significant disturbances around the Suez Canal lead to an increase or decrease in the total world fleet. Decreases was caused by wars that affect the safety of navigation through the Suez Canal, and disruption due to ships running aground.

Thus, according to Table 2, the total world fleet amounted to 2 billion and 072 million DWT in 2020, and in 2021 the total world fleet amounted to 2 billion and 135 million DWT.

The largest amount of DWT by the ship type was related to Bulk Carriers 43%, tankers 29%, container ships 13%, and general cargo carriers 4%. The remaining percentage referred to other various types of ships.

Table 2 World fleet by principal vessel type, 2020 – 2021 (Thousand dead-weight tons and percentage)

| Pricipal types | 2020 | 2021 | Percentage change 2021 over 2020 |
|---|---|---|---|
| Bulk carriers | 879 725 **42,47**% | 913 032 **42,77** % | **3.79%** |
| Oil tankers | 601 342 **29,03**% | 619 148 **29**% | **2.96%** |
| Container ships | 274 973 **3,27**% | 281 784 **13,20**% | **2.48%** |
| Other types of ships (offshore supply, gas carriers, chemical tankers, other/not available, ferries and passenger ships) | 238 705 **11,52**% | 243 922 **11,43**% | **2.19%** |
| General cargo ships | 76 893 **3,71**% | 76 754 **3,60**% | **-0.18%** |
| **World total** | **2 071 638** | **2 134 640** | **3.04%** |

Source: Review of Maritime Transport (2021). UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, p. xwi.

## 3. Ship and cargo transits through the Suez Canal

As a strategic point of the world maritime trade and maritime transport, the Suez Canal deserves constant research and analysis and statistical monitoring. In its annual statistics, the Suez Canal Administration pays special attention to the number of ships that pass through the Canal each year, showing the total tonnage of ships and the total cargo quantities transported. These data are presented in Table 3.

Table 3 Yearly Statistics Suez Canal for the number of ships and cargo tons

| Year | No (Vessel) | Cargo Ton (Ton) |
|---|---|---|
| 2011 | 17.800 | 691.8 mil |
| 2012 | 17.224 | 739,9 mil. |
| 2013 | 16.596 | 754,5 mil. |
| 2014 | 17.148 | 822,3 mil. |
| 2015 | 17.483 | 822,9 mil. |
| 2016 | 16.833 | 819,2 mil. |
| 2017 | 17.550 | 908,6 mil. |
| 2018 | 18.174 | 983,4 mil. |
| 2019 | 18.880 | 1.031,2 mil. |

Source: Authors adoption according to www.suezcanal.gov.eg/NavigationStatistics.

Apart from ships, reports and statistics monitor the total tons of cargo in the direction of navigation in a given year, such as North/South and South/North, Table 4.

Table 4 Yearly cargo tons by the direction of transit through the Suez Canal (in MT)

| Direction | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| N/S | 334,6 | 386,4 | 387,9 | 416,0 | 417,2 | 400,6 | 477,9 | 524,6 | 572,3 |
| S/N | 357,2 | 353,5 | 366,6 | 406,3 | 405,7 | 418,5 | 430,6 | 458,8 | 458,8 |
| Total/mill. | 691,8 | 739,9 | 754,5 | 822,3 | 822,9 | 819,2 | 908,6 | 983,4 | 1.031,2 |

Source: Authors' adoption according to www.suezcanal.gov.eg/NavigationStatistics.

Following the analysis of indicators from Table 3, it can be concluded that there has been constantly a large number of ships transiting the Suez Canal in the last ten years. More precisely, the number of ships that passed through the Suez Canal in 2011 was 17,800, and in 2019 their number was 18,880. In contrast to the rather stable total annual number of ships, a significant increase in cargo quantities can be observed on a yearly basis. These indicators can be attributed to the ever larger ships passing through the Canal in recent years, which has been enabled by the constant increase in the depth and width of the Canal itself.

In addition to the number of ships and total cargo quantities, the Table also brings the annual quantities of cargo transported in the directions of movement North/South and vice versa.

Thus, in the period 2011-2019, a fairly stable relationship between the movements of total annual quantities of cargo in both directions is noticeable. This means that the capacities of ships were equally used in both directions, which is of great importance for the stability of services maintained by some shipping companies through the Suez Canal in the long run. In recent years there is a great progress in the number of ships and goods passing the canal.

The analysis of the structure of cargo by the type of goods deserves special attention, as shown in Table 5 for 2019.

Table 5 Yearly cargo tons by cargo type transported through the Suez Canal 2019

| Goods | North/South | South/North | Total |
|---|---|---|---|
| **Oilproducts** | | | |
| LPG | 5.114.000 | 245.000 | 5.359.000 |
| Naphtha | 15.100.000 | 140.000 | 15.240.000 |
| Others | 13.766.000 | 3.942.000 | 17.708.000 |
| MotorSpirit(Gaso... | 5.471.000 | 22.738.000 | 28.209.000 |
| FuelOils | 27.533.000 | 3.240.000 | 30.773.000 |
| GasOil&DieselOil | 1.176.000 | 32.930.000 | 34.106.000 |
| CrudeOil | 59.062.000 | 48.136.000 | 107.198.000 |
| **Total** | 127.222.000 | 111.371.000 | 238.593.000 |
| **OtherGoods** | | | |
| FoodStuffs | 1.867.000 | 472.000 | 2.339.000 |

| Goods | North/South | South/North | Total |
|---|---|---|---|
| Machinery&Parts | 2.823.000 | 3.756.000 | 6.579.000 |
| OilSeeds | 5.908.000 | 1.892.000 | 7.800.000 |
| Others | 3.447.000 | 6.823.000 | 9.829.000 |
| Veg.Oils | 4.790.000 | 12.394.000 | 17.184.000 |
| Fertilizers | 16.783.000 | 4.440.000 | 21.223.000 |
| FabricatedMetals | 10.558.000 | 12.402.000 | 22.960.000 |
| Chemicals | 7.867.000 | 15.112.000 | 22.979.000 |
| LNG | 8.113.000 | 23.312.000 | 31.425.000 |
| Coal&Coke | 24.931.000 | 10.343.000 | 35.274.000 |
| Ores&Metals | 48.699.000 | 4.767.000 | 53.466.000 |
| Cereals | 53.043.000 | 1.092.000 | 54.135.000 |
| Cont.Cargo | 256.294.000 | 251.112.000 | 507.406.000 |
| **Total** | 445.123.000 | 347.476.000 | 792.599.000 |
| **Total** | **572.345.000** | **458.847.000** | **1.031.192.000** |

Source: Authors' adoption according to www.suezcanal.gov.eg/NavigationStatistics.

It is only after having analyzed the indicators from Tables 3, 4, and 5 that one gets a true picture of the analyzed situation as far as total ships, total cargo and types of cargo moving through the Suez Canal are concerned.

The steady increase in the number of ships, the size of ships and the overall increase in cargo transported through the Suez Canal since 1975 clearly shows the great importance of the Suez Canal for the international trade between Europe and Asia. The international trade between Europe and Asia could not exist on the current scale without the Suez Canal. All other variants of maritime and land transport are not able to provide the possibility of the achieved trading level. This is exactly what has ensured a long-term strategic significance of the Suez Canal including its future.

Notwithstanding a number of international conventions that ensure safety of navigation through the Suez Canal, in 1956, and even more significantly in 1967-1975, the Canal was closed. It is those temporary closures of the Canal that showed how significantly the Suez Canal affects international trade and maritime industry through the trade in commodities, rise in oil prices, rise in maritime freight rates, and through the growth of shipbuilding and ship prices worldwide.

In addition to the aforementioned closures of the Suez Canal due to warlike operations in the zone, it is particularly important to highlight the blocked navigation due to the grounding of the large container ship *Ever Given* in March 2021. The Canal was blocked for only six days, and yet that grounding instantly affected the world trade. There followed a disruption in the logistics system. The world was overwhelmed with fear of disruption of modern economic and logistical strategies that ensure the stability of the world commodity market in the Europe-Asia direction. That delay in the Suez Canal lasted only six days, after which the transit was normalized. However, the world's attention was drawn once again to the importance of the Suez Canal in the international trade of goods and services (Štivičić, 2021:22).

## 4. The influence of the Suez Canal on the development of the northern Adriatic ports

The geo-traffic position of the most important northern Adriatic ports of Rijeka, Koper and Trieste rests on a common gravitational hinterland which is realized by traffic routes and freight flows in the Alps -Adriatic - Danube region. Apart from roads and railways, the great advantage of the northern Adriatic ports stems from the fact that the Adriatic Sea has penetrated deep into the European mainland and thus extended maritime transport, which is far cheaper than land transport in that direction.

Considering a broader geographical map of the Mediterranean and the Adriatic Sea, it can be concluded that the Suez Canal has a very significant impact on the position and development of these Adriatic ports, as large amounts of cargo between Europe and Asia pass through the Suez Canal.

In the last few decades, the significant development of containerization has had its special development and affirmation in the direction of Central Europe, the Northern Adriatic, the Suez Canal, the Far East and vice versa.

The ports of Rijeka, Koper and Trieste are members of the North Adriatic Ports Association (NAPA). They are located at the North end of the Adriatic Sea as a natural sea route that penetrates deep into the very heart of the European continent, which makes it the simplest sea route from the Far East, via Suez, to Europe. In addition, the Association envisages cooperation in the development of connected coastal areas and hinterland, visits by cruise ships in the field of security and information technology. The NAP member ports also focus their efforts on coordinated planning of road, rail and maritime infrastructure and harmonize procedures and regulations related to the provision of port services (Transport Development Strategy of the Republic of Croatia 2017-2030, 2019:170).

According to some analyses, to the countries of Central Europe the North Adriatic traffic route is shorter by some 2000 Nm or approximately six days of navigation compared to the ports of the North Sea. All this has affected the development and turnover of ports such as Rijeka, Koper and Trieste. For ease of reference, here follows a breakdown of cargo turnover in the port of Rijeka for the last five years.

Table 6. Cargo turnover in the port of Rijeka 2017 – 2021 (Ton)

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Dry cargo | 4617230 | 4776198 | 4850816 | 5482624 | 5538955 |
| Liquid cargo | 7997830 | 8628586 | 6637726 | 8106280 | 6833977 |
| Total turnover | 12615066 | 13404784 | 11488542 | 13588904 | 12372932 |

Source: Authors' adoption according to www.porthauthority.hr

Table 7. Container turnover in the port of Rijeka (TEU)

| 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| 249975 | 360375 | 305049 | 344091 | 356068 |

Source: Authors' adoption according to www.porthauthority.hr

Indicators of tons of cargo transported in containers according to Table 7 are to emphasize that the total number of containers (TEU) in recent years amounted to a total of around 300,000 TEU per year.

The European Commission, through the EC White Paper, Article 392, refers to the model of the so-called "Short Sea Shipping".

The European infrastructure policy for ports should pay special attention and ensure good connectivity between the land transport system and ports throughout the European Union's coastal zone. This should be achieved through a much better balanced distribution of incoming and outgoing goods in the European transport system. In doing so, ports will need to improve accessibility, quality and reliability of their services.

Based on the determinants of the European transport policy and the development plans of the Port of Rijeka, ambitious development plans for the coming period can be ascertained, aimed at overcoming some limiting factors. Particular emphasis can be placed on the completion of the new container terminal and the improvement of roads to the hinterland, as well as a better solution to the Rijeka transport hub. Where containers are concerned, the port of Rijeka should provide maritime and land conditions in order to attract goods at a more significant rate. Shipping companies will only recognize the possibility of optimizing their transport chain by meeting their basic goal, which is to reduce costs per container unit. Accept port of Rijeka, Suez Canal have a great influence on other croatian ports such as: Ploče, Šibenik, Split, Zadar and Dubrovnik.

Analyzing the development of the northern Adriatic ports, it can be concluded that the port of Koper has followed a very dynamic development trend and a significant increase in all types of cargo in the last fifty years. Total cargo turnover in the port of Koper in the period 2017-2021 is presented in Table 8.

Table 8. Total cargo turnover in the port of Koper 2017 – 2021 (Ton)

| **Total** | **2017** | **2018** | **2019** | **2020** | **2021** |
|---|---|---|---|---|---|
| General cargo | 1.377.702 | 1.526.026 | 1.280.194 | 945.807 | 1.126.786 |
| Containers | 9.071.413 | 9.520.007 | 9.475.016 | 9.268.843 | 9.703.404 |
| Cars | 1.123.779 | 1.156.265 | 1.111.433 | 998.201 | 1.094.326 |
| Dry bulk cargo | 7.917.542 | 7.991.074 | 6.618.616 | 4.987.215 | 5.565.585 |
| Liquid bulk cargo | 3.876.535 | 3.855.247 | 4.307.388 | 3.323.038 | 3.331.065 |
| Total | 23.366.959 | 24.048.618 | 22.792.646 | 19.523.133 | 20.821.166 |

Source: Authors' adoption according to www. luka-kp.si/aktualno/statistika-pretovara/

As the port of Koper leads in container turnover in the northern Adriatic route, Table 9 shows the total container turnover in the period 2017-2021.

Table 9. Total container turnover cars and passangers in the port of Koper 2017 – 2021 (in units)

| Total | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Containers (TEU) | 911.528 | 988.501 | 959.354 | 945.051 | 997.574 |
| Cars (units) | 741.253 | 754.409 | 705.993 | 617.157 | 656.477 |
| No. of passengers | 72.175 | 101.415 | 115.581 | 0 | 4.450 |
| No. of vessels | 1.995 | 1.903 | 1.665 | 1.433 | 1.551 |

Source: Authors' adoption according to www. luka-kp.si/aktualno/statistika-pretovara/

The significant increase in container turnover is due to the creation of maritime and land conditions. The Port of Koper increased its cargo loading/unloading capacity in time by investing in new container cranes and expanding the existing container terminal. With the introduction of new railroad operators, Slovenian railways have created land conditions that are competitive with North Sea ports and their associated traffic routes. Cost reducing per container unit is a dynamic process in which the Port of Koper and Slovenian Railways have taken a significant step towards satisfying the interests of shipping companies operating in highly competitive conditions. Strengthening the competitiveness of the port of Koper and the Slovenian traffic route can also be beneficial for any other ports in the region. Optimization of transport chains through the transport routes of the port of Rijeka and the port of Trieste can provide shipping companies with additional options for redirecting goods flows and meeting their business goals (Hlača et al, 2014: 252).

Analyzing the development of the port of Trieste, it can be concluded that this port has the longest history of all the northern Adriatic ports. The line of a rapid growth and importance of the port of Trieste dates back to the early 18th century when Trieste was declared a free port. Container turnover in the port of Trieste in the period 2017-2021 is presented in Table 10.

Table 10. Total container turnover in the port of Trieste 2017 – 2021

| Total | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Containers (TEU) | 546.660 | 625.767 | 688.649 | 687.921 | 652.319 |
| Total | 546.660 | 625.767 | 688.649 | 687.921 | 652.319 |

Source: Authors' adoption according to www. trieste-marine-terminal.com/en/statistics

In recent years, the port of Trieste has a total cargo of over 50 million tons of cargo per year.

Dry cargo, liquid cargo and general cargo turnover in the port of Trieste 2017.-2021. is presented in Table 11.

Table 11 Cargo turnover in the port of Trieste 2017 – 2021 (Ton)

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Dry cargo | 1.639.595 | 1.665.508 | 1.717.294 | 540.827 | 571.791 |
| Liquid cargo | 43.750.555 | 43.234.735 | 43.349.423 | 37.564.687 | 37.426.452 |
| General cargo | 16.557.304 | 17.776.259 | 16.930.728 | 16.049.706 | 17.363.451 |
| Total | 61.947.454 | 62.676.502 | 61.997.445 | 54.155.220 | 55.361.694 |

Source: Authors' adoption according to www. porto.trieste.it /eng/port/description

Analyzing the cargo turnover in the port of Trieste 2017.- 2021. it can be concluded that in the port of Trieste prevail liquid cargo.

## 5. Conclusion

Having in mind the main goals of this paper and analyzing everything stated in it, the authors can conclude that all the planned goals have been mainly achieved through individual parts of this paper. Thus, the authors state that without the Suez Canal it is impossible to imagine international trade and maritime traffic in their current form.

The paper uses and analyzes data from international maritime trade, provides and presents a large number of tables that exhaustively monitor the traffic of ships and cargoes through the Suez Canal, all based on the reports and statistics of the Suez Canal Authority. In particular, the paper analyzes data on the traffic of certain types of cargo in the ports of Rijeka, Koper and Trieste. Considering the influence and connection of Suez upon the North Adriatic ports, it is important to emphasize that the Suez Canal connects two large markets, which comprise on one side the countries of Central Europe that gravitate to the ports of the North Adriatic, and on the other side the large market of the Middle East and Far East.

The paper pays special attention to the transit of ships and transported cargo through the Suez Canal. The steady increase in the number of ships and the amount of cargo transported through the Suez Canal over the last ten years has been confirmed. The paper emphasizes the great influence of the Suez Canal for the development and operation of the northern Adriatic ports. Thus, the modernization of the northern Adriatic ports, the development of roads in the gravitational hinterland and the Suez Canal make the three strategic points that the development of the northern Adriatic ports rests upon.

In accordance with all the afore said, the freedom and safety of navigation through the Suez Canal significantly determine the geo-traffic position of the Adriatic ports in Europe and the world.

## LITERATURE

1. Dundović, Č., Grubišić, N. (2013). Pomorska i prometna politika, Pomorski fakultet u Rijeci, Rijeka.
2. Hlača, B. (2016). Lučka logistika, Pomorski fakultet u Rijeci, Rijeka.
3. Stražičić, N. (1996). Pomorska geografija svijeta, Školska knjiga, Zagreb.
4. Zelenika, R. (2005). Logistički sustavi, Ekonomski fakultet u Rijeci, Rijeka.
5. Hlača, B., Rudić, D., & Gržin, E. (2014). Promet kontejnera na pravcu Daleki istok–sjever ili jug Europe. Zbornik Veleučilišta u Rijeci, 2(1), 235-254.
6. Rudić, D., Hlača, B., & Gržin, E. (2013). Strateške odrednice kontejnerskog prometa u riječkoj luci. Zbornik Veleučilišta u Rijeci, 1(1), 259-277.
7. Rudić, B., & Gržin, E. (2020). Razvoj kontejnerizacije u svijetu i analiza kontejnerskog prometa u luci Rijeka. Zbornik Veleučilišta u Rijeci, 8(1), 427-442.

8. Štivičić, P. (2021). Značenje Sueskog kanala za pomorski promet, Završni rad, Veleučilište u Rijeci, Rijeka.
9. Review of Maritime Transport (2022). UNITED TRADE CONFERENCE ON TRADE AND DEVELOPMENT, 2022.
10. Transport Development Strategy of the Republic of Croatia 2017.-2030.
11. http://ec.europa.eu/white-paper/index_en htm (1.2.2023)
12. www.suezcanal.gov.eg./English/Navigation/Pages/NavigationStatistics.aspx (1.2.2023.)
13. www.statista.com/statistics/125268/number-of-transits-in-the-suez-cana-annually/ (1.2.2023.)
14. http://www.enciklopedija.hr/Nautica.aspx?ID=58651> (1.2.2023.)
15. www.porthauthority.hr (1.2.2023.)
16. www.luka-kp.si/aktualno/statistika-pretovara/ (1.2.2023.)
17. www.trieste-marine-terminal.com/en/statistics (1.2.2023.)
18. www.porto.trieste.it/eng/port/description (18.4.2023.)

*Sažetak*

***SUESKI KANAL KAO STRATEŠKA TOČKA POMORSKE TRGOVINE I UTJECAJ NA JADRANSKE LUKE***

*U ovome radu istražuje se i analizira strateška uloga Sueskog kanala u razvoju međunarodne pomorske trgovine. Analizira se razvoj međunarodne trgovine po izabranim godinama u razdoblju od 1970. do 2021. godine. Posebice se analizira stanje svijetske trgovačke flote prema vrstama brodova zadnjih godina. Uz ostalo, u radu se istražuje i razmatra promet brodova i tereta kroz Sueski kanal zadnjih devet godina. Imajući na umu osnovnu ideju i mogućnost povezivanja Europe i Azije putem Sueskog kanala, ostvarila se i mogućnost razvoja i funkcioniranja glavnih logističkih strategija na kojima danas počiva uspješna međunarodna robna razmijena i prometna logistika. U sklopu utjecaja Sueskog kanala na pomorski promet posebno se posvećuje pozornost utjecaja Sueskog kanala na luke sjevernog Jadrana koje su se jako zavukle u europsko kopno sa južne strane i tako osigurale veliku konkurentnost tih luka u Europi i svijetu. Jedan od glavnih ciljeva ovoga rada je naglasak na činjenicu da su Sueski kanal i gravitacijsko zaleđe sjevernojadranskih luka sa svojim kopnenim prometnicama glavni elementi koji određuju razvoj i poslovanje sjevernojadranskih luka. Sloboda i sigurnost plovidbe preko Sueskog kanala bitno određuju geoprometni položaj jadranskih luka u Europi i svijetu.*

***Ključne riječi**: Sueski kanal, pomorska trgovina, sjevernojadranske luke, gravitacijsko zaleđe.*