

## PENGARUH KEBIJAKAN BEBAS VISA TERHADAP EKSPOR INDONESIA

### ABSTRAK

Studi ini mengkaji pengaruh kebijakan bebas visa terhadap ekspor Indonesia, dengan menggunakan metode *Staggered Difference in Difference* (DID) dan data ekspor Indonesia ke 191 negara mitra periode 2015 – 2019. Penelitian ini menemukan bahwa kebijakan bebas visa Indonesia berpengaruh terhadap ekspor namun tidak bersifat “*one size fits all*”. Pengaruh positif signifikan dihasilkan oleh bebas visa yang diterima kawasan Amerika, dan pengaruh signifikan negatif terhadap ekspor dihasilkan oleh bebas visa yang diterima kawasan Oceania. Adapun kawasan Amerika merupakan salah satu prioritas penerima bebas visa Indonesia, kawasan yang paling banyak memberikan bebas visa kepada Indonesia setelah kawasan Asia. Sementara Oceania merupakan kawasan yang paling *restricted* dalam hal bebas visa baik secara unilateral maupun resiprokal dengan Indonesia.

Kata Kunci: Bebas Visa, Perdagangan Internasional, Ekspor, Staggered DID

Klasifikasi JEL: F13, F16, F22

### THE EFFECT OF VISA EXEMPTION POLICY ON INDONESIAN EXPORT ABSTRACT

This study examines the effect of the visa exemption policy on Indonesia's exports, by using Staggered Difference in Difference (DID) method and Indonesia's export data to 191 partner countries in 2015 - 2019 period. This study finds that visa exemption policy of Indonesia has effect on its export, but it is not "one size fits all". A significant positive effect was generated by visa-exemption received by American region, and a significant negative effect on exports was generated by visa exemption received by Oceania region. American region is one of the priority recipients of visa exemption policy of Indonesia, and provides the most visa exemption to Indonesia after the Asian region. Meanwhile, Oceania is the most restricted region in terms of visa exemption policy both unilaterally or reciprocally with Indonesia.

Keywords: Visa Exemption, International Trade, Export, Staggered DID

JEL Codes: F13, F16, F22

### INTRODUCTION

The era of Jokowi government set the economic development mission as the main priority. This mission was translated through a number of cross-sectoral policy packages, including the implementation of a visa-exemption policy which was quite extreme compared to previous periods. The number of recipients was increased from 15 countries/entities in 2011 to 90 recipient

countries/entities in 2015, and to 169 recipient countries/entities in 2016.

This policy has produced a number of positive and negative impacts for Indonesia, including evidenced by the study of Yudhistira et al (2021), that in the tourism sector this policy can increase the number of foreign tourist visits per month on average, and 8% per year after 1 year the policy is implemented. From the negative side, Prihartini & Yudhistira (2021) study proves that the policy of increasing visa exemptions in 2015-2019 has increased

immigration violations in Indonesia, namely by an average of 44.2%.

Considering that the visa exemption also allows business visits, the author sees a possible impact of this policy on the trade sector. This is related to the visa-exemption function as one of the "trade facilitation" strategies used to reduce non-tariff barriers, namely related to reducing price instruments for entry and exit of the region (Bank Indonesia, 2007). The Trade Facilitation policy is aimed at simplifying procedures for the movement of goods and services in trade, as well as reducing costs other than production costs. Visa liberalization policies are an important factor to facilitate business travel and encourage the industrial world to engage in international trade (Akman, 2016a).

In this regard, this paper examines the effect of visa exemption on Indonesian exports. The change in visa-exemption policy from 90 countries in 2015 to 169 receiving countries in 2016, and no change after that until 2019. This allows the author to see the difference in the effect of visa-exemption on Indonesia's exports before and after the implementation of the policy, as well as the difference in the effect of visa-exemption with group of recipient countries based on region; level of development; and level of income. The research period cannot be extended to avoid bias, because in 2020 the policy was temporarily suspended due to Covid-19 pandemic.

## **LITERATURE REVIEW**

To increase economic profits, besides using strategy of direct cross-border product transactions, another strategy used in the liberalization era is the establishment of a production base for multinational companies in a country to support production units in terms of labor, technology, transportation and information. Trade methods, both direct transactions and through investment, which lead to international trade, result in the movement of business people, either to search for merchandise, make trade deals, or coordinate production and marketing. Cristea (2011) study

found that the increase in American export volume was in line with an increase in demand for business class air travel tickets in America. The existence of relationship between export volume, the amount of demand for air travel business tickets and bilateral trade patterns indicates a positive correlation between these factors, and proves the importance of face-to-face meetings in international trade. The visa liberalization policy is an important factor to facilitate business travel and encourage the industrial world to engage in international trade (Akman, 2016a).

## **Export Theory**

In general, exports are influenced by two important components, namely internal factors and external factors. Internal factors refer to supply-side conditions or the country of origin of the product, with influences related to location (e.g. access to raw materials and other resources), costs associated with labor and capital, resource endowments, economic policies and the institutional environment, as well as access to technology that may affect productivity. Meanwhile, external factors are related to market access conditions and other factors that influence product demand, such as trade barriers and competition factors for foreign market access, transportation costs, which include geography and physical infrastructure (Fugazza, 2004). Export performance is also determined by trading partner income. The higher the trading partner's income, the greater the demand for it. Apart from that, exports are also negatively related to the real exchange rate. The higher the real exchange rate, the more exports will tend to decline (Blanchard, 2017).

Many studies have found that the visa-exemption policy has a positive effect on improving economic performance, both trade and investment. Umana-Dajud's studi (2019) found that the ease of obtaining a visa can influence the diversification and increase in exports of developing countries. The importance of face-to-face in international trade is proven by Cristea's study (2011) that an increase in the volume of United States exports increases the country's ticket demand for business class air travel. The

existence of a relationship between export volume, the amount of demand for air travel business tickets and bilateral trade patterns indicates a positive correlation between these factors, and proves the importance of face-to-face meetings in the context of international trade.

The positive results of visa freedom will be maximized if they are reciprocal. This is supported by the findings of Neumayer (2011) that if two countries impose visa restrictions either unilaterally or bilaterally, then bilateral trade flows will be smaller than if the two countries implemented visa-exemption restrictions on each other.

Furthermore Vallejo & Pescador's study (2019) found that visa freedom had an effect on increasing inbound travelers which ultimately affected international trade. This study also proves that inbound travelers have a positive effect on exports, and tend to reduce imports, especially for intermediate goods. This study also proves that inbound travelers have a positive effect on exports, and tend to reduce imports, especially for intermediate goods. The Czaika & Neumayer (2017) study found that countries that impose visa restrictions tend to experience a decline in trade, because trade to countries that impose visa restrictions can switch to a destination country that provides visa exemption. The study also found that low-income countries are more vulnerable to the effects of these visa restrictions.

## **RESEARCH METHODOLOGY**

### **DATA, DATA SOURCES, ANALYSIS UNITS**

This research uses secondary data from various sources combined into panel data for the 2015-2019 period with a unit of analysis at the country level. The research sample was 169 countries that received visa exemptions, and 22 countries that did not accept visa exemptions. The variables and data sources are as follows:

1. Dependent variable is exports.
2. Variable of interest is the visa-exemption dummy that Indonesia provides to sample

countries. The number 1 is given if the sample country obtains a visa exemption, and the number 0 is given if a country does not obtain the visa exemption.

3. Control variables consist of:
  - a. The number of tourist visits from various sample countries to Indonesia, obtained from the Indonesian Central Statistics Agency (BPS).
  - b. Real exchange rate, which is processed from nominal exchange rate data and consumer price index (CPI) obtained from website of United Nations Conference on Trade and Development (UNCTAD).
  - c. Gross domestic income per capita obtained from website of UNCTAD.
  - d. Population is obtained from website of UNCTAD.
  - e. Fare or weighted average price of airline tickets is obtained from data from the International Association of Travel Agents Network (IATA).
  - f. Mobility Score Passport Power Rank.
  - g. Simple average Tarrif Most Favoured Nation (MFN) published by WTO.
  - h. List of Indonesia's trade agreements with partner countries published by ARIC.
  - i. Country fixed effect and year fixed effect.

Next, to see the effect of visa exemption based on groups of observations, visa exemption policy is grouping based on region, income and level of development, each of which is regressed separately. The free distribution of samples was made by region (Asia, Africa, America, Europe, Oceania) based on group determined by the United Nations. The division of country groups based on income (low, low mid, up mid, high) is as stated on the World Bank website. Visa exemption based on income level. Using the World Bank Atlas calculation method, low income countries have a GNI per capita of less than \$ 1,035; low-mid income countries have GNI per capita between \$1,036-\$4,045; upmid income countries have GNI per capita between \$4,046-\$12,535; and high

income countries have GNI per capita of more than \$12,536. Furthermore, the level of development (developed and developing) follows the division made by the United Nations.

**Empirical Model**

This research uses Staggered Difference in Difference model, where units that receive treatment at a certain time will become the treatment group, and those that do not receive treatment will become the control group. For this reason, a unit can be a control group at certain times and a treatment group at other times (Goodman-Bacon, 2018). The model equation is:

$$\ln y_{it} = Q_0 + Q_1 D_{it} + X'_{it} \theta + a_t + a_i + \varepsilon_{it} \dots \dots \dots (1)$$

The symbol  $y_{it}$  is the dependent variable (exports),  $D_{it}$  is the variable of interest which shows changes in the visa-exemption visit policy, given a value of 1 for country  $i$  if it is granted visa-exemption visits in year  $t$ , and 0 otherwise;  $Q_1$  is a coefficient that shows the change in exports between the treatment group or countries that obtain visa exemption, and control countries or countries that do not obtain visa exemption. If visa exemption has an effect on the dependent variable, then the coefficient value  $\beta_1 > 0$ , and is statistically significant. If the coefficient does not show significant results, it is only read as an influence, while if there is a significant coefficient value then it will be calculated further as an impact.

$X'_{it}$  is the control variable;  $a_t$  is a year fixed effect which is used to control factors that can change every year and cannot be observed;  $a_i$  is a country fixed effect which is used to control for average differences between countries, whether observable or unobservable. It is assumed that the time invariant characteristics of each country are unique and should not be correlated between countries. The coefficient value  $\beta_1$  in equation (1) measures the average impact of the visa-

exemption visit policy on the level of change in exports.

In order to see the different impacts of each group of countries, estimates were carried out using equation (2) using a visa-exemption visit policy dummy based on the grouping of observation groups (regional level; income; and level of development).

$$\ln y_{it} = \beta_0 + \beta_1 \text{visa}_{group1it} + \beta_2 \text{visa}_{group2it} + \beta_3 \text{visa}_{group3it} + \beta_4 \text{visa}_{group4it} + X'_{it} \theta + a_t + a_i + \varepsilon_{it} \dots \dots \dots (2)$$

To ensure that there is a difference in the effect of visa exemption on exports between before and after the implementation of the visa exemption policy, the author conducted a parallel trend test. By this method the author tests the effect of post treatment or the effect after the implementation of the policy; and anticipatory effect (made as if the visa-exemption policy was implemented in 2015 for countries that actually only got visa-exemption in 2016).  $\beta-t$  and  $\beta+t$  represent the post treatment and anticipatory effects in question. The model used is as follows:

$$\ln y_{it} = Q_0 + \sum_{t=0}^4 \beta - t \text{D}_{it} - 1 + \sum_{t=1}^1 \beta - t \text{D}_{it} + X'_{it} \theta + a_t + a_i + \varepsilon_{it} \dots \dots \dots (3)$$

In order to ensure regression results is robust, in the final stage a robustness check was carried out by using placebo test. This estimation results produced a significant coefficient.

**RESULTS AND DISCUSSION**

At the basic estimation stage, which is general regression or without country grouping, the coefficient of the effect of visa exemption on exports shows positive results in all models but it is not significant. The absence of a significant coefficient in this basic estimate is thought to

occur because the 5 years observation period is not strong enough to capture this significant influence.

Table 1. Baseline Effect of Visa Exemption on Exports

	Dependent Variable $\ln y$ (Export)				
	(1)	(2)	(3)	(4)	(5)
Visa (1 for visa exemption, 0 otherwise)	0.108 (0.0855)	0.114 (0.103)	0.127 (0.0970)	0.126 (0.0972)	0.114 (0.0997)
Tourist	No	-0.0297	-0.0326	-0.0331	-0.0257
Fare	No	0.0180	0.0419	0.0415	0.102
Reer	No	No	0.676**	0.675**	0.735
Pop_Partner	No	No	0.464	0.463	1.213
GDPcappartner	No	No	0.756***	0.756***	0.968***
Ms_ppr	No	No	-0.00878	0.00876	-0.00576*
TradeAgreement	No	No	No	-0.0787	-0.109
MFN Tarrif_F	No	No	No	No	-0.0470
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Total Observation	926	857	848	848	736
R-squared within Countries	0.0619 186	0.0624 181	0.0941 178	0.0942 178	0.131 166

Note: Numbers in parentheses are robust standard errors

Next, to see in more detail the effect of visa exemption on exports, data was disaggregated for observation groups or sample countries based on region, income level and level of development. By looking at the coefficient and r square values within the 5 basic estimation models, the model chosen for the next regression is model number 5.

Table 2. Effect of Visa Exemption Based on Region to Exports

	Dependent Variable $\ln y$ (Export)				
	v_Asia	v_Amerika	v_Afrika	v_Eropa	v_Oceania
Visa (1 for visa exemption, 0 otherwise)	0.229 (0.378)	0.163** (0.0790)	0.128 (0.154)	0.0514 (0.187)	-0.236** (0.0974)
Total Observation	736	736	736	736	736
R-squared within Countries	0.138 166	0.138 166	0.138 166	0.138 166	0.138 166

Note: Numbers in parentheses are robust standard errors. The effect of visa exemption policy is calculated as a percentage change based on equation  $100(e^{\beta}-1)$ , where  $\beta$  is the coefficient of the dependent variable resulting from the regression. \*\*\*, \*\*, \*, indicate levels of statistical significance of 1%, 5%, and 10%.

Estimates effect of visa exemption recipient countries per region show that groups based on observation groups of visa-exemption that have a positive influence are the visa-

exemption regions of Asia, Africa, Europe and America. However, only the visa exemption for the American region has a significant positive impact of 0.163\*\* with a confidence level of 5%, or in other words, an average impact of 17.70% on increasing Indonesian exports to the American region. Meanwhile, visa freedom for the Oceania region tends to have a negative effect, with a coefficient of -0.236\*\* and a confidence level of 5%, or an average impact of -21.02% on the decline in Indonesian exports to the Oceania region.

The significant positive effect resulting from visa exemption received by the American region is in line with Umana-Dajud (2019) study which found that visa convenience can influence diversification and increase exports in developing countries or can have a positive effect on increasing exports. This is also in accordance with a study (Vallejo & Pescador, 2019) which suggests that visa exemption can have an effect on increasing inbound travelers, which then has a positive effect on increasing exports. This is also in line with the study of Yasar Mahmut & Avid (2012) which found that visa exemption can increase the exports of visa-exemption countries of origin to recipient countries.

The significant negative effect produced by the Oceania region observation group shows that the effect of visa exemption is not "one size fits all". This shows that there are different effects produced by visa exemption groups/region to exports. The Americas region is one of the priority recipients of visa-exemption visits to Indonesia, and is the second region that gives the most visa-exemption visits to Indonesia after Asia. Indonesia's trade policy engagement with the region is also consistent both in the trade context (main destination area). Meanwhile, Oceania is the lowest region in terms of the number of reciprocal visa exemptions with Indonesia, and is limited in terms of trade agreements with Indonesia. This reflects that this region has a greater level of visa barriers than other regions. Temuan This finding is in line with the findings of Neumayer (2011) that if two countries impose visa restrictions either unilaterally or bilaterally, bilateral trade

flows are smaller than if the two countries impose visa-exemption restrictions on each other. This is also in line with the findings of the study by Darma & Hastiadi, (2017) which states that trade cooperation has an important influence on increasing exports.

In terms of the level of development (developed and developing), the regression results show that visas for developing regions have a positive effect or have the potential to increase exports but are not significant, while visa recipients for developed regions have a negative effect. Neither has a significant impact. In terms of income level, the resulting coefficient does not show a significant effect of visa-exemption income level groups on trade.

### **Parralel Trend Assumption Test**

The results of the parallel trend test show that the implementation of visa exemption further increases exports. The effect of visa exemption began to turn positive in the second year after the implementation of visa exemption policy. These results are consistent with the baseline estimates which doesn't not show significant results. This Dynamic Effect also shows that the effect of visa exemption takes a longer time to produce a more significant effect. For this reason, considering that the effective period for implementing Indonesia's visa-exemption policy with the number of countries used as samples in this research is quite limited, namely 2015 - 2019, the influence that can be captured in this dynamic effect is quite limited. Next, robustness checks were carried out on 2 significant results, namely the Americas region and the Oceania region. This is done by means of a placebo test using random outcomes. The results shows that coefficients produced by American visa exemption and Oceania visa exemption using random outcome are not significant. This indicates that the coefficients produced by the main estimation results are robust.

### **CONCLUSION AND POLICY RECOMMENDATION**

Visa exemption policy of Indonesia has effect on its export, but it is not "one size fits all". The positive influence of visa exemption is

produced by regional groups that have a high level of visa-exemption acceptance and high reciprocity. On the other hand, the negative impact of visa freedom tends to be produced by regions with relatively low levels of visa-exemption acceptance and visa-exemption reciprocity. Apart from visa freedom, other factors that also have an important influence on exports are income, population, real exchange rate and connectivity. Meanwhile, tariffs from partner countries have a negative effect on Indonesian exports. The visa-exemption policy that Indonesia provides to trading partner countries has not been balanced with the competitiveness of Indonesia's passport power in the global region considering that its mobility score and passport power rank are still low.

In connection with these findings, this research recommends that the government needs to encourage a reciprocal visa-exemption policy, and ensure that visa-exemption recipients are countries that meet the eligibility criteria for strengthening bilateral trade, including strong trade relations, both in terms of access and Indonesian competitiveness product, high income and adequate connectivity.

## BIBLIOGRAPHY

- Akman, E. (2016a). *The facilitating role of visa policies on international trade and foreign direct investment*. 3849.
- Akman, E. (2016b). The facilitating role of visa policies on international trade and foreign direct investment. *Turkish Studies*, 17(4), 712–732.
- ARIC. (2022). *Indonesia Free Trade Agreement*. Asia Regional Integration Center. <https://aric.adb.org/indonesia/data>
- Asec. (2020). ASEAN Statistical Yearbook 2020. In *Jakarta: Association of Southeast Asian Nations (ASEAN)* (Vol. 18).
- Baltagi, B. . (2005). *Econometric Analysis of Panel Data 3rd Edition*. In *John Wiley and Sons Ltd, England*.
- Bank Indonesia. (2007). *Kerja Sama Perdagangan Internasional: Peluang dan Tantangan Bagi Indonesia* (S. Arifin, D. E. Rae, & C. P. R. Joseph (eds.)). PT Elex Media Komputindo.
- Blanchard, O. (2017). *Macroeconomics* (2016, Pearson).
- BPHN Kemenkumham. (2020). *Laporan Akhir Analisis dan Evaluasi Hukum Terkait Keimigrasian*.
- Cristea, A. D. (2011). Buyer-seller relationships in international trade: Evidence from U.S. States' exports and business-class travel. *Journal of International Economics*, 84(2), 207–220.
- Czaika, M., & Neumayer, E. (2017). Visa restrictions and economic globalisation. *Applied Geography*, 84(July), 75–82.
- Darma, S. W., & Hastiadi, F. F. (2017). *International Journal of Economics and Financial Issues*, 7(6), 51–58. <http://www.econjournals.com>
- Fugazza, M. (2004). *Export Performance and its Determinants : Supply and Demand Constraints Study Series No . 26*. Geneva.UNCTAD.
- Goodman-Bacon, A. (2018). 'Difference-in-Differences With Variation in Treatment Timing', NBER Working Paper Series, Working Paper. *NBER Working Paper Series, 25018*.
- Kementerian Perdagangan. (2015). *Laporan Akhir Peta Diplomasi Perdagangan Internasional*. <http://bppp.kemendag.go.id>.
- Keputusan Presiden Republik Indonesia. (2013). *Keputusan Presiden Republik Indonesia Nomor 18 Tahun 2013 Tentang Bebas Visa Kunjungan Singkat* (pp. 4–7).
- Krugman, P. R., & Obstfeld, M. (2009). *International economics: Theory and policy*. Boston: Pearson Addison-Wesley.
- Limanseto, H. (2022). *Surplus Neraca Perdagangan Kembali Cetak Rekor Tertinggi dalam 15 Tahun Terakhir*. [Www.Ekon.Go.Id](http://Www.Ekon.Go.Id).
- Nizar, M. A. (2013). Pengaruh Pariwisata Terhadap Perdagangan Internasional di Indonesia. *Jurnal Kepariwisata Indonesia*, 8(3 (September)), 227 – 240.
- Passport Index. (2022). *Passport Index*. Passport

- Index.  
<https://www.passportindex.org/passport/indonesia/>
- Peraturan Presiden. (2008). *Peraturan Presiden Republik Indonesia Nomor 16 Tahun 2008 Tentang Perubahan Kedua Atas Keputusan Presiden Nomor 18 Tahun 2003 Tentang Bebas Visa Kunjungan Singkat* (Issue 1, pp. 1–5).
- Peraturan Presiden No. 43. (2011). *Peraturan Presiden Republik Indonesia Nomor 43 Tahun 2011 Tentang Perubahan Ketiga Atas Keputusan Presiden Nomor 18 Tahun 2003 Tentang Bebas Visa Kunjungan Singkat* (Issue 1, pp. 1–4).
- Peraturan Presiden Republik Indonesia Nomor 69. (2015). *Peraturan Presiden Republik Indonesia Nomor 69 Tahun 2015 Tentang Bebas Visa Kunjungan* (Vol. 3, Issue 1).
- Peraturan Presiden RI No. 104. (2015). *Peraturan Presiden Republik Indonesia Nomor 104 Tahun 2015 Tentang Perubahan Atas Peraturan Presiden Nomor 69 Tahun 2015 Tentang Bebas Visa Kunjungan*.
- Peraturan Presiden RI No.21. (2016). *Peraturan Presiden Republik Indonesia Nomor 21 Tahun 2016 Tentang Bebas Visa Kunjungan*.
- Prihartini, E. N., & Yudhistira, M. H. (2021). The adverse effects of the visa exemption policy: evidence of immigration violations in Indonesia. *Journal of Policy Research in Tourism, Leisure and Events*, 0(0), 1–18.
- Pudjiastuti, A. Q. (2015). *Perubahan Neraca Perdagangan Indonesia Sebagai Akibat Penghapusan Tarif Impor Gula*. 3, 106–116.
- Supargo, A. (2019). *Daftar Negara Bebas Visa dan Visa on Arrival untuk Passpor Indonesia 2019*.
- Syakir. (2020). Pengaruh Peraturan Presiden Nomor 21 Tahun 2016 Tentang Bebas Visa Terhadap Keamanan Negara dan Kesejahteraan Dalam Perspektif Keimigrasian. *Syntax Admiration*, 1(3), 262–278.
- Trade Map. (2022). *List of partners markets for a product commercialized by Indonesia*. Trade Map. <https://www.trademap.org/>
- Umana-Dajud, C. (2019). Do visas hinder international trade in goods? *Journal of Development Economics*, 140(October 2017), 106–126.
- Vallejo, D. A. C., & Pescador, J. D. P. (2019). *International Business Travel and Trade : A Case Analysis for Colombia*.
- Yasar Mahmut, L. D., & Avid, R. M. R. (2012). *Bilateral trade impacts of temporary foreign visitor policy*. 148(3), 501–521.
- Yudhistira, M. H., Sofiyandi, Y., Indriyani, W., & Pratama, A. P. (2021). Heterogeneous effects of visa exemption policy on international tourist arrivals: Evidence from Indonesia. *Tourism Economics*, 27(4), 703–720.