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The Internet Costs' Role in Indonesia's Creative Industry Competitiveness

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Abstract

The purpose of this study is to analyze the role of the Internet as a soft infrastructure medium in the framework of international trade facilitation. as part of international trade facilitation which is expected to be able to reduce barriers in Indonesia's trade with 18 trading partners in the export of creative industry goods by HS codes: 49, 91, 92, 95 and 97. The analysis method used is a quantitative approach with panel data regression using a gravity model based on time series data with cross sections of 18 trading partners from 2008 to 2017. The results of the analysis show that the internet subscription price variable has a significant effect on increasing international trade. Other variables such as GDP, population, and distance have a significant positive or negative effect on international trade, while FTA does not have any effect on exports of creative industry goods.

Key words : Export, Internet, Creative Industry, International Trades, Mobile Data Prices

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INTRODUCTION

Every country needs international trade to improve the welfare itself. Furthermore, practically every nation in the world engages in trade cooperation with other nations in this period of globalization. We know that every country involved in international trade will benefit from trade gains, which occur when one country sells goods and services to another, generating benefits for both parties (Machado & Trigg, 2021).

International trade, in practice, will always encounter obstacles. Barriers to international trade can be tariffs or non-tariffs. We can explained that the tariff is simply an import duty tax imposed on a product when it crosses the border of a country, while non-tariff barriers consist of several kinds, including quotas for imports, import licenses/ permits, requirements for domestic goods, subsidies, packaging, and labelling (Mandelman & Waddle, 2020).

Barriers continue to be a problem in international cooperation between the two countries and are often the cause of slowing export growth. Efforts to make barriers more effective are continuously being carried out by various countries, one of which is in the form of bilateral or multilateral cooperation. The rapid development of technology today helps create convenience in cooperation between countries, especially in the context of international trade. This convenience is a positive implication of technological developments in the form of the internet.

Internet infrastructure has become a trade facilitation scheme that is an important requirement, especially for communicating and obtaining information. The Internet allows every individual to find, and store information becomes very easy and affordable. The increasingly widespread and affordable internet creates many business opportunities where many buying and selling activities are carried out online. The creation of this digital transaction trend is inseparable from the increasing growth of internet users. Others study on the impact of information technology and e-commerce on Indonesian trade to ASEAN countries, they discovered that an increase in broadband users or telecommunication network users by one user per 100 people resulted in a USD 1,006,3 million increase in the value of Indonesia's exports to ASEAN member countries. Meanwhile, increasing ASEAN e-commerce activity by one point will raise Indonesia's exports by USD 1,908.7 million (Yang & Martinez-Zarzoso, 2014).

The increase in exports in internet use is also influenced by online shopping attitudes. In their study, we know that perceived simplicity of use of applications had a positive effect on perceived utility (Aisyah, Prihantono & Madyan, 2021). Perceived benefits positively influence attitudes about online purchasing, and attitudes toward online shopping influence online shopping intentions. The conclusion from the research results regarding the effect of Total Addressable Market (TAM) on online shopping explained that by using the online shopping center application, customers could search for and acquire information on the products and services they were familiar with, as well as information regarding payment methods, shipping services, return and exchange policies, and after-sales support. Customers will be enticed to shop using online shopping center applications if they have access to detailed information and user-friendly applications.

Table 1 shows that non-oil and gas exports tended to decline over the last six years. The rise in non-oil and gas exports in 2016 was insufficient to spur an increase in Indonesian exports. Conversely, the value of creative economy (ekraf) exports increased. During the 2014-2020 period, creative economy (ekraf) exports experienced an growth in 2015 by 2.77%, and then it continue to increase until 2016. On average, during the 2014 to 2022 period, creative

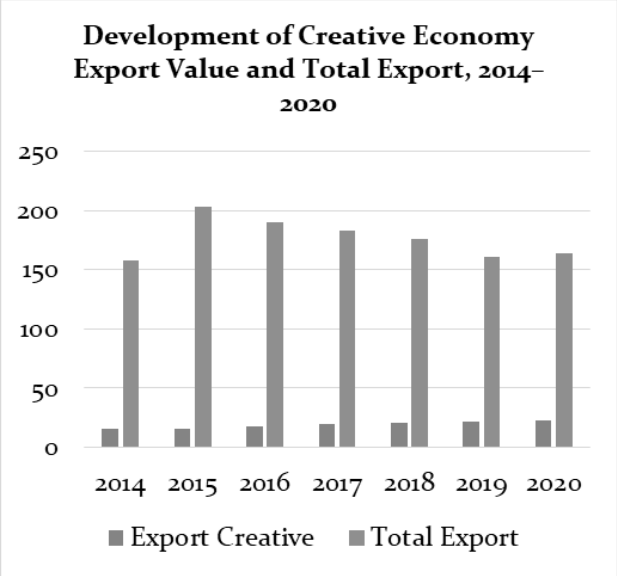
economy (ekraf) exports increased by 6.93 percent per year. When compared with exports of non-oil and gas commodities, on average in the 2010-2016 period, exports of creative economy (ekraf) commodities reached 12.86% of the total non-oil and gas exports.

Table 1. Export Value Comparison Creative, Export Total Non- Oil and Gas Exports, 2014-2020

Description (1)		2014 (2)	2015 (3)	2016 (4)	2017 (5)	2018 (6)	2019 (7)	2020 (8)
Export Value	Creative Economy (Ekraf) (billion US$)	15.44	15.87	18,16	19.36	20.67	22.07	23.18
	Non-oil and gas (billion US$)	129.74	162.02	153.04	149.92	141.79	147.89	152.18
	Total Oil and gas and Non-Oil and Gas (billion US$)	157.78	203.50	190.02	182.55	175.98	160.37	164.19
Export Change	Creative Economy (Ekraf) (%)	-	2.77	12.26	6.19	6.33	6.77	5.02
	Non-oil and gas (%)	-	24.88	-5.54	-2.04	-2.64	1.72	3.22
	Total Oil and Gas and Non-oil and Gas(%)	-	28.98	-6.62	-3.93	-3.60	-14.55	3.44
The Role of Cresative Exports	To Non-oil and Gas Exports (%)	11.91	9.79	11.86	12.91	14.57	14.92	15.23
	To total exports (%)	9.78	7.79	9.55	10.60	11.74	13.76	14.11

Source: BPS & Bekraf, 2021.

With the increasing development of internet use in Indonesia and the rise of creative activities occurring today, the internet has become one of the most crucial components in world trade in the creative sector, putting Indonesia in a very advantageous position to capitalize on this opportunity. This can be seen from the export of creative industries in Indonesia, which is growing significantly (Figure 1). In 2014 the export value of the creative industry in Indonesia was only US$15.44 billion, but it continued to increase until it was able to reach US$23.18 billion in 2020. If the export of the creative industry in Indonesia continues to increase, sooner or later exports will continue to increase. Indonesia as a whole will increase. So, it cannot be denied that it is said that the export of creative industries in Indonesia in the future is a great potential that can encourage Indonesian exports.



Source: BPS & Bekraf, 2021

Figure 1. Export Value Development Creative Economy and Total Exports, 2010–2016

Economic variables, such as per capita income, education, and health, are the most commonly utilized determinants of poverty in relation to tourism and poverty reduction. Along with the amounts of tourists, this study looked at

the average duration of schooling and mortality rate as characteristics determining poverty. The average duration of schooling and mortality rate are poverty determinants since they are related to income levels and labor productivity. The higher the level of education will improve skills and get the opportunity to have a decent job, while the high life expectancy of a person has the opportunity to stay away from poverty (Gnangnon, 2021).

According to Presidential Regulation Number 72 of the Republic of Indonesia of 2015, creative economy activities are divided into 16 sub-sectors. These sub-sectors include: architecture; visual communication design; product design; design interior; films, animations, and videos; craft; music; fashion; photography; application and game developers; publishing; advertising; culinary; television and radio; performing Arts; and fine arts The publishing, music and fine arts sub-sectors include three of the five commodities studied by the author in this study. The three sub-sectors are included in HS codes 49, 91, and 97 respectively.

In this case, it should be noted that there are still few studies that examine the effect of internet subscription prices on exports of creative industries which are specified in five commodities, namely commodity prints of newspapers, books, and other printing industry items (HS code 49), Clock (HS code 91), musical instruments (HS code 92), toys (HS code 95), and works of art, collectibles, and antiques (HS code 97) which are commodities that fulfill commodity characteristics with relatively small products, segmented among those with internet access and is not a primary need and want to be purchased online.

The choice of this commodity refers to a survey conducted by AC Nielsen Company about products that have a high demand that you want to buy online, including what their characteristics are and based on the definition from UNCOMTRADE. The value of Indonesia's exports from 2014 to 2020 for the five selected commodities included in this creative industry has a value that is not small, such as in the printing industry (HS code 49) for 410,174 USD, clocks (HS code 91) for 115,469 USD. Musical instruments (HS code 92) had the highest export volume compared to other HS codes, amounting to 5,111,987 USD, followed by toys (HS code 95) at 4,101,034 USD, and then works of art, collectibles and antiques. (HS code 97) for 111,950 USD per 100 persons, resulting in a USD 1,006,3 million increased value of Indonesia's exports to ASEAN member countries. Meanwhile, increasing ASEAN e-commerce activity by one point will raise Indonesia's exports by USD 1,908.7 million.

Table 2. Creative Economy Export Value by Subsector (Thousand US$), 2014–2020

Subsector	2014	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Film	0.08	0.2	0.14	0.12	0.16	0.18	2.1
Craft	4,292,19 6.8	4,390,189 6	4,358,282 7	4,282,512 5	6,363,369 8	7,264,504 8	7,797,661 1
Culinary	594239.5 5	863.116.3	960,895 4	956,934.0	1.081.180.1	1,17,955.6	1,260,503 6
Music	14.6	2.5	20.4	56.9	10.6	29.0	14.5
Fashion	8,584.3 25.1	10,356,88 2.4	10,084,40 7.5	10,593,40 8.8	10.698,83 5.3	10,895,217 7	10,901481 5
Publishing	28,602 7	22,210.7	21,200.0	27,159.6	15,983.6	22.334.5	26,166.8
Art	5,631.9	8,943.7	14,573.6	10,556.6	5550.6	3,035.7	3,039.9

Source: BPS & Bekraf, 2021.

There are 3 reasons for the occurrence of trade cooperation, according to Suranovic (2010), the first is the difference in technology. The gap in ownership of technological resources forces countries that have poor technological resources to engage in trade cooperation. Then there are differences in the resources of the supporting factors (resource endowments) of a country causing the country to depend on regional economic development on the demand for commodities produced by these natural resources so that trade becomes an important economic activity. Third, the existence of differences in demand is the reason for trade.

Trade becomes vital cooperation to meet the demands of countries that trade with each other. The presence of economies of scale in production is one factor in the occurrence of trade. When the production process has reached an efficient level, the volume of output production will increase. This occurs simultaneously with the decline in the cost of production per unit. Then the trading motive becomes stronger. The presence of government policies is the last reason for trade. Government policies are often in the form of policies that trigger the enthusiasm of the economy so that the desire to trade is higher

Trade infrastructure is one of the practical applications of trade facilitation which aims to improve export and import performance. According to Portugal-Perez & Wilson (2012), trade facilitation can be defined as a reduction in transaction costs in addition to a reduction in tariffs, as well as a simplification of customs regulations and administrative procedures linked to international trade agreements. Trade facilitation reform is not only carried out by one party by the state to improve export performance, but trading partner countries must also have a desire to improve trade patterns and trade relations between countries.

In the execution of trade facilitation, the trading infrastructure is separated into two dimensions: the hard dimension, which is linked to infrastructure, and the soft dimension, which is related to customs difficulties, intangible institutional aspects, transparency, and the business environment (Portugal-Perez & Wilson, 2012). Table 3 shows the primary markers for soft and hard dimensions.

Table 3. Table of Main Infrastructure Indicators

Hard Infrastructure	*a. The Physical Infrastructure which serves as a measuring tool to calculate the quality and level of development of airports, ports, and trains.* *b. The Information and Communications Technology (ICT) which contains indicators of the availability and access, use, and absorption of ICT. The extent to which ICT is effective in enhancing efficiency and productivity as well as lowering transaction costs is defined as its utilization.*
Soft Infrastructure	*a. Border and Transport efficiency is a measure of the level of efficiency of customs and the use of domestic transportation in the allocation of time expenses, as well as the number of papers necessary in the administration of export and import operations.* *b. The Business and Regulatory Environment measures policy and regulatory development as well as openness. The indicators that underpin this include government transparency and anti-corruption initiatives.*

Source: Perez & Wilson, 2010.

There are 2 studies conducted by C. Freund & Weinhold (2000) and (2004), that are related to each other. In the first study, the outline examines how the influence of internet facilities on international trade. This study uses two groups of variables, namely macroeconomic

variables and ICT variables. The result of the study shows that market share, GDP, population, and economic distance have a significant effect on increasing exports, even on the ICT variable, the internet is defined by private services in the form of Web Host connectivity which also has a significant effect on increasing exports.

The second study, done in 2004, was based on the first study's findings to demonstrate that the study's findings may be applied to the case study of Bolivia. As a result, the Internet considerably boosts Bolivia's worldwide trade via expanding Web Host connectivity. These findings show that a 10% increase in the number of Web Hosts in Bolivia will improve trade by around 1% in 1998 and 1999. Freund & Weinhold (2002), conducted a more extensive study concentrating on the economic distance variable to examine the impact of the Internet on international trade. The variables used in this study are GDP, population, internet (defined by Web Host), exchange rate, and economic distance. The results demonstrate that a 10% rise in the number of Web Hosts in a country produces a 0.2 percent rise in the export growth. The study also discovered evidence that trade growth is weaker in more distant countries.

In addition, Clarke (2008), also investigates how the internet influences the export competitiveness of low and middle-income enterprises. This study uses the variables of GDP per capita, Foreign Direct Investment, the value of exports of goods and services, population, and economic distance, as macroeconomic variables and cable internet network ownership per 100 people for the ICT variable. Clarke found a strong correlation between the availability of internet access and export performance, where companies with internet access tend to export more.

In this article, we know for a gap in previous study. where the ICT variable in several previous studies still defines the internet variable only to the extent of how much internet coverage per population is used as a variable affecting international trade. In our opinion, this is not quite right because there is no cost aspect in international trade.

For this reason, in this article we change the definition to internet cost instead of internet coverage per resident. This research will focus on trade in the creative economy where the role of the internet is very large in bringing together sellers and end users. This article also limits the effect of internet fees to only pp 18 of Indonesia's largest trading partner countries for creative economy trade (United States, Australia, Netherlands, Belgium, China, Hong Kong, India, United Kingdom, Japan, Germany, Canada, South Korea, Malaysia, France, New Zealand, Singapore, Thailand, and Vietnam).

METHOD

The purpose of this research is to examine the impact of trade facilitation in the form of the internet as a trade infrastructure characterized by internet subscription pricing on Indonesian trade with 18 trading partners based on HS codes: 49, 91, 92, 95, and 97 in 2008-2020. To meet the bjectivees, the analytical technique used is panel data regression analysis.

Secondary data in the form of panel data (pooled data) was used in this study, which is a collection of time-series data from 2008 to 2020 and cross-section data from Indonesia and 18 trading partner nations. Table 4 also shows the data sources for the variables considered in this investigation.

The panel data regression technique is used in this study. Panel data is a regression technique that combines time series with cross-section data. According to Gujarati (2004), panel data gives more meaningful, diversified data while enhancing the degree of freedom. According to

Gujarati (2009), there are three types of panel data regression models: PLS (Pooled Least Square), FEM (Fixed Effect Model), and REM (Random Effect Model). The definition and model of panel data regression are as follows.

Table 4. Data Source

Variable	Data Source
Export of Creative Industry Goods	United Nations Commodity Trade (UN-COMTRADE)
Exporter's GDP	World Bank
Importer's GDP	
Exporter Population	
Importer Population	
Exporter Internet Subscription Prices	International Telecommunication Union (ITU)
Importer Internet Subscription Prices	
Distance	*Center d'Etudes Prospectives et d'informations Internationales* (CEPII)
FTA	The official website of the Ministry of Trade of the Republic of Indonesia

Panel data regression models, such as PLS, FEM, and REM, were used in this work. The model in this study is as follows:

$$InX_{ijt} = \alpha_o + \alpha_1 In(GDP_{it}) + \alpha_2 In(GDP_{jt}) + \alpha_3 In(Pop_{it}) + \alpha_4 In(Pop_{jt}) + \alpha_5 In(Dis_{ijt}) + \alpha_6 In(Internet_{it}) + \alpha_7 In(Internet_{jt}) FTA + u_{it} \quad (1)$$

InX_{ijt} = Export of creative industrial goods from country i to country j in year t.

$InGDP_{it}$ = GDP of the exporting country in year t.

$InGDP_{jt}$ = GDP of the importing country in year t.

$InPop_{it}$ = Total population in the exporting country in year t.

$InPop_{jt}$ = Total population in the importing country in year t.

$InDis_t$ = The distance between the exporting country and the importing country in year t.

$InInternet_{it}$ = Internet Subscription Price of the exporting country in t.

$InInternet_{jt}$ = Internet Subscription Price of the importing country in t.

FTA = A dummy variable with a value of 1 if the exporting and importing countries have a free trade cooperation agreement, and a value of 0 if the opposite is true.

u_{it} = Error term.

RESULTS AND DISCUSSION

Table 5 present the summary statistics of our variables of the models.

Table 5. Summary Statistic

Variabel	n	Mean	Std. Dev	Min	Max
*Export*ij *HS Code* 49	358	6,90611	1,65309	2,63906	1,07654
*Export*ij *HS Code* 91	313	5,34472	2,71176	0,00000	1,22021
*Export*ij *HS Code* 92	345	7,64429	2,87748	0,00000	1,18857
*Export*ij *HS Code* 95	360	8,16700	2,16363	0,00000	1,26017
*Export*ij*HS Code 97*	340	4,99839	1,97234	0,00000	1,05038
*GDP*ij	360	27,58013	0,98327	25,31970	30,60243
*Population*ij	360	18,54159	1,37991	15,26473	21,04997
*Internet*ij	360	1,01464	0,79594	-2,20728	2,53845
Distance	360	8,24893	1,36514	3,78419	9,61260
FTA	360	0,52778	0,49992	0,00000	1,00000

Source: Author calculation

Table 5 shows that an increase in population will make the demand for goods and services higher and will reduce exports, while in importing countries, the population shows demand for goods from other countries. In line with the total population, internet subscription price data ($Internet_{ij}$) which describes the level of internet development also experienced an increase in price. This can be seen from the maximum value of $Internet_{ij}$ which is 2.54.

The results of panel data regression in table 6 estimation using PLS, FEM, and REM models. In this work, panel data regression was followed by three types of tests to select the optimal model: the Chow test, the LM test, and the Hausman test. The Chow test results indicate that the value of Prob > F is 0.0000, which is less than the value of (5% = 0.05), hence the first model chosen in this study is Fixed Effect Models (FEM).

The LM test results reveal a probability value (1.000) larger than 5%, indicating that the model chosen in the LM test is Pooled Least Squares (PLS). The Hausman test results demonstrate that chi-square (0.0000)'s probability value is less than the value of (0. 00000,05), indicating that the FEM model is superior to the REM model. This study used the Fixed Effect Model (FEM) based on the three tests.

Based on the Hausman test results, the P-value (0.0000) < 5% in HS code 49, thus Ho (using the Random Effect Model) is rejected. Meanwhile, based on the Hausman test results for HS codes 91, 92, and 95, respectively, the P-value (0.4496) < 5%, P-value (0.3028) < 5%, and P-value (0.8889) < 5%, Ho (using the Random Effect Model) is not rejected. While the Hausman test on HS code 97 yielded a P-value (0.0010) < 5%, Ho (using the Random Effect Model) is rejected.

Table 6. Hausman Test Result

	Chi-sq . probability	
	Hausman test	**Approach**
HS Code 49	0.0000	FEM
HS Code 91	0.4496	BRAKE
HS Code 92	0.3028	BRAKE
HS Code 95	0.8889	BRAKE
HS Code 97	0.0010	FEM
Total Export	0.9696	BRAKE

Source: Data processed with STATA 14.0

Table 6 summarizes the findings of the panel data estimation. The Fixed Effect Model (FEM) based on the Hausman test and the Random Effect Model (REM) based on the LM test are utilized. Based on the calculation results, the independent variables such as the exporting country's GDP, the importing country's GDP, distance, and FTA produce results with varying significance between the models for the export of printing industry commodities, clocks, musical instruments, toys, and works of art.

The R-Square value in the first model is 0.16310, indicating that variations in the independent variable can explain 16.31% of the HS code 49 for exports of items with HS code 49 from 2008 to 2017. These results show that the capacity to modify the independent variables is pretty excellent, with the remaining 83.69% being factors outside the model or errors affecting the variables. Partially, the importing country's changeable GDP and the exporting country's population have a considerable impact.

There are no variables in the second model that have a significant impact on changes in the export of hours. The variable GDP of the importing country, the population of the importing country, and the population of the exporting country all have a substantial effect on the export of musical instruments in the third model. Only the GDP and population of the importing country have a substantial effect on the export of toy items in the fourth model. The

factors of the importer country's GDP, the exporting country's population, and the exporter country's internet price have a substantial effect on art, collectibles, and antique commodity exports in the fifth model.

The importing country's GDP, the exporting country's GDP, the importing country's inhabitants, and the exporting country's internet membership price all have a substantial effect on overall exports in the sixth model.

Table 7. Pooled Least Squares Test

Independent Variabel	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Book Export (49)	Export Clock (91)	Music Intrument Export (92)	Toys Export (95)	Artwork Ezport (97)	Export Ekraf
	FEM	BRAKE	BRAKE	BRAKE	FEM	BRAKE
GDPi	0,74631*	0,95168*	-0,05534	0,23325	1,17051*	0,27993***
	(0,14863)	(0,26849)	(0,18888)	(0,16436)	(0,17213)	(0,14434)
GDPj	0,513244*	0,59333**	2,00852*	1,43305*	1,52381*	1,35838*
	(0,14612)	(0,27143)	(0,19656)	(0,16436)	(0,16958)	(0,14434)
Popi	-0,26649**	-0,52697*	0,71046*	0,16175	-0,60493*	0,11763
	(0,09299)	(0,16202)	(0,12216)	(0,10423)	(0,10728)	(0,09153)
Popj	-0,1127	-0,03815	-0,91295*	-0,72177*	-0,94029*	-0,58314*
	(0,09278)	(0,16602)	(0,11994)	(0,10423)	(0,10556)	(0,09153)
Pinterneti	-0,4661	0,02361	0,42681*	0,06277	-0,19122*	0,09502**
	(0,04003)	(0,07005)	(0,05388)	(0,04537)	(0,04607)	(0,03985)
Pinternetj	-0,14740*	-0,02914	-0,01813	-0,07041	-0,2348*	-0,06045
	(0,03995)	(0,07776)	(0,05242)	(0,04537)	(0,04448)	(0,03985)
Distance	-0,30065*	-1,09383*	0,34105**	-0,00588	-0,33632*	-0,11337
	(0,08304)	(0,19201)	(0,12389)	(0,93960)	(0,09708)	(0,08251)
FTA	-0,23812	-0,15002	-0,03150	-0,20198	-0,02676	-0,24139
	(0,16654)	(0,29033)	(0,21903)	(0,18867)	(0,18918)	(0,16569)
Constant	-17,4900*	-17,6160**	-41,1963*	-27,2230*	-36,3774*	-26,21156*
	(4,62403)	(8,27938)	(5,96482)	(5,15326)	(5,37295)	(4,52568)
Number of Observations	358	313	345	360	340	360
R Square Nilai	0,1352	0,1423	0,5205	0,3483	0,2564	0,3499
Prob>F Prob>chi	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

*Note : The number in brackers is the standard error value. Significance: ***p<0.0001, **p<0.05, *p<0,1.*

The t-test or partial test is used to test each independent variable whether or not it affects the dependent variable as seen from the probability value of the significance value ($\alpha = 0.05$).

Column 1 of the results in Table 6 shows the results of the t-test estimation on the independent variable of the number of shipments of printed books, periodicals, and other items from the printing sector with HS code 49. The variables influencing commodities HS code 49 exports from 2008 to 2020 include the exporting country's GDP, the total population the importing country, the exporting country's online price, and the importing country's internet price.

The GDP of the importing nation, the exporting nation's population, the distance between nations, and Free Trade Agreements, on the other hand, have a less substantial impact on the volume of exports of goods with the HS code 4.

Table 8. Panel Data Estimation Results

Independent Variabel	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Book Export (49)	Export Clock (91)	Music Intrument Export (92)	Toys Export (95)	Artwork Ezport (97)	Export Ekraf
	FEM	BRAKE	BRAKE	BRAKE	FEM	BRAKE
GDPi	-0.29910	0.25818	0.02965	0.14170	0.11308	0,28569
	(0.28856)	(0.46581)	(0.29328)	(0.22007)	(0.54928)	(0.13514)
GDPj	1,70977***	-0.29451	1,24112***	1.10841***	1.35115**	1,08264*
	(0.28724)	(0.44955)	(0.29653)	(0.22007)	(0.54549)	(0.13514)
Popi	-6,38069***	-016489	0,83089**	0.26344	-15.74456***	0.11666
	(2.37787)	(0.415531)	(0.35091)	(0.27018)	(4,41293)	(0.22928)
Popj	1.24453	0.41016	-0.74353**	-0.74353**	-0.5650**	0.16670
	(2,37975)	(0.41424)	(0.35133)	(0.27018)	(4,4193)	(0.22928)
Pinterneti	0.10041	0.16358	0.10511	0.12955	0.9109488	0.09053***
	(0.20352)	(0.17416)	(0.13187)	(0.10006)	(0.37903)	(0.0511)
Pinternetj	-0,29567	0.14594	-0,05251	0.03346	0.31594	-0,55283
	(0.20277)	(0.17362)	(0.13193)	(0.10006)	(0.37346)	(0.05211)
Distance	0.00000	-0,12526	0.20049	0.06964	0.00000	-0.02851
	ommites	(0.37014)	(0.31938)	(0.24558)	ommited	(0.05211
FTA	-0.01956	0.1141	0.05508	0.06210	0.15651	0.00391
	(0,07002)	(0,16231)	(0.09278)	(0.06860)	(0.13245)	(0.04465)
Constant	63,97199	1.31546	-31.16206***	-21,92285***	249,87390**	-20,36673*
	(49.89591)	(13.87662)	(10,40458)	(7.94754)	(91.96011)	(6.15275)
Number of Observations	358	313	345	360	340	360
R Square Nilai	0.16310	0.02800	0.08430	0.17740	0.09440	0.3377
Prob>F Prob>chi	0.00000	0.60570	0.00000	0.00000	0.00010	0.0000

*Note : The number in brackers is the standard error value. Significance: ***p<0.0001, **p<0.05, *p<0,1.*

Table 8 displays the estimation outcomes of the t-test on the independent variable quantity of clock exports with HS code 91. The population of the importing country, the population of the exporting country, the internet pricing of the exporter country, and the distance of the country are factors that determine the volume of exports of goods with HS code 91 from 2008 to 2017.

On the other hand, the GDP of exporting and importing countries, internet prices of importing countries, and FTAs have no significant effect on the number of exports of HS code 91 commodities.

Table 8 also shows the estimate outcomes of the t-test on the independent variable of the quantity of musical instrument exports with the HS code 92. The GDP of exporting and importing

countries, population, online prices of exporters and importers, and distance between countries are all factors that have an impact on the volume of HS code 92 commodity exports from 2008 to 2020. However, only FTA has a less substantial impact on the volume of exports of goods with HS code 92.

The estimate outcomes of the t-test on the independent variable of the quantity of toys exported under the HS code 95 also displayed in table 8. The GDP of exporting and importing nations, population, internet pricing, and distance between countries are all factors that have an impact on the volume of HS code 95 toys exported between 2008 and 2020. FTAs and internet pricing for exporting nations, on the other hand, have less of an impact on the volume of shipments of goods with the HS 95 code.

Table 8 also displays the results of the t-test estimation on the independent variable of the amount of exports of artwork, collectibles, and antiques with HS code 97. Between 2008 and 2020, the amount of exports of artwork, collectibles, and antiques with this code varied depending on the GDP of exporting and importing countries, the population of importing countries, and online prices in exporting countries. On the other hand, the size of the exporting country's population, the importing country's internet pricing, the distance between the two countries, and FTAs have a less significant effect on the number of exports of items with the HS code 97.

The estimated outcomes of the t-test on the independent variable total export volume also shown in table 8, in which the GDP of exporting and importing nations, the population of exporting nations, and the internet pricing of importing nations are all factors that have an impact on the aggregate figure from 2008 to 2020. On the other hand, the size of the exporting country's internet market, the distance between the two nations, and FTAs have a less substantial impact on the overall volume of exports.

With the exception of the export of watch commodities, the estimation findings for all models demonstrate that the GDP of the exporting nation has a considerable and favorable impact on practically all exports of creative industrial items evaluated. These findings suggest that, with the exception of the export of watch commodities, an increase in a nation's GDP will also have an impact on growing trade in creative industrial items. Because the GDP test results of the exporting country have a major impact on the overall export variable, it is also evident from the consistency of the test results with the overall export variable that the GDP variable of the exporting country exhibits consistent results.

The demand side of the nation that will purchase the commodities can be seen in the GDP of the importing nation. With the exception of printed books, newspapers, and other products from the printing industry, as well as exports of watch commodities, the estimation results demonstrate that the GDP of the importing country has a positive and significant impact on almost all exports of goods from the creative industries. This indicates that when the importing country's GDP rises, so will the export of creative industry goods, with the exception of printed books, newspapers, and other products from the printing sector, and the export of watch commodities. The consistency of the test results with the overall export variable also demonstrates that the importing country's GDP variable produces consistent results because the importing country's GDP test results have a significant impact on the overall export variable.

The large population of exporting countries means that the demand for goods in the domestic market will increase so that the country will prioritize domestic needs before exporting. This is consistent with the estimation results, which reveal that the exporting country's population variable has a negative and substantial effect on the export of watch commodities. However, the estimation findings suggest that the exporting country's population variable has a positive and significant link with the variables of musical instrument exports and toy exports. Meanwhile, the population variable of the exporting country has no substantial effect on the shipment of printed books, newspapers, and other products from the printing industry, as well as the quantity of exports of works of art, collectibles, and antiques. It can also be seen that the consistency of the test results with the overall export variable demonstrates that the exporting country's population variable exhibits consistent results because the test results of the exporting country's population have a substantial effect on the overall export variable.

The estimation results demonstrate that the importing country's population has a negative and significant impact on exports of musical instruments, toys, and works of art. This demonstrates that as the importing country's population grows, so will the export of these items. Furthermore, the population of importing countries has a large and favorable impact on exports of other creative industrial goods, such as printed books, newspapers, and other printing industry products, as well as exports of watch commodities. It can also be seen that the consistency of the test results with the overall export variable shows that the population variable of the importing country shows inconsistent results because the results of the GDP test of the exporting country have no significant effect on the overall export variable.

According to the estimation results, the price of internet subscriptions in exporting nations has a favorable and significant effect on exports of printed books, newspapers, and other printing sector products, exports of clock commodities, and exports of musical instruments. In this example, an increase in the cost of internet connections could result in an increase in these exports. However, the estimation results show that the internet subscription price does not affect exports of other creative industry goods, namely exports of toys and exports of works of art, collectibles, and antiques. It can also be seen that the consistency of the test results with the overall export variable demonstrates that the exporter country's internet subscription price variable produces inconsistent results because the test result for the exporter country's internet subscription price has no significant impact on the overall export variable.

The estimation results suggest that the importing country's internet subscription price has a large and favorable effect on exports of musical instruments, toys, and works of art. These results explain that an increase in internet subscription prices in a country can affect the increase in the exports of creative industry goods. However, the estimation results suggest that exports of printed newspapers, books, and other printing industry products have a considerable and negative effect on the price of internet subscriptions in the importing country. Meanwhile, the export of watch commodities does not have any relationship to the internet subscription price of the importing country. It can also be seen that the consistency of the test results with the overall export variable shows that the internet subscription price variable in the importing country shows consistent results because the internet subscription price test

results have a significant effect on the overall export variable.

One of the variables that plays a vital part in the gravity model is the distance variable. International trade suffers as a result of distance (Husted & Melvin, 2010: and Appleyard & Field, 2014). Distance has a substantial and negative effect solely on watch commodity goods exports, according to the results of the regression on the five models in this study. Distance, on the other hand, has a considerable and favorable effect for musical instrument and toy exports. The estimation results suggest that exports of printed newspaper, books, and other printing sector products, as well as exports of art goods, have no significant effect on distance. It can also be seen that the consistency of the test results with the overall export variable shows that the distance variable shows consistent results because the distance test results have no significant effect on the overall export variable.

Based on the regression results in the five models, the FTA variable which is a dummy that shows a value of 1 if the combination of countries has a free trade cooperation agreement and a value of 0 otherwise shows an insignificant result on trade. It can also be seen that the consistency of the test results with the overall export variable shows that the FTA variable shows consistent results because the FTA test results do not significantly affect the overall export variable.

CONCLUSION

From the test results, Indonesia's trade relations with 18 trading partner countries with the variables used in this study resulted in an increase in exports in several commodities such as HS codes: 91, 92, and 95. Internet cost have an impact on the export of creative industry goods, and countries that act as exporters will have a favorable and large impact on the export of printed books, newspapers, and other printing industry products (HS Code 49), exports of watch commodities (HS Code 49. 91), and export of musical instruments (HS Code 92).

Internet cost in countries that act as importers have a positive and significant impact on exports of musical instrument goods (HS Code 92), exports of toys (HS Code 95), and exports of works of art (HS Code 97). In contrast, internet subscription fees have a negative and severe influence on printing industry exports of printed goods, newspapers, and other items (HS Code 49).

Other variables in this study (GDP, population, and distance) have a significant positive or negative relationship with the export of creative industry goods. While the FTA dummy variable does not have any effect on the export of creative industry goods.

With the influence of internet cost on the export of creative industry goods, the development of communication technology needs to be improved so that the influence of the internet on efforts to increase trade can increase. The export of creative industrial items, in particular, is the subject of this research. Other factors that can aid trade facilitation, such as the internet, must be enhanced in order to boost exports.

The increase in GDP also needs to be considered because, some exports of creative industry goods, such as commodity prints of books, newspapers, and other products from the printing industry (HS code 49), musical instruments (HS code 92), toys (HS code 95), and works of art, collectibles, and antiques (HS code 97), This variable has a favorable and considerable impact on the increase in creative industry exports.

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