Export Competence of Cultural Goods: A Structural Gravity Analysis of the BRICS Trade

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Abstract

The BRICS economies contribute a substantial portion of global trade. However, the share of cultural export in their total exports has been declining over the past two decades. In this context, the current study examines cultural exports of BRICS compared to their aggregate exports using structural gravity model. For empirical estimation, we apply Poisson Pseudo-Maximum Likelihood High Dimensional Fixed Effects (PPMLHDFE) estimator for annual bilateral exports data. The results show that, as compared to non-cultural aggregate exports, exports of creative industries are more sensitive to geographical distance between countries. Nevertheless, positive effect of the similarity between trading partners in terms of language commonality, colonial relationship and shared border is more pronounced in case of cultural exports. Furthermore, we find that while the regional trade agreements promote exports in general, they remain inconsequential in case of cultural exports of BRICS. Additionally, the study uses cultural exports as a proxy for cultural proximity and finds that bilateral cultural exports facilitate the exports of non-cultural exports.

Keywords: Creative industries, Cultural exports, BRICS, Gravity, PPML

JEL Classification: F10, F14, Z10

Introduction

UNESCO (2005, p. 12) states trade in cultural goods as "the exports and imports of tangibles and intangibles conveying cultural content that might take either the form of a good or a service". It also includes "the goods and services which are required to produce and disseminate such content […] as well as ancillary services even if they are only partly cultural in their content". There are four broad groups namely heritage; publishing and printed media; visual and performing arts; and functional creations including creative and design services (UNCTAD, 2013). The global market for creative

goods[1] is expanding: it offers employment to over 7 million people across the European Union (European Commission, 2021); while around 13 percent of employment is comprised of creative industries across major cities worldwide (World Bank, 2021). Apart from the trade gains, the cultural exports have geo-economics significance, particularly for countries such as BRICS with a considerable role in world economy.

The term BRICS was coined by the by Goldman Sachs Group for the four countries expected to reshape the world economy– Brazil, Russia, India and China (Sachs, 2001). Later, South Africa was included in the bloc in 2010. Since its inception the BRICS countries are considered as a bloc of emerging economies which has a substantial potential to affect the world economy. Currently, this bloc contributes a substantial portion of global trade. Particularly, the exports of China grew around 9 times over the past two decades. Cultural exports aggregated for the BRICS valued 37.6 billion US$ in 2001 constituting 7.6 percent of the total exports. However, the shared of cultural exports reduced to 5.2 percent in 2019; see Table 1. While the share of cultural exports for India is slightly increased, it is almost halved for Brazil, Russia, and China.

Table 1. Cultural exports and total exports of BRICS

	Exports in 2001			Exports in 2019			Growth in Exports	
	Total	Cultural		Total	Cultural		Total	Cultural
	Value	Value	Share	Value	Value	Share	Times	Times
Brazil	58	1.2	2.1	224	2.1	0.9	3.9	1.8
Russia	43.9	1.1	2.5	323.3	2	0.6	7.4	1.8
India	99.9	4.2	4.2	422.8	24.3	5.7	4.2	5.8
China	266.1	30.7	11.5	2,498.6	153.9	6.2	9.4	5.0
South Africa	26	0.4	1.5	90.4	0.9	1.0	3.5	2.3
BRICS (aggregated)	493.9	37.6	7.6	3,559.0	183.3	5.2	7.2	4.9

Note: Value of exports is stated in billion US$; share is computed as percentage share of cultural export out of the total exports of the country for the given year; and the value of otal (cultural) exports in 2019 over its value in 2001 gives the growth. Source: International Trade Centre Trade Map database.

The regional trade agreements have gained an important role of trade creation in the modern world economy (De Silva & Lee, 2018). Under a regional trade agreement, tariff is lower, which in turn facilitate the cross-border movement of trade, capital, labor, and migration, among others. Consequently, it deepens regional and economic integration between associate countries (Kahouli & Maktouf, 2015). Thereby, the regional trade agreements have been flourished exponentially over the past two decades: compared to 81 RTAs in 2000, the cumulative number of RTAs in force worldwide is 355 in 2021(WTO, 2022). According to the RTA database of the World Trade Organization, India is currently participant of 17 RTAs; China, Russia, and Brazil members are 16, 12, and 9 RTAs, respectively; and South Africa has 7 RTAs in force. Therefore, it is interesting to examine the influence of these RTAs on their cultural exports. In terms of trade liberalization, there are two contrasting

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[1] The creative industries include advertising, architecture, photography, music, various performing arts, and publishing. The creative economy encompasses all the parts of the creative industries, including trade, labour and production (UNCTAD, 2022).

viewpoints: against the supporters of free trade, the supporters of a cultural exclusion consider that cultural goods reflect countries' identities and therefore should not be treated as other merchandized goods to an international regularization of perceptions and behaviors. There is a body of literature related to the impact of RTAs on trade; however, the findings are rather inconclusive. While most of the studies prove the trade facilitation role of the trade agreements (e.g., Freeman & Pienknagura, 2019; Jean & Bureau, 2016), other studies argue that most existing FTAs fail in their trade creation role. Nevertheless, the impact of the RTAs on cultural exports remained under-studied. Literature on the cultural exports is rather scant, particularly quantitative analysis such as treatment of creative exports in the gravity framework.

Given this, the current study examines cultural exports of BRICS economies compared to their aggregate exports. We apply structural gravity using Poisson Pseudo-Maximum Likelihood High Dimensional Fixed Effects (PPMLHDFE) estimator for annual bilateral exports data over the period 2003-2018. An interesting contribution of this study is that it compares the trade facilitation role of regional trade agreements of the BRICS countries on cultural and non-cultural exports. Given the importance of the BRICS countries in the global economy, the finding of the study illustrates the role of creative industry to accelerate economic activity. Furthermore, the impact of cultural proximity on export performance is examined. This is empirically treated in this study by adding to the traditional measures of cultural proximity e.g., language, commonality, shared colonial relationship, and contiguity; and trade in cultural goods as a proxy for proximity in cultural tastes.

The paper proceeds as follows. Section 2 outlines literature related to creative industries and cultural exports. Empirical estimation approach and the data sources are described in Section 3, followed by results discussion in Section4. Section 5 concludes.

Literature Review

The creative economy foster innovation, diffusion of knowledge across other sectors, and thus yields valuable contribution to national economy (UNCTAD, 2018). The creative industries across the world have demonstrated not only resilience in the post 2008 financial crisis but robust growth in some cases. This indicates the potential of future investment in this industry. The definition of creative industries varies across countries. The idea was initiated in Australia and United Kingdome in 1990s with the development of a map of creative industries (DCMS, 2001). In general, creative economy includes various industrial sectors such as advertising, architecture, art, crafts, fashion, music, performing arts, publishing, research and development, and video games Howkins (2001). With a slight distinction, the concept cultural industries comprise only core (primary) industries, namely broadcasting, advertising and marketing, entertainment industries, print and electronic publishing (Hesmondhalgh, 2002). In a recent work, the UNCTAD (2013) categorizes creative industries into four broad groups namely visual and performing arts; heritage; publishing and printed media; and functional creations including creative and design services.

The significance of the creative industry is evident by the fact that the global market for creative commodities has been expanding rapidly as its production value doubled in thirteen years from $208 billion in 2002 to $509 billion in 2015 (UNCTAD, 2018). The economic significance of creative industries is revealed from the fact that it offers job opportunities to 7.4 million people across the EU in 2019 constituting 3.7 percent of the total employment (European Commission, 2021). Around 13

percent of city employment is comprised of creative industries across the major cities worldwide (World Bank, 2021).

The recent emergence of creative industries as an important element in the economic and cultural domain has been reflected in the research literature. There are several studies examine various aspects of the creative industries. For instance, they discussed the linkage between creativity and research & development; and the output of creative industry to the economy of United Kingdom. A study commission by the European Cultural and Creative Industries Alliance discusses the value of creative industries in the wider economy (Frontier Economics, 2012). The study suggests that the challenges in exports of creative products stem from the prevalence of small firms, feeble intermediaries and issues pertaining to intellectual rights protection.

The creative industries are relevant in the promotion of Europe's diverse cultural identity and European values (European Commission, 2021). In fact, cultural policy is not isolated from a country's geopolitical position and its ambitions in the world. In this regard, Jessop and Sum (2018) discuss China's Belt and Road Initiative form the geo-economics and cultural political economy perspective. Similarly, worldwide appeal of the American leisure and entertainment industries and their globally famous pop icons make it a valuable instrument of American soft power (Fraser, 2015). Furthermore, Otmazgin (2012) describes how Japan has used cultural policy to further its geopolitical goals and more basically how it has viewed the role of "culture" in the context of its relations with Asian neighbors.

The influence of cultural distance on investment and trading is also evident in literature; however, the findings are inconclusive. Cultural proximity improves trade not only in homogenous goods but also in culturally distinguished goods (Tadesse & White, 2010). Felbermayr and Toubal (2010) argue that culturally similar nations tend to buy differentiated goods to a greater extent compared to countries which are culturally more distant. Similarly, Lankhuizen and de Groot (2016) state that cultural differences reaching a certain threshold begin to hinder bilateral trade flows. In relation to investment, Quer et al. (2017) find decremental effect of cultural difference for the outward foreign direct investment of India; however, absence of such an effect in case of China can be attributed to the relatively speedy internationalization process of Chinese enterprises. Niu (2017) applied gravity model to investigate cultural exports of China. The study finds that cultural distance between Beijing and its trade partners does not hinder cultural exports as the consumers in the high value export markets show preference for the oriental culture. Nevertheless, reducing language barriers can further improve the export performance.

The creative industries have also been discussed in relation to trade. For instance, DiPietro and Anoruo (2006) find that a positive relationship between a country's creative activity and export performance. In this context, innovation, technology, technology transfer and business startups may help to enhance exports performance of an economy. Another study by Disdier et al. (2010) applied gravity estimation approach to examine bilateral trade in cultural goods and investigate its determinants. Furthermore, they analyzed the impact of cultural proximity on bilateral trade intensity. The study finds significant role of cultural exports on aggregate trade of the economy. These findings imply development of creative industries can be useful strategy to enhance export performance of the country. Similarly, Dong and Troung (2020) analyze cultural exports of Vietnam using the gravity framework. Their finding includes the positive effect of market development and scale economies of the trading partners. Furthermore, the

country is subject to export-agglomeration economies in the creative sector with heterogeneous effect of the model parameters across various products. Second, the study shows a positive effect of cultural similarity on aggregate exports of the country. Based on the critical literature review and research gap, the following hypotheses have been formulated:

H₁: Do the regional trade agreements (RTAs) equally facilitate the exports of cultural goods as compared to other industries?

H₂: Does cultural proximity between trading-partners promote exports?

Methodology
Empirical estimation approach

Tinbergen (1962) and Ravenstein (1885) pioneered the gravity trade model analogical to Newtonian law of gravity: bilateral trade is directly proportional to economic masses of trading partners and inversely proportional to the geographical distance between them. However, earlier gravity models lacked theoretical foundation until Anderson (1979) formulated model based on elasticity of substitution by origin and constant elasticity of substitution expenditures. Later, the Armington-CES approach of Anderson and Van Wincoop (2003) became the benchmark for the current gravity trade analysis. The model is essentially based on two multilateral resistance terms: the outward multilateral resistance captures the relative resistance of exporting to different destination markets; while the inwards multilateral resistance implies the relative resistance of importing from different source markets. Bilateral trade cost between the country pair is attributed to various trade policy and geographical variables, such as tariffs, bilateral distance, and the existence of RTAs.

Despite its numerous applications, the traditional log-transformed model yields biased and inconsistent estimates (Yotov et al., 2016, p.17) due to four major challenges: the difficulty of measuring multilateral resistance terms, dealing with the zero trade flows, existence of heteroscedasticity, and a proper treatment for the endogeneity of trade policy.

The multilateral resistance terms are theoretical constructs which are not directly observable. However, they are captured by including exporter-time fixed effects and importer-time fixed effects (Novy, 2013; Olivero & Yotov, 2012). Second, the traditional ordinary least square estimator estimation does exclude zero trade flows during the log-transformation. Moreover, this estimator does not cater the presence of heteroscedasticity in trade data. This challenge is resolved though the Poisson pseudo maximum likelihood (PPML) estimation, an alternative approach is popularized after the seminal studies Silva and Tenreyro (2006) and Silva and Tenreyro (2011). More recently, Correia, Guimaraes, and Zylkin (2020) offers Poisson pseudo maximum likelihood with high-dimensional fixed effects for the computation of gravity equation; and this estimator effectively deal with the non-existence problem (Santos Silva & Tenreyro, 2022). Concerning the endogeneity of trade policies such as RTAs, the instrumental approach followed by multiple studies is not effective (Baier & Bergstrand, 2007). Instead, inclusion of country-pair fixed effects accounts for the unobservable linkages between the endogenous trade policy covariate and the error term in gravity regressions (Egger & Nigai, 2015).

As a starting point, we specify a traditional gravity model including GDPs of exporting and importing country, bilateral geographical distance between countries, language commonality, colonial relationship, and shared border. Moreover, we add a variable on regional trade agreements. The inclusion of these variables in gravity model is well discussed Yotov, Piermartini, & Larch, 2016). Equation 1 below presents gravity estimation with traditional variables.

$$\text{Exports}_{ijt} = \exp[\alpha_1 \ln(\text{GDP}_{it}) + \alpha_2 \ln(\text{GDP}_{jt}) + \alpha_3 \ln(\text{Distance}_{ij}) + \alpha_4 \text{Language}_{ij} + \alpha_5 \text{ComCol}_{ij} + \alpha_6 \text{Contiguity}_{ij} + \alpha_7 \text{RTA}_{ijt} + \beta_i + \delta_j + \gamma_t] + \varepsilon_{ijt} \qquad (1)$$

The dependent variable is exports of an origin *i* to a destination *j* during year *t*. Note that the exports are taken at level which allows inclusion of the cases of zero exports between the country-pairs. On the right-hand side, log-transformed values of the annual gross domestic product of exporter and importer are denoted by *GDP$_{it}$* and *GDP$_{jt}$* respectively. Similarly, *Distance$_{ij}$* captures the bilateral geographical distance between country-pairs whereas *Language$_{ij}$*, *ComCol$_{ij}$* and *Contiguity$_{ij}$* are dummies to record language commonality, colonial relationship, and shared border commonality. Variable *RTA$_{ijt}$* denotes the existence of a regional trade agreement between the country-pair. Furthermore, to account for trade evolution over time, we included year dummies, denoted by *β$_t$*.

As discussed earlier, the estimation approach with traditional variable does not account for various sources of unobserved heterogeneity. Therefore, we specify estimation model using the structural gravity approach. In this context, some recent studies using the structural gravity model include: Anderson and Yotov (2020), Freeman and Pienknagura (2019), Heid et al. (2021), and Oberhofer and Pfaffermayr (2021). A comprehensive account on how to model trade agreements in the gravity equation is explained in Yotov, Piermartini, Monteiro, and Larch (2016, p. 49). In this approach, country specific time-variant variables such as GDP of trading countries are absorbed by importer-time and exporter-time fixed effects (*β$_{it}$* and *γ$_{jt}$*). The resultant model is stated in Equation 2 below. Furthermore, we include country-pair fixed effect (*δ$_{ij}$*) to cater the endogeneity of trade policy. These fixed effects absorb country-pair specific time-invariant variable such as bilateral distance, language commonality and contiguity, as shown in Equation 3.

$$\text{Exports}_{ijt} = \exp[\alpha_1 \ln(\text{Distance}_{ij}) + \alpha_2 \text{Language}_{ij} + \alpha_3 \text{ComCol}_{ij} + \alpha_4 \text{Contiguity}_{ij} + \alpha_5 \text{RTA}_{ijt} + \beta_{it} + \delta_{jt}] + \varepsilon_{ijt} \qquad (2)$$

$$\text{Exports}_{ijt} = \exp[\alpha_1 \text{RTA}_{ijt} + \beta_{it} + \delta_{jt} + \gamma_{ij}] + \varepsilon_{ijt} \qquad (3)$$

We separately estimate the equations for cultural exports and total exports. As an additional analysis, we examine the impact of cultural proximity on aggregate exports. For this, cultural exports serve as a proxy for the cultural similarity. In this way, we estimate the three models taking non-cultural exports as the dependent variable while cultural exports as an additional explanatory variable. Note that the equations are estimated using PPML estimator[2].

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[2] We applied Poisson pseudo maximum likelihood with high dimensional fixed effects ("ppmlhdfe" in Stata); see Correia, Guimarães, and Zylkin (2019) for details.

Data Sources

Annual bilateral exports measured in current US$ are taken international trade Center Trade Map. The sample includes total and cultural exports of the five BRICS members to their trading partners. Information related to regional trade agreements is sourced from Mario Larch's Regional Trade Agreements Database from Egger and Larch (2008). Annual values of gross domestic product are taken from the World Development Indicators database of the World Bank. The Centre d'Études Prospectives et d'Informations Internationales (CEPII) is the source for traditional gravity variables including bilateral geographical distance, language commonality, colonial relationship, and contiguity. The bilateral distance is measured in kilometers while the other three variables are binary in nature.

Results and Discussion

Table 2 presents the regression estimates for the aggregate exports and cultural exports of BRICS. The first three columns correspond to the models specified in equation 1, 2, and 3 for the total exports whereas the estimations for cultural exports are reported under the last three columns. First, we look at the effect of economic size on exports. Intuitively, the larger the economy, the higher the potential of exports supply and import demand. This is reflected by the positive and statistically significant coefficient values for the GDPs of exporters and importers. One percent increase in the GDP of exporting country increases the exports by roughly 0.5 percent. The same is applicable to the GDP of the importing country. Our results for positive effect of GDP on trade are aligned with the prior studies of Guan and Sheong (2020) for China and Abidin, Haseeb, Chiat, and Islam (2016) in case of BRICS economies.

On the flipside, geographical distance between trading partners has a negative effect of exports. Our results are aligned with those of Alhassan and Payaslioglu (2020) and Ekanayake, Mukherjee, and Veeramacheneni (2010) who found negative effect of geographical proximity on exports. Interestingly, the coefficient values show that trade-restrictive effect of distance is much higher in the case of cultural exports. In this regard, Dong and Truong (2020) estimated coefficients for geographical distance is statistically insignificant. The intuition behind the negative impact is that larger geographical distance implies more trade cost, thus hampering trade flows. Second, geographical distance can also be considered as cultural similarity which fades away over longer geographical distance.

Next, we see the effects of language commonality, shared colonial past, and contiguity. These findings are congruent to the empirical results of Alhassan and Payaslioglu (2020) in case of Africa. These variables are theoretical expected to facilitate trade. The estimated coefficients for these variables have the expected signs. Here again, the effect of common colonizer has relatively much higher impact for cultural exports compared to the aggregate exports of BRICS. Similarly, the estimated effect of contiguity – shared borders – shows that cultural exports are more concentrated in the neighborhood of the exporting country. This again implied the coherence of culture in the region fostering trade of creative industries among the neighboring countries. The common colonial history impacts consumer preferences for cultural heritage goods and visual arts; and it suggests the presence of addictive behavior in the consumption pattern (Disdier et al., 2010).

Table 2. Gravity estimates: total exports versus cultural exports

	Dependent variable: Exports (thousand US$)					
	Total exports			Cultural exports		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
$\ln(GDP_{it})$	0.486***			0.466***		
	(0.049)			(0.114)		
$\ln(GDP_{jt})$	0.414***			0.488***		
	(0.060)			(0.099)		
$\ln(Distance_{ij})$	-0.797***	-0.798***		-1.268***	-1.331***	
	(0.028)	(0.028)		(0.075)	(0.069)	
$Language_{ij}$	0.665***	0.674***		0.284***	0.289***	
	(0.045)	(0.044)		(0.082)	(0.078)	
$ComCol_{ij}$	0.903***	0.905***		1.226***	1.174***	
	(0.069)	(0.066)		(0.108)	(0.092)	
$Contiguity_{ij}$	0.426***	0.420***		0.641***	0.815***	
	(0.083)	(0.078)		(0.101)	(0.095)	
RTA_{ijt}	0.242***	0.243***	**0.084****	-0.113**	-0.457***	**0.041**
	(0.031)	(0.032)	**(0.035)**	(0.057)	(0.070)	**(0.100)**
$\beta_i, \delta_j, \gamma_t$	Yes			Yes		
β_{it}, δ_{jt}		Yes			Yes	
$\beta_{it}, \delta_{jt}, \gamma_{ij}$			Yes			Yes
N	15,372	15,372	15,372	15,372	15,372	15,372

Notes: Dependent variable is taken in levels. Fixed effects are not reporter for brevity. Robust standard errors in parentheses. Statistical significance is denoted as *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Finally, we discuss the impact of the regional trade agreements – the main variable of interest. Although we have estimations based on the traditional variables as well as structural gravity, however, for the RTAs treated as a time-variant country pair specific variable, we prefer the estimates of the structural gravity. In case of aggregate exports, the impact of RTAs is positive and statistically significant across the three model specifications. Our findings are similar to those of Ahcar Olmos and Rodríguez-Barco (2020) who found an overall positive impact of various RTAs on bilateral trade. Conversely, the trade agreements remain inconsequential for the exports of creative industries of BRICS economies. Dong and Truong (2020) find that RTAs of encourage cultural exports of Vietnam. However, in their disaggregated analysis shows that except for audio-visual and fashion subsets, trade facilitation role of RTAs is found to be statistically insignificant (Xie, 2018).

To scrutinize the effect of cultural proximity on the trading potential between countries, we used the cultural exports as determinant of the total bilateral exports (less the cultural exports) for the BRICS countries. The findings are reported in Table 3. Note that GDP is export (and importer) specific time-variant variable; whereas common language, common colonial history, and contiguity are time-invariant country-pair specific variables. In the structural gravity estimates, last column of the table, these variables are absorbed in the fixed effects. However, this allows for a statistically more rigorous estimate of the RTAs and cultural exports which are time-variant country-pair specific by definition.

Looking at the control variables first, we see that the coefficient signs for these variables are as expected. Exports are positively related with the size of economy and inversely related with the geographic

distance between countries. Similarly, more exports are indicated to be stemming from the commonality of language and colonial past as well as shared border. Furthermore, the estimates show that trade agreements facilitate exports. Noticeably, the findings of Table 2 and Table 3 corroborate each other. Estimates presented in Table 2 are related to the first hypothesis. In case of aggregate exports, the impact of RTAs is positive and statistically significant across the three model specifications. Conversely, the trade agreements remain inconsequential for the exports of creative industries of BRICS economies. Estimates presented in Table 3 are related to the second hypothesis. We find that cultural proximity promote trade.

Table 3. Cultural proximity as a predictor of bilateral trade

	Dependent variable: Exports (thousand US$)		
	Total exports		
	(1)	**(2)**	**(3)**
$\ln(GDP_{it})$	0.394***		
	(0.053)		
$\ln(GDP_{jt})$	0.321***		
	(0.047)		
$\ln(Distance_{ij})$	-0.631***	-0.628***	
	(0.034)	(0.032)	
$Language_{ij}$	0.528***	0.532***	
	(0.045)	(0.045)	
$ComCol_{ij}$	0.742***	0.755***	
	(0.058)	(0.054)	
$Contiguity_{ij}$	0.337***	0.334***	
	(0.085)	(0.081)	
RTA_{ijt}	0.232***	0.263***	0.085**
	(0.029)	(0.030)	(0.035)
$\ln(CExp_{ijt})$	0.163***	0.164***	0.042***
	(0.016)	(0.011)	(0.008)
$\beta_i, \delta_j, \gamma_t$	Yes		
β_{it}, δ_{jt}		Yes	
$\beta_{it}, \delta_{jt}, \gamma_{ij}$			Yes
N	15,372	15,372	15,372

Notes: Dependent variable is taken in levels. Fixed effects are not reporter for brevity. Robust standard errors in parentheses. Statistical significance is denoted as *** p<0.01, ** p<0.05, * p<0.1

In this estimation, the variable cultural exports enter the model as a determinant of the aggregate non-cultural exports of the BRICS. The coefficient value is positive and statistically significant across the three-model specification, however, the estimate under structural gravity is relatively small. Our results are supported by Xie (2018) who found the positive impact of cultural proximity on trade in China.

The main findings show that cultural exports are more sensitive to geographical distance between trading partners; whereas similarity between exporting country and importing country in terms of language, colonial past and shared border is more pronounced in case of cultural exports. Second,

cultural exports encourage the exports of aggregate non-cultural exports. Finally, we find that while the RTAs promote aggregate exports, they remain inconsequential in case of cultural exports. Expanding the creative industries help diversify exports, which in turn help economies deal with the account deficit issues. Without resorting to the diversification of exports, the prospects of sustainable and long-term economic growth are difficult.

Conclusions

The current study examines cultural exports of BRICS economies compared to their aggregate exports using structural gravity model. Based on the results and findings of the current study, it is concluded that cultural exports are more sensitive to geographical distance between trading partners; whereas similarity between exporting country and importing country in terms of language, colonial past and shared border is more pronounced in case of cultural exports. Second, cultural exports encourage the exports of aggregate non-cultural exports. Finally, we find that while the RTAs promote aggregate exports, they remain inconsequential in case of cultural exports.

For the BRICS economies, there is need to formulate trade arrangements to facilitate cultural exports. The domestic creative industries need to be internationalized to enable the production process and product attributes specific to the destination markets. This would require beefing up financial assistance at firm level. Similarly, people to people exchange initiatives may mitigate the adverse impacts of cultural distance on creative industries export. Furthermore, improving worker productivity through skill development programs specialized for the creative industries can contribute in increasing exports.

A limitation of the current study is that it analyzes cultural exports at an aggregate level. However, a disaggregate analysis to encompass particularities of different sub-sectors of creative industries would yield more insightful information. In this regard, it would also be interesting to examine the role of non-tariff measures on the bilateral trade of creative goods. Apart from the trade facilitation arrangements, establishment of special economic zones (SEZs) is common too to accelerate industrialization. In this regard, China has already displayed a phenomenal performance. Therefore, it is recommended to establish specialized SEZs for creative industry which is expected to generate valuable gains in terms of employment and trade creation.

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