Empirical Study of the Regional Differences of the Influences of Cultural Distance on Chinese Import-Export Trade

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Abstract: According to the cultural clustering theory, this paper first classifies 31 countries/regions, China's close trade partners, into 6 cultural clusters, and then empirically studies the influence of the cultural distance between China and each country within each cluster on Chinese import-export trade with them during 1995–2017. The results are in two aspects: First, there exist differences in the influence of the national cultural distance between China and each country within each cluster on Chinese import-export trade with them. In general, China's export to each country in different cultural clusters is more susceptible to national cultural distance than its import from it. Second, there are also differences in the influence of the distance on each cultural dimension between China and each country within each cluster on Chinese import-export trade with them, and the influence directions are also different. Inspired by these conclusions, we further classify Chinese trade partners into 2 types: the export-sensitive type and the two-way sensitive type. These findings provide a new policy frame and constructive enlightenment for China to develop its international trade in the new era.

Keywords: National Cultural Distance, China, Import-Export Trade, Cultural Cluster, Regional Difference

1. Introduction

Since Chinese government pushing the Going-out strategy, China has achieved a miracle in economic growth. The average annual growth rate of GDP exceeded 6%, from RMB 364.5 billion in 1978 to more than RMB 82 trillion in 2017 [1]. Especially, under the background against "One-Belt-One-Road" initiative (or OBOR, for short), One Belt One Road Construction brings new trade opportunities to global economic activities. As the initiator for One Belt One Road initiative, China has entered a golden age in developing its foreign trade. Statistics show that in 2017, the total import and export value of China's goods trade was RMB 27.79 trillion, an increase of 14.2% over 2016. In the meantime, the total value of China-US (United States) bilateral trade amounted to USD 635.97 billion; that of China-EU (European Union) bilateral trade was USD 644.46 billion; that of China-ASEAN (Association of Southeast Asian Nations) bilateral trade reached USD 514.80 billion; and that of China-Japan bilateral trade amounted to USD 297.28 billion. Although China's foreign trade "market diversification" strategy has achieved some success, imbalance exists in the regional distribution.

In fact, the trade imbalance in regional distribution is not a unique phenomenon in China's foreign trade, but a universal phenomenon in international trade activities. A typical example is the large internal trade volume in the free trade areas in the EU and North American. The regional imbalance phenomenon in international trade has received attentions from many researchers and different explanations are given. It is generally believed that, during the bilateral trade process, geographic distance is the most important deciding factor of transportation costs. The farther the distance between the two trade partners is, the less the bilateral trade volume will be [2].

However, with the popularity of the Internet and advances in modern technologies, transportation cost between countries has dropped significantly and the inhibition effect of geographical distance on trade has continuously decreased. Therefore, researchers began to explain regional differences in international trade in terms of cultural distance, in order to find the relationship between cultural distance and trade volumes between countries, but findings were different. Some studies concluded that cultural distance had a negative effect on the export trade volume [3-7]. This conclusion may, to some extent, explain why the internal trade volumes of regional groupings like the free trade areas in the EU and North American are huge, which was largely because of the closer cultural distance between the member states of these trade regions. In contrast, other studies showed that cultural distance and foreign trade flows were positively correlated. For example, the empirical research by Linders *et al.* (2005) showed that the institutional distance hindered bilateral trade between two countries, but cultural distance promoted bilateral trade [8]. This conclusion was confirmed by Guiso *et al.* (2009) [9] who believed cultural difference enabled diversified products to meet the consumer's need. Therefore, the influence of cultural distance on export trade should be positive [10]. Additionally, some researchers found that there was a complex nonlinear relationship between cultural distance and foreign trade flows. Kan *et al.* (2013) utilized the panel data from 1996 to 2008 to verify an inverted u-shaped relationship between China's foreign trade and cultural difference. Moreover, through further study, they found that the dimensional differences in uncertainty avoidance, masculinity and femininity, and long and short term orientation and China's foreign trade flow showed a u-shaped relationship [11].

The above studies revealed the relationship between cultural distance and trade flows between countries, providing a theoretical basis for studying the structural imbalance outside the region in the international trade. However, these studies did not explain why a county's trade flows also differed among the countries that are culturally close to this country. For example, the culture distance between European countries of Germany, France and Finland and China are rated 4.27, 4.20 and 4.35, respectively. But there are obvious differences in the trade flows between these countries and China. Is this difference related to the different cultural clusters in Germany, France and Finland? This leads to the main topic of this paper: are there any differences in the influence of national cultural distance between China and countries in different clusters on trade? If the answer is positive, what exactly are the differences? In view of this, this paper selected 31 countries (regions) that have closer trade relations with China. With the use of cultural theory, they were divided into different cultural clusters. For the countries in each cultural cluster, the trade flow data between China and these countries during 1995-2011 and a gravity model were used to empirically study the differences in the influence of national cultural distance between China and the countries in different clusters on import-export trade, providing practical guidance on China's "customized" trade development strategies in countries within different cultural clusters.

Table 1. Regional distribution of China's main trading partners.

Region	Country
Nordic cluster	Finland, Norway, Denmark and Sweden
Germanic cluster	Austria, Germany, Switzerland
Anglo-Saxon cluster	USA, Canada, Australia, New Zealand, UK, Ireland
Latin European cluster	France, Belgium, Italy, Portugal, Spain
Far East cluster	Malaysia, Singapore, Hong Kong SAR, Chinese Taiwan, Thailand, Vietnam, the Philippines
Independent cluster	Brazil, India, Russia, Japan, South Korea, Mexico

2. Empirical Study Design

2.1. Study Framework

This paper uses the 31 sample countries (regions) in the abovementioned six cultural clusters as the study object to further investigate the cluster differences in the influence of national cultural distance on China's impact-export trade. The specific idea is as follows: the national cultural distance between China and the countries in the same cultural cluster varies with the size of their import-export trade; therefore, we study the relationship between the two with the cultural distance difference between China and these countries for each cultural dimension as the explanatory variable. Then we compare the results of the six clusters and investigate the differences in the influence of national cultural distance between China and countries of different cultural clusters on China's import-export trade. The study framework is shown in Figure 1.
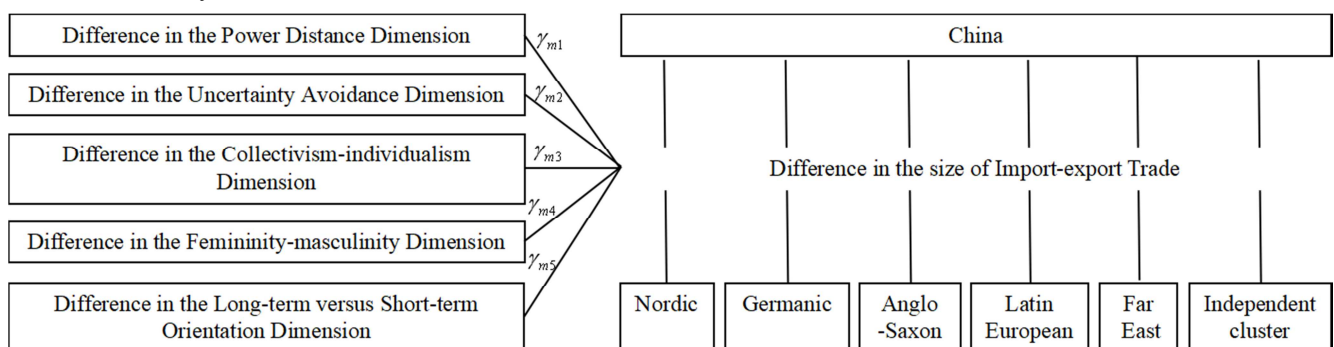

Figure 1. Study framework of differences in the influence of national cultural distance on China's import-export trade.

2.2. Sample Selection and Data Acquisition

Currently, China has trade relations with over 100 countries, with closer relationship with 31 countries (regions). The total volume of trade between China and these countries account for over 77% of China's foreign trade. Considering the representativeness of a sample, empirical complexity and the need of an empirical study, this paper selected 31 countries and regions as the sample and used the trade data and population data[1] during 1995–2017 from the database of United Nations Conference on Trade and Development.

The GDP data in this paper is from the IMF (International Monetary Fund) database. After using the PPP conversion factor to eliminate bias due to the differences in the system, standards and prices of the national GDP calculation, this data is used to compare and evaluate each country's actual economic scale and structure.

In this paper, geographic data is the measured distance between nations' capitals, excluding the impact of factors such as language and history. The geographical distance in the model is completely independent from the cultural distance[2].

In terms of the national cultural data, since national culture is invisible and intangible "psychological program", they cannot be directly expressed and need to be indirectly measured through a number of different indicators such as language, history and religion, which cannot be easily quantified. Therefore, this paper uses Hofstede's national cultural dimension scores as the basic data of national cultural distance.

2.3. Definition of Culture and the Measure of National Cultural Distance

2.3.1. Definition of Culture

The word "culture" is very widely and frequently used. However, regarding the definition of culture, there is currently no unified understanding. Currently, there are more than 460 definitions of culture in the academic community. British anthropologist Edward Burnett Tylor's definition of culture in his book *Primitive Culture* (1871) is that culture is a complex whole which includes knowledge, beliefs, arts, morals, law, customs, and any other capabilities and habits acquired by a human as a member of society. The definition of culture by Richard M Hodgetts *et al.* is that culture is the acquired knowledge that people use to interpret experience and to generate social behavior. Through culture we form values and attitudes that shape our individual and group behaviors. Dutch management researcher Geert Hofstede believes that "the collective programming of the mind distinguishing the members of one group or category of people from another."[12] In these definitions, culture is the collective value system and behavioral pattern formed by humans under certain physical and environmental conditions. It is a way of

living and understanding the world for certain group members. This determines the meaning of particular rules and models in their lives, thus forming a particular culture. Therefore, this paper defines culture as the collective value, behavioral standard and habituated behavioral pattern formed in the long-term social and historical practice by a particular group; it is the basis of society and people living together.

2.3.2. The Measure of National Cultural Distance

With the aforementioned, it is easy to understand that national culture is a system of set guidelines, values and priorities of things that members of the same nation use to share and to decide their lifestyles. Different national cultures have different values, morals, customs, patterns of thinking and standards for behaviors. These differences are usually expressed by the national cultural distance. Briefly speaking, the national cultural distance quantitatively represents the differences in national cultures, measured by the cultural levels of the two countries [13]. Hofstede identified five cultural dimensions including power distance, uncertainty avoidance, collectivism versus individualism, femininity versus masculinity and long- term versus short-term orientation to represent cultural differences.[3] The questionnaire he used was referred to as Value Survey Module (VSM), which contains a total of 33 questions covering a more comprehensive social life, including political system, religion, gender roles, family values, community groups, civil participation, ethics, values and other indicators. These indicators reflect the cultural characteristics of different countries or regions in the world. The survey data is processed using factor analysis and cluster analysis methods to derive the main cultural dimension and to calculate a score for each dimension, with the score indicating a country's cultural level. This cultural level does not represent "strengths or weaknesses" or "good or bad" of a country's culture. Instead, it only represents a country's relative position.[4] Therefore, the national cultural distance can be expressed by Hofstede's scores of cultural dimensions. A higher score indicates a greater cultural distance.[5] Kogut and Singh (1988) [14] adopted Hofstede's scores of five cultural dimensions and calculated the cultural distance between two countries with (1). Pierce Morosini (1998) [15] and Paul D. Ellis (2007) [16] also used this equation to calculate the cultural distance between two countries.

$$CD_j = \sqrt{\sum_{j=1}^{5} (I_{ic} - I_{ij})^2} \qquad (1)$$

Additionally, Groot (2005) [17] improved this equation to compute a system index, which has been frequently referenced by many researchers. This paper utilizes Groot's equation (2) to calculate national cultural distance.

$$CulDist_{c*j} = \frac{1}{5} \frac{\sum_{k=1}^{5} \sqrt{(I_{kc} - I_{kj})^2}}{V_k} \qquad (2)$$

Where $CulDist_{c*j}$ denotes the national culture distance between China and country j, I_{kc} is China's score on dimension k, I_{kj} represents country j's score on dimension k, and V_k is the sample variance of all countries' scores on dimension k. According to (2), the national cultural distance between China and the 31 countries (regions) are calculated (see Table 2).

Table 2. *Scores of national cultural distance between China and sample countries /regions.*

Country	Cultural distance	Country	Cultural distance	Country	Cultural distance
Finland	4.35	UK	5.07	the Philippines	3.36
Norway	5.18	Ireland	3.59	Vietnam	0.84
Denmark	5.21	France	4.20	Chinese Taiwan	1.19
Sweden	5.86	Belgium	4.32	Thailand	2.22
Austria	5.11	Italy	4.28	Russia	5.77
Germany	4.27	Portugal	5.00	Mexico	2.69
Switzerland	4.00	Spain	4.98	India	1.39
USA	4.85	Malaysia	1.40	Basil	1.89
Canada	4.88	Singapore	1.92	Korea	2.08
Australia	4.88	Hong Kong SAR	0.26	Japan	2.58
New Zealand	4.96				

Note: above data is calculated by equation 2 based on raw data.

2.3.3. Distance Measures of the Five Cultural Dimensions

Hofstede's scores of national cultural differences does not reflect the absolute position of a country's culture, namely that there is no "good or bad" and "strong or weak" of a country's culture. The score calculation method is consistent among all countries and can be used for horizontal comparison to reflect the relative position of each country's culture. Therefore, the scores of the five cultural dimensions can be used to measure national cultural distance [18-19]. In his study, cultures that score higher on power distance tend to have greater power distance; cultures that score higher on uncertainty avoidance tend to have stronger uncertainty avoidance; cultures that score higher on the collectivism-individualism dimension emphasize more on individualism; cultures with higher score on the femininity-masculinity dimension are more masculine; cultures that score higher on long-term versus short-term orientation prefer long term orientation. The cultural distance on the five dimensions is expressed as follows:

$$CD_{kc*kj} = \left| I_{kc} - I_{kj} \right| \qquad (3)$$

Where CD_{kc*kj} represents the cultural distance between China and country j on dimension k; I_{kj} represents the Hofstede's score of country j on dimension k; I_{kc} is China's score on dimension k.

Difference between the measured distances on the five cultural dimensions. The difference in the cultural distances on the five cultural dimensions refers to the absolute value of the difference between China's cultural distance to country j. It is formulated as:

$$\Delta CD_{kc*kj} = \left| CD_{kc} - CD_{kj} \right| \qquad (4)$$

Difference in distance on the power distance dimension can be expressed by:

$$\Delta PD_{kc*kj} = \left| PD_{kc} - PD_{kj} \right| \qquad (5)$$

Where ΔPD_{kc*kj} represents the difference between China and country j on the power distance dimension; PD_{kc} represents the power distance score of China; PD_{kj} represents the power distance score of country j.

Difference in the distance on the uncertainty avoidance dimension can be expressed by the following equation:

$$\Delta UA_{kc*kj} = \left| UA_{kc} - UA_{kj} \right| \qquad (6)$$

Where ΔUA_{kc*kj} represents the difference between China and country j on the uncertainty avoidance dimension; UA_{kc} represents the uncertainty avoidance dimension score of China; UA_{kj} represents the uncertainty avoidance dimension score of country j.

Difference in the distance on the collectivism-individualism dimension can be expressed by:

$$\Delta IC_{kc*kj} = \left| IC_{kc} - IC_{kj} \right| \qquad (7)$$

Where ΔIC_{kc*kj} represents the difference between China and country j on the collectivism-individualism dimension; IC_{kc} represents the collectivism-individualism dimension score of China; IC_{kj} represents the collectivism-individualism dimension score of country j.

Difference in distance on the femininity- masculinity dimension is expressed by:

$$\Delta MF_{kc*kj} = \left| MF_{kc} - MF_{kj} \right| \qquad (8)$$

Where ΔMF_{kc*kj} represents the difference between China and country j on the femininity-masculinity dimension; MF_{kc} represents the femininity-masculinity dimension score of China; MF_{kj} represents the femininity-masculinity dimension

score of country j.

Difference in the distance on the long-term versus short-term orientation dimension is expressed as:

$$\Delta LTO_{kc*kj} = \left| LTO_{kc} - LTO_{kj} \right| \qquad (9)$$

Where ΔLTO_{kc*kj} represents the difference between China and country j on the long-term versus short-term orientation dimension. LTO_{kc} represents the long-term versus short-term orientation dimension score of China; LTO_{kj} represents the long-term versus short-term orientation dimension score of country j.

Table 3. *Scores for the five cultural dimensions between China and sample countries /regions.*

China ↓↑	Distance on the power distance dimension	Distance on the uncertainty avoidance dimension	Distance on the collectivism-individualism dimension	Distance on the femininity- masculinity dimension	Distance on the long-term versus short- term orientation dimension
Finland	47	29	43	40	77
Norway	49	20	49	58	74
Denmark	62	7	54	50	72
Sweden	49	1	51	61	85
Austria	69	40	35	13	87
Germany	45	35	47	0	87
Switzerland	54	26	49	6	78
USA	40	16	71	4	89
Canada	41	18	60	14	95
Australia	44	21	70	5	87
New Zealand	58	19	59	8	88
UK	45	5	69	0	93
Ireland	52	5	50	2	75
France	12	56	51	23	79
Belgium	13	63	52	6	80
Italy	30	45	56	4	84
Portugal	17	74	7	35	88
Spain	23	56	31	24	99
Malaysia	24	6	6	16	57
Singapore	6	22	0	18	70
Hong Kong SAR	12	1	5	9	22
The Philippines	14	14	12	2	99
Vietnam	10	0	0	26	38
Chinese Taiwan	22	39	3	21	31
Thailand	16	34	0	32	62
Russia	13	65	19	30	108
Mexico	1	52	10	3	74
India	3	10	28	10	57
Brazil	11	46	18	17	53
Korea	20	55	2	27	43
Japan	26	62	26	29	38

Note: above data is calculated by equation 3 based on raw data.

2.4. Model Development

This paper uses an extended gravity model. Drawing an analogy to Newton's law of gravitation, Tinbergen (1962) and Pöyhönen (1963) first applied the gravity model of trade to international trade theory. Gravity model of trade, through continued development and application by researchers, has become a widely used empirical model in international trade theory. Extended gravity model is the log-linearized form of Model (2):

the model.

Model (1): $LnT_{ij} = \alpha_0 + \beta_1 LnG_i + \beta_2 LnG_j + \beta_3 LnD_{ij} + \mu$

To study the differences in the influence of national cultural distance between China and different cultural clusters on import-export trade, this paper develops the following models (2) and (3) based on the study framework shown in Figure 1.

$$LnIM_{tci,cj} = \alpha_{mo} + \beta_{m1}LnChnGDP_{tc} + \beta_{m2}LnOthGDP_{tj} + \beta_{m3}LnDist_{cj} + \beta_{m4}LnPorp_{j,t}$$
$$+ \gamma_{m1}LnPD_{cj} + \gamma_{m2}LnUA_{cj} + \gamma_{m3}LnIC_{cj} + \gamma_{m4}LnMF_{cj} + \gamma_{m5}LnLto_{cj,ct} + \mu_{mtj}$$

Model (3):

$$LnIEX_{tci,cj} = \alpha_{eo} + \beta_{e1}LnChnGDP_{tc} + \beta_{e2}LnOthGDP_{tj} + \beta_{e3}LnDist_{cj} + \beta_{e4}LnPorp_{j,t}$$
$$+ \gamma_{e1}LnPD_{cj} + \gamma_{e2}LnUA_{cj} + \gamma_{e3}LnIC_{cj} + \gamma_{e4}LnMF_{cj} + \gamma_{e5}LnLto_{cj} + \mu_{etj}$$

In the above models, c refers to China, j denotes country j. Definitions and descriptions of other explanatory variables and dependent variables are listed in Table 4.

Table 4. *Descriptions of explanatory and dependent variables.*

Variable	Variable definition and unit	Expected sign	Theoretical description
$IMtcj$	Difference in imports of China from country j in year t (USD 000)		Dependent variables
$EXtcj$	Difference in exports of China to country j in year t (USD 000)		
$ChnGDPtc$	China's GDP in year t (USD 000)	+	Representative of China's economy size and supply and demand capacity. A greater GDP means greater demand for foreign trade.
$OthGDPtj$	GDP difference between China and country j (USD 000)	+	Representative of the difference between China and country j in the economy size, supply and demand capacity.
$Distcj$	Geographical distance difference between China and country j (km)	+	Representative of the difference between China and country j in trade transportation costs.
$Porpj$	Population difference between China and country j (in thousands)		Representative of the difference between the China and country j in per capita purchasing power and overall size of the purchase.
$PDcj$	Difference in cultural distances between China and country j on the power distance dimension	+	Representative of the difference of cultural distances between China and country j on the power distance dimension.
$UAcj$	Difference in cultural distances between China and country j on the uncertainty avoidance dimension	+	Representative of the difference of cultural distances between China and country j on the uncertainty avoidance dimension.
$ICcj$	Difference in cultural distances between China and country j on the collectivism-individualism dimension	+	Representative of the difference of cultural distances between China and country j on the collectivism-individualism dimension.
$MFcj$	Difference in cultural distances between China and country j on femininity-masculinity dimension	+	Representative of the difference of cultural distances between China and country j on the femininity-masculinity dimension.
$LTOcj$	Difference in cultural distances between China and country j on the long-term versus short-term orientation dimension	+	Representative of the difference of cultural distances between China and country j on the long-term versus short term orientation dimension.

3. Empirical Results and Analysis

In the model analysis of this paper, the panel data are organized as stacked cross sections. The data are sorted chronologically for different countries (regions). Each variable data are listed in their respective columns. Culture, as a value, has long-term stability. A country's cultural distance does not change with time. Since the geographical distance and cultural distance in the data analysis of this paper do not changed in time, it brings inconvenience to the F statistical test. Therefore, in the following analysis, a relatively simple hybrid model will be used in the analysis. SPSS Statistics 17.0 and Eviews 6.0 are used to estimate model parameters, with results shown in Table 5.

In Table 5, the positive standardized regression coefficient is in alignment with model expectations, suggesting that the difference in the cultural distance between China and countries in this cultural cluster is positively correlated with China's foreign trade. A greater distance difference indicates a greater difference in import-export trade between China and countries in this cluster. When the standardized regression coefficient is negative, it is contrary to the model expectations,

suggesting that the difference in the cultural distance between China and countries in this cultural cluster is negatively correlated with China's foreign trade. The greater the variable difference is, the less pronounced the difference in the import-export trade between China and countries in this cluster will be. This variable difference can promote trade balance between China and countries in this cluster as well as strengthening the balance and stability of China's foreign structure among countries in the cluster.

The influence of the national cultural distance on China's imports and exports is different for different clusters of countries. There are three types of relationships for the influence of the differences in the distances on the five cultural dimensions between China and each cluster on China's import-export trade: positively correlated, negatively correlated and unrelated. Due to the limitation on the length of the paper, this paper focuses on the results of positive and negative correlations. The research findings are as follows:

(1) The difference in the cultural distance on power distance dimension is positively correlated to the difference in the import trade between China and countries in the Far East and Independent (cluster), and

the export trade between China and countries in the Independent (cluster). It is negatively correlated to the difference in imports of China from countries in the Germanic, Latin European and Anglo-Saxon, and that in exports to countries in Germanic, Latin European and Anglo-Saxon.

(2) The difference in the cultural distance on uncertainty avoidance dimension has a positive impact on that in the scale of China's imports to Far East and Anglo-Saxon countries, and that in exports to countries in Anglo-Saxon and Independent (cluster), and a negative impact on the difference in the scale of export of Far East countries.

(3) The difference in the cultural distance on the collectivism-individualism dimension is positively correlated to the difference in China's imports to Nordic and Latin European countries, exports to Nordic, Latin European and Independent (cluster) countries, and a negative impact on the difference in the scale of export Anglo-Saxon.

(4) The difference in the cultural distance on the femininity-masculinity dimension has a negative impact on that in the scale of imports from Latin European and Independent (cluster) countries. It also has a negative impact on the difference in China's imports from and exports to Latin European, Anglo-Saxon and Independent (cluster) countries.

(5) The difference in the cultural distance on the long-term versus short-term orientation dimension only has a positive impact on the difference in China's imports from Far East countries.

***Table 5.** Empirical results of influences of national cultural distance gap between China and countries in different cultural clusters on their import-export trade.*

	Nordic		Germanic		Latin European	
	Import	Export	Import	Export	Import	Export
Constant	9.656 (22.288)	38.288(29.975)	316.278***(63.676)	715.066 ***(54.332)	-1272.912 ***(328.948)	-1729.792 ***(383.921)
chnGDP	19.322***(4.536)	-14.508***(6.110)	2.029 ***(0.354)	0.691**(0.303)	4.207 ***(0.465)	1.510**(0.573)
othGDP	-18.800 ***(4.488)	14.963**(6.047)	--	--	-2.780***(0.384)	--
Dist	-11.989 ***(1.420)	-13.683***(1.900)	-30.461***(9.561)	-75.085***(8.074)	142.767***(36.675)	192.678 *** (42.619)
Porp	16.588 *** (4.468)	10.575*(5.976)	--	--	--	14.219**(6.683)
PD	--	--	-9.013***(1.837)	-16.282***(1.549)	-20.770***(5.255)	-26.866***(6.109)
UA	--	--	--	--	--	--
IC	4.163 ***(1.183)	7.915***(1.632)	--		7.122 ***(1.551)	9.351***(1.814)
MF	--	--	--	--	-11.297 ***(2.892)	-14.780***(3.359)
LTO	--	--	--	--	--	--
Adjusted R^2	0.932	0.913	0.967	0.979	0.959	0.921
Prob (F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000

***Table 5.** Continue.*

	Far East		Anglo-Saxon		Independent (cluster)	
	Import	Export	Import	Export	Import	Export
Constant	-64.034***(17.335)	-125.223 ***(19.444)	77.105***(8.890)	54.418***(7.083)	-1.889**(0.903)	-2.784***(0.953)
chnGDP	-7.227***(1.617)	4.393 *(2.539)	1.463***(0.202)	0.871***(0.158)	1.577***(0.155)	2.212***(0.175)
othGDP	7.656***(1.575)	-4.263 ***(2.461)	0.095***(0.034)	--	--	-0.448***(0.134)
Dist	--	-2.051 ***(0.463)	-2.051 ***(0.463)	--	-0.554***(0.079)	-0.754***(0.073)
Porp	13.529 ***(3.821)	29.918 ***(4.065)	--	10.260***(3.163)	--	-0.684***(0.173)
PD	0.650 *(0.344)	--	-6.581**(0.033)	-18.298***(2.384)	1.492***(0.186)	1.080***(0.180)
UA	0.329 ***(0.066)	-0.305***(0.079)	3.578 *(2.150)	9.412***(1.674)	--	1.134***(0.203)
IC	--	--	--	-11.445***(3.072)	--	0.256***(0.083)
MF	--	--	--	-6.125***(1.097)	-1.051***(0.235)	-1.350***(0.237)
LTO	--	0.745***(0.216)	--	--	--	--
Adjusted R^2	0.937	0.91	0.976	0.988	0.938	0.93
Prob (F-statistic)	0	0	0	0	0	0

Note: standardized regression coefficients are shown in parenthesis, ** indicates P <5%, *** indicates P <1%.

These empirical findings are organized and summarized in Table 6, which lists the national cultural distance, clusters of countries, import and export as well as positive and negative correlation. Those that are unrelated are not listed in the table.

As can be seen from Table 6, overall, China's exports to the sample countries are more susceptible to the influence of national cultural distance than imports. There exist discrepancies between the difference in the distance on the five cultural dimensions and the difference in import-export trade between China and countries in different cultural clusters. In some cultural clusters, these two are positively correlated because cultural difference gives rise to curiosity about exotic foreign culture and demand for foreign commodities [20-21]; in some other cultural clusters, there is negative correlation between the two, suggesting cultural distance has a negative effect on trade flows to some degree. Furthermore, heterogeneity is present in the influence of national cultural distance on China's import and export trade with different clusters.

Table 6. Influences of the difference in national cultural distance on the scale of China's import-export trade.

Variable	Positive correlation		Negative correlation	
	Import	Export	Import	Export
PD	Far East Independent (cluster)	Independent (cluster)	Germanic Latin European Anglo-Saxon	Germanic Latin European Anglo-Saxon
UA	Far East Anglo-Saxon	Anglo-Saxon Independent (cluster)		Far East
IC	Nordic Latin European	Nordic Latin European Independent (cluster)		Anglo-Saxon
MF			Latin European Independent (cluster)	Latin European Anglo-Saxon Independent (cluster)
LTO	Far East			

4. Main Findings and Recommendation

The main findings and recommendations based on the use of gravity model of trade in this paper are summarized as follows:

Firstly, the influence of national cultural distance on the imports and exports between China and countries of different clusters varies. Based on this finding, our trading partners can be further classified by two main types:

(1) Export sensitive. China's export trade with these countries is more influenced by cultural distance relative to its import trade. Countries in Anglo-Saxon and the Independent (cluster) are export sensitive countries, Exports were influenced by the cultural distance differences of Power distance, uncertainty avoidance, collectivism-individualism and femininity-masculinity dimensions, but imports were only influenced by Power distance and uncertainty avoidance, Power distance and femininity-masculinity dimensions respectively.

(2) Two-way sensitive. Both China's import from and export to these countries are greatly influenced by cultural distance. Among these countries are in Nordic, Germanic, Latin European and Far East. Countries in Nordic' import and export are influenced by the cultural distance of collectivism-individualism. Countries in Germanic' import and export are influenced by the cultural distance of power distance. Countris in Latin European' import and export are influenced by the cultural distance of power distance, collevtivism-individualism dimension and femininity-masculinity dimension. Countries in Far East' import is influenced by the cultural distance of power distance and uncertainty avoidance dimension, export is influenced by uncertainty avoidance dimension and long-term versus short-term orientation dimension.

Secondly, the distances between China and the countries in different clusters on various cultural dimensions have diversified influence upon China's export-import trade. Such influence and the influenced aspects vary from cluster to cluster.

This finding means that a unit of the difference in national cultural distance will enlarge or shrink the volume of trade between China and other countries. These two effects depend on the type of cultural clusters. It can be seen that the national cultural distance either promotes or hinders the balanced development of the structure of China's import-export trade. For different clusters, the way that national cultural distance influences trade is also different.

These research findings provide useful insights into China's foreign trade development in the new era of implementing OBOR initiative. In the increasingly competitive international market, how to give full play to the comparative advantage of cultural differences and inhibit its comparative disadvantage is an important issue during China's long-term development of foreign trade. To this end, our government, enterprises and industry associations should collaborate and strive to do the following:

Firstly, when selecting trading partners, they should not only consider their geographical region but also fully assess the influence of their cultural clusters on trading.

Secondly, when stipulating bi-lateral trade policies, they should treat the two categories of countries differently. When trading with export sensitive countries, they should supplement economic strategies with cultural strategies, fully exploit our comparative advantage in aspects such as geographical location and population to avoid the "resource curse" and the resource advantage trap [22]. When stipulating policies for the development of trade between China and countries that are two-way sensitive, they should supplement the cultural strategy with the economic strategy, enhancing the cultural force to promote the development of international trade.

Finally, during the development of foreign trade products, they should consider the difference in the influence of different cultural dimensions on trade between China and different clusters and follow the "cultural dimension complementary effect" principle. Furthermore, they also need to emphasize aspects such as the cultural connotation of product shape, packaging and color, striving to build compatible products with national cultural values of different clusters. In this way, the cultural quality of China's foreign trade goods will be enhanced.

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