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The Impact of Cultural Diversity on the Growth of China's Exports to the EU27

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Abstract
This study takes China and the 27 EU member states as the research subjects. Based on panel data from 2000 to 2023 and within the framework of an extended gravity model, it uses Hofstede's six-dimensional cultural model and the Kogut-Singh index to measure cultural diversity, systematically examining the impact of cultural diversity on the growth of China's export trade to the EU27. The findings show that cultural diversity significantly inhibits the growth of China's exports to the EU27: for each one-unit increase in cultural distance, the logarithmic value of export value decreases by approximately 0.79 units. This conclusion remains robust after various robustness tests and after addressing endogeneity issues using instrumental variable methods. Heterogeneity analysis reveals that this inhibiting effect is more pronounced in countries with higher economic development levels, in Central and Eastern European countries, and in countries with larger population sizes – the inhibiting effect in high-population countries is about 37 times that in low-population countries. The results indicate that intra-EU cultural differences are an important implicit constraint on the growth of China's export trade. Chinese export firms should abandon the perception of "EU homogeneity", formulate differentiated market strategies based on the cultural characteristics of member states, and enhance their cross-cultural adaptability.

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1. Introduction

With the ongoing advancement of economic globalization and regional economic integration, the factors influencing international trade are no longer confined to traditional economic variables such as resource endowments, market size, and geographical distance. The role of non-economic factors, including cultural differences and institutional environments, in cross-border trade is becoming increasingly prominent. Cultural diversity, in particular, holds a significant position in international trade research. Cross-border trade is not merely the flow of goods and capital but also entails continuous interaction between economic agents from different cultural backgrounds. In this process, cultural differences affect business communication, contract understanding, brand communication, and consumer needs identification, thereby influencing trade scale and efficiency through various channels.

As one of the world's most regionally integrated economies, the European Union (EU) has always been China's most important economic and trade partner. The EU not only possesses a substantial market size and strong consumption capacity but also exhibits a high degree of sophistication in institutional construction, market rules, and trade environment. However, despite the EU's strong institutional integration, its 27-member states do not constitute a homogeneous market. These countries differ significantly in historical traditions, religious beliefs, value orientations, social norms, and consumption habits. This divergence means that Chinese export firms face different environments when entering different EU member state markets, making the EU an ideal context for examining the impact of cultural diversity on China's export growth to Europe.

Existing research on the relationship between cultural diversity and international trade has not reached a consensus. One line of research argues that cultural differences increase communication costs and transaction frictions, weaken cooperative trust, and thus inhibit trade growth. Another line suggests that cultural diversity may generate demand diversification and market segmentation effects, providing space for product innovation and differentiated competition. Thus, the impact of cultural diversity on export trade growth is clearly context-dependent, and its actual effect requires further testing on specific samples.

This paper takes China and the EU27 as the research subjects. Based on panel data from 2000 to 2023 and within an extended gravity model framework, it systematically examines the impact of cultural diversity on the growth of China's export trade to the EU27. The marginal contributions of this paper are primarily threefold: First, by focusing on the EU27 – a regional market with significant internal cultural differences but high institutional integration – it addresses a gap in existing research concerning this specific sample. Second, in terms of empirical strategy, it employs instrumental variable methods to address potential endogeneity of cultural distance and verifies the reliability of the core conclusions through various robustness tests. Third, in heterogeneity analysis, it examines the differential effects of cultural diversity on trade from three dimensions – economic development level, regional geographical location, and population size – providing empirical support for refined market strategies.

The remainder of this paper is organized as follows: Section 2 reviews the literature and develops the research hypotheses; Section 3 describes the research design, including model construction, variable definitions, and data sources; Section 4 presents the empirical results and analysis, covering benchmark regressions, robustness tests, endogeneity tests, and heterogeneity analysis; Section 5 concludes with policy implications.

2. Literature Review and Research Hypotheses

2.1.Cultural Diversity and International Trade

In international business and trade research, cultural diversity is typically operationalized as "cultural distance." Cultural distance reflects the degree of difference between countries in terms of values, behavioral norms, social customs, and institutional perceptions, essentially quantifying cross-national cultural heterogeneity.

In terms of measurement, constructing cultural distance indicators based on Hofstede's cultural dimensions model is the most prevalent approach. Hofstede decomposed national cultural differences into six dimensions: power distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, long-term orientation vs. short-term orientation, and indulgence vs. restraint. This framework provides a systematic analytical tool for quantifying cross-national cultural differences. Kogut and Singh proposed a composite index method that calculates the differences between two countries on each cultural dimension, standardizes by the variance of each dimension, and ultimately yields a comprehensive distance measure. This method is widely applied in empirical research on international trade and cross-border operations.

The existing literature on the impact of cultural diversity on cross-border economic activities has not reached uniform conclusions. One line of research emphasizes the hindering effect of cultural differences. Studies have found that cultural distance generally has a stable negative impact on China's international trade, exhibiting not a simple linear relationship but rather complex nonlinear characteristics (Yu *et al*., 2025) [1]. Another comparative study based on export data from China and the United States points out that cultural distance significantly inhibits export growth through trade cost effects and preference divergence effects (Ailan *et al*., 2021) [2]. Some scholars have decomposed cultural differences multidimensionally, finding that trust distance and business concept distance significantly inhibit trade flows, while the direction and intensity of the impact vary markedly across different cultural dimensions (Jason & C.J.T., 2023). From the perspective of trade frictions, research further indicates that cultural distance significantly increases the probability of international trade disputes, suggesting that cultural differences not only affect normal trade flows but also increase cross-border economic friction and cooperation uncertainty (Jianqiang *et al*., 2024) [4].

Conversely, some studies argue that the economic effects of cultural diversity are highly contextual and dualistic. One study found that cultural distance positively affects Turkey's outward foreign direct investment, indicating that cultural differences can yield positive effects under certain conditions through mechanisms such as market complementarity, investment diversification, and institutional arbitrage (Bilgiç *et al*., 2025) [5]. Research on Chinese feather product brands entering the European market shows that although cultural differences create barriers in consumption concepts, aesthetic preferences, and brand perceptions, firms can achieve market integration through localized marketing and cultural adaptation strategies (Chao, 2025) [6]. Additionally, a study on China's cultural product exports found that "cultural discount" creates implicit trade frictions, but cultural trade policies can improve export performance by promoting product quality upgrading and optimizing cultural product supply (Ding *et al*., 2026) [7].

2.2. Mechanisms Through Which Cultural Diversity Affects Export Trade Growth

From a mechanism perspective, cultural diversity affects export trade growth primarily through the following pathways.

First, the transaction cost mechanism. Cultural differences between countries in language, business negotiation styles, contract understanding, and performance monitoring raise firms' information search costs, communication and coordination costs, and institutional adaptation costs. When trading partners have significantly different cultural backgrounds, information asymmetry and transaction frictions are more likely to occur, thereby increasing cross-border transaction costs. Existing research indicates that cultural differences significantly affect exports through the trade cost channel, with larger cultural distance often leading to more pronounced implicit frictions (Qu *et al*., 2015; Tian, 2015) [8, 10].

Second, the consumer preference mechanism. Consumer behavior is not only determined by price and quality but is also profoundly influenced by cultural factors such as values, religious customs, aesthetic preferences, and social norms. Although the EU27 exhibits a high degree of institutional integration, significant differences persist among member

states in consumer culture and social cognition. If the target market differs greatly from China in consumption preferences, brand perceptions, and product acceptance habits, firms' existing product designs and marketing strategies may not directly adapt to the local market, thereby affecting export performance (Tian & Jiang, 2012; Shang & Cui, 2014) [11].

Third, the trust and institutional perception mechanism. Cooperative relationships in international trade are often built on a foundation of trust, which is influenced not only by formal institutions but also by cultural proximity. Countries with similar cultural backgrounds are more likely to reach consensus on behavioral expectations, communication logic, and cooperation rules, thereby reducing transaction uncertainty. Conversely, when cultural differences are large, trading partners are more prone to misunderstandings due to differing value judgments and behavioral patterns, thus raising perceived cooperation risks (Chen & Shen, 2023; Chen & Chen, 2011) [12, 13].

Fourth, the learning and innovation mechanism. Although cultural differences increase short-term adaptation costs, in the long run, exposure to culturally diverse market environments may prompt firms to enhance cross-cultural communication skills, strengthen product adaptation capabilities, and improve international operation proficiency. When facing markets with large cultural differences, firms often need to pay greater attention to market segmentation, brand localization, and product innovation. This pressure may, to some extent, translate into motivation for enhancing export competitiveness.

Overall, the impact of cultural diversity on the growth of China's exports to the EU27 is not unidirectional or linear but exhibits considerable complexity and context dependence. However, in terms of the overall direction, the negative effects of cultural differences—such as increased transaction costs, consumer preference barriers, and weakened trust—are typically more pronounced in the short to medium term, while the positive learning and innovation effects require longer time horizons and larger market investments to materialize. For the specific trade scenario between China and the EU27, given the substantial systemic differences in values, language systems, and social norms between China and Europe, and given that most Chinese export firms are still in the expansion stage of internationalization with nascent cross-cultural capabilities, the inhibiting effect of cultural differences likely dominates.

2.3. Research Hypotheses

Based on the above theoretical analysis, this paper proposes the following research hypotheses:

Hypothesis H1: Cultural diversity significantly inhibits the growth of China's exports to the EU27, meaning that the larger the cultural distance between China and an EU member state, the more constrained China's export growth to that country tends to be.

Furthermore, the impact of cultural diversity on export trade growth may exhibit significant heterogeneity depending on the characteristics of the importing country's market. Specifically:

From the perspective of economic development level, consumers in high-income countries have higher demands regarding product cultural attributes, brand identity, and consumption experience, making the consumer preference barrier arising from cultural differences more prominent. Therefore, the inhibiting effect of cultural diversity on exports is stronger.

From a regional geographical perspective, Central and Eastern European countries started large-scale economic and trade cooperation with China relatively later, and bilateral trade relies more on basic trust and cultural identification. Western European countries, in contrast, have established more mature supply chain cooperation systems and stable market channels, which can partially absorb the transaction costs induced by cultural differences.

From the perspective of population size, countries with large populations have ample domestic market capacity, more pronounced consumer stratification, and stronger local manufacturing supply capacity, with higher requirements for the cultural adaptability of imported products. This may amplify the inhibiting effect of cultural differences.

Accordingly, this paper proposes the following heterogeneity hypotheses:

Hypothesis H2a: The inhibiting effect of cultural diversity on China's export trade growth is more pronounced in countries with higher economic development levels.

Hypothesis H2b: The inhibiting effect of cultural diversity on China's export trade growth is more pronounced in Central and Eastern European countries.

Hypothesis H2c: The inhibiting effect of cultural diversity on China's export trade growth is more pronounced in countries with larger population sizes.

3. Research Design

3.1. Model Construction

To examine the impact of cultural diversity on China's exports to the EU27, this paper extends the classic trade gravity model and constructs the following benchmark regression model:

$$lnEX_{ijt} = \alpha_0 + \alpha_1 CD_{ij} + \sum \alpha_k Control_{ijtk} + \mu_i + \lambda_t + \varepsilon_{ijt}$$

where subscript i represents China,j represents each EU27 member state, and t represents year; $lnEX_{ijt}$ is the dependent variable representing the scale of export trade;CD_{ij} is the core independent variable, the cultural diversity index; $Control_{ijtk}$ is the set of other control variables;α_0 is the intercept term α_1 and α_k are coefficients;μ_i is the individual fixed effect, controlling for time-invariant country-specific heterogeneity;λ_t is the time fixed effect, controlling for common shocks over time;ε_{ijt} is the stochastic error term, satisfying classical econometric assumptions.

It is worth noting that since cultural diversity (CD) is a time-invariant variable, its coefficient cannot be directly estimated using conventional panel fixed effects methods when controlling for individual fixed effects. Following the approach of existing studies, this paper employs a country-year two-way fixed effects model in the benchmark regression and identifies the effect using interactions between cultural distance and year dummies, or uses a random effects model for comparison. In robustness tests, this paper further addresses potential endogeneity through instrumental variable methods to ensure consistency of the estimates.

3.2. Variable Definitions and Data Sources

(1) Dependent Variable

The dependent variable is China's export value to EU27 countries (lnEX). Data are sourced from the United Nations

Comtrade database and are natural-log transformed to mitigate heteroscedasticity and enhance the economic interpretation of coefficients.

(2) Core Independent Variable

The core independent variable is the cultural diversity index (CD), reflecting the cultural distance between China and each EU member state. The measurement of cultural diversity is based on Hofstede's six-dimensional cultural model, which decomposes national cultural differences into six dimensions: power distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, long-term orientation vs. short-term orientation, and indulgence vs. restraint. Based on this, the paper uses the composite index method proposed by Kogut and Singh (1988) [15] to calculate the cultural distance between China and each EU27 country, with the formula as follows:

$$CD_j = \frac{1}{6}\sum_{k=1}^{6} \frac{(I_{kj} - I_{kc})^2}{V_k}$$

Where I_{kj} and I_{kc} represent the scores of target country j and China c on the k-th cultural dimension, respectively; V_k represents the variance of the k-th dimension across all sample countries; a larger CD_j value indicates greater cultural distance. As culture is a slow-moving variable with strong historical continuity and path dependence, and does not undergo dramatic structural changes in the short term, this paper follows common practice in existing studies and treats cultural distance as time-invariant.

(3) Control Variables

Based on the classic trade gravity model and related studies, the following control variables are selected:

① Geographical distance (lngeo_dist), measured by the distance between the capitals of China and each EU country, sourced from the CEPII database and natural-log transformed;

② Trade freedom (tf), measuring the degree of trade openness of the importing country, sourced from The Heritage Foundation;

③ Population size (lnPopulation), measured by the total population of the EU country, reflecting market size and consumption capacity, sourced from the World Bank and natural-log transformed;

④ GDP growth rate (GDP_rate), reflecting the economic growth rate and market potential of the importing country, sourced from the World Bank;

⑤ GDP per capita (lnPGDP), measuring the economic development level and consumption capacity of the importing country, sourced from the World Bank and natural-log transformed;

⑥ Exchange rate level (lnEXR), measured by the current exchange rate of RMB against the importing country's currency, sourced from the World Bank and natural-log transformed.

Table 1: Variable definitions and data sources

Variable Name	Variable Definition	Data Source
lnEXijt	Log of China's export value to EU country	UN Comtrade
CDij	Cultural diversity index	Hofstede model
lngeo_dist	Log of geographical distance	CEPII
tf	Trade freedom index	The Heritage Foundation
lnPopulation	Log of population size	World Bank
GDP_rate	GDP growth rate	World Bank
lnPGDP	Log of GDP per capita	World Bank
lnEXR	Log of exchange rate level	World Bank

3.3. Sample Selection and Descriptive Statistics

This paper selects panel data from 2000 to 2023 for China and the EU27 as the research sample. After cleaning, 648 valid observations remain, forming a balanced panel dataset.

Table 2: Descriptive statistics

VarName	Obs	Mean	SD	Min	Median	Max
lnEX	648	21.8089	1.641	17.0850	21.76	25.49
CD	648	3.1507	1.035	1.3822	2.97	5.45
lngeo_dist	648	12.9868	0.482	11.7432	13.05	13.89
tf	648	83.0889	5.445	49.8000	85.80	88.00
lnPopulation	648	15.8027	1.356	12.8700	15.94	18.25
GDP_rate	648	2.4996	3.900	-16.0400	2.57	24.62
lnPGDP	648	10.0781	0.688	8.2220	10.06	11.63
lnEXR	648	1.9589	0.105	1.8154	1.93	2.11

The descriptive statistics show that the mean of lnEX is 21.8089, with a median of 21.76, indicating a generally symmetric distribution of export scale across samples; the standard deviation is 1.641, with a minimum of 17.0850 and a maximum of 25.49, suggesting substantial heterogeneity in export scale across observations, providing sufficient variation for mechanism identification. The mean of CD, the core independent variable, is 3.1507, with a standard

deviation of 1.035, ranging from 1.3822 to 5.45, reflecting considerable cross-sectional variation in cultural distance between EU member states and China, enabling identification of the marginal impact of cultural distance on exports.

4. Empirical Results and Analysis

4.1. Benchmark Regression Results

This paper adopts a stepwise inclusion of control variables. The benchmark regression results are shown in Table 3. All models control for country and time fixed effects, with 648 valid observations. Model (1) is a univariate regression with only the core independent variable, cultural distance. Model (2) adds geographical distance and trade freedom to Model (1). Model (3) further includes population size and GDP growth rate. Model (4) is the full benchmark model with all control variables.

Table 3: Benchmark regression results

	(1)	(2)	(3)	(4)
	lnEX	**lnEX**	**lnEX**	**lnEX**
CD	-0.9283***	-0.8796***	-0.6021**	-0.7908***
	(0.2435)	(0.2412)	(0.2367)	(0.2302)
lngeo_dist		2.4897***	2.6270***	2.8753***
		(0.0859)	(0.0862)	(0.4313)
tf		0.0181***	0.0133***	0.0071
		(0.0048)	(0.0047)	(0.0046)
lnPopulation			-1.8338***	-0.9780***
			(0.2740)	(0.2937)
GDP_rate			0.0157***	0.0121**
			(0.0056)	(0.0055)
lnPGDP				0.9577***
				(0.1431)
lnEXR				4.9728*
				(2.7776)
_cons	22.6295***	-9.0160***	17.6657***	-17.6722
	(0.7736)	(1.3660)	(4.2777)	(11.7096)
R2	0.863	0.867	0.877	0.886
N	648	648	648	648

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Regarding the core independent variable, the coefficient of cultural distance (CD) remains negative across all four models and is statistically significant at least at the 5% level. In the full model (4) with all control variables, the coefficient of CD is -0.7908, significant at the 1% level. This result indicates that, after controlling for other relevant factors, a one-unit increase in cultural distance reduces the log of China's export value to EU27 countries by approximately 0.79 units. Hypothesis H1 is supported: cultural diversity significantly inhibits the growth of China's exports to the EU27.

In economic terms, the impact of cultural distance on export trade is nontrivial. Based on the sample mean (3.15) and standard deviation (1.04) of cultural distance, for China exporting to an EU country with mean cultural distance compared to the country with the smallest cultural distance, the log of export value decreases by about 1.40 units, corresponding to an approximate 75% reduction in export value. This underscores that cultural difference is an important implicit constraint on China's export performance to Europe.

The coefficients of control variables generally align with gravity model expectations. The coefficient of geographical distance is significantly positive at the 1% level across all models, indicating that,ceteris paribus, greater distance is associated with larger Chinese exports, primarily reflecting the reality that more distant Western European countries in the EU tend to have larger market sizes and stronger import demand. Trade freedom shows a significant positive effect on exports in Models (2) and (3), though its significance diminishes in the full model. The coefficient of importing country population size is significantly negative, while the coefficient of GDP per capita is significantly positive, suggesting that higher economic development levels and consumption capacity of importing countries are associated with stronger demand for Chinese products. The coefficient of the exchange rate level is significantly positive at the 10% level, consistent with the transmission logic of exchange rate changes on exports.

Regarding model fit, R^2 increases from 0.863 in Model (1) to 0.886 in Model (4), indicating that the selected control variables effectively explain variation in export scale. The direction and significance of the core independent variable CD remain stable throughout the stepwise inclusion of control variables, with no sign reversal or loss of significance.

4.2. Robustness Tests

To verify the reliability of the benchmark regression conclusions, this paper conducts robustness tests from five dimensions. All tests follow the two-way fixed effects model specification of the benchmark regression. Results are shown in Table 4.

(1)Excluding pandemic shock years.The COVID-19 pandemic exerted a profound exogenous shock on global trade patterns, with systematic fluctuations in trade values across countries during 2020-2021. This paper re-estimates after excluding the 2020-2021 sample. Results are shown in column (1). The coefficient of CD is -0.7728, still significantly negative at the 1% level, closely approximating the benchmark coefficient of -0.7908, and the core conclusion remains unchanged.

(2)Excluding financial crisis years.The 2008-2009 global

financial crisis triggered a sharp contraction in trade, which may affect the estimates. This paper re-estimates after excluding the 2008-2009 sample. Results are shown in column (2). The coefficient of CD is -0.8607, significantly negative at the 1% level, with only a slight increase in absolute value compared to the benchmark, and the core conclusion still holds.

(3)Lagged dependent variable.To mitigate reverse causality concerns, this paper re-estimates using one-period lagged lnEX as the dependent variable. Results are shown in column (3). The coefficient of CD is -0.8639, significantly negative at the 1% level, indicating that even considering potential reverse causality, the inhibiting effect of cultural distance on exports remains robust.

(4)Winsorization. This paper winsorizes all continuous variables at the 1st and 99th percentiles to rule out extreme value interference. Results are shown in column (4). The coefficient of CD is -1.0691, significantly negative at the 1% level, confirming that the core conclusion is not driven by a few extreme outliers.

(5)Clustered standard errors. This paper clusters standard errors at the country level. Results are shown in column (5). The coefficient of CD is identical to the benchmark (-0.7908) and remains significantly negative at the 1% level, further validating the statistical reliability of the benchmark results.

Table 4: Robustness tests

	(1)	(2)	(3)	(4)	(5)
	lnEX	**lnEX**	**F.lnEX**	**lnEX_w**	**lnEX**
CD	-0.7728***	-0.8607***	-0.8639***		-0.7908***
	(0.2334)	(0.2340)	(0.2255)		(0.1624)
lngeo_dist	2.8566***	2.9016***	1.4328***		2.8753***
	(0.4362)	(0.4359)	(0.2919)		(0.3615)
tf	0.0058	0.0074	0.0145***		0.0071
	(0.0047)	(0.0048)	(0.0045)		(0.0120)
lnPopulation	-0.8665***	-0.8708***	-1.3140***		-0.9780*
	(0.3237)	(0.3019)	(0.3109)		(0.5630)
GDP_rate	0.0157***	0.0151**	0.0133**		0.0121
	(0.0058)	(0.0062)	(0.0055)		(0.0086)
lnPGDP	1.0924***	0.9886***	0.5785***		0.9577**
	(0.1576)	(0.1479)	(0.1472)		(0.3655)
lnEXR	5.1410*	5.2241*	-3.2439**		4.9728***
	(2.8006)	(2.8016)	(1.5383)		(1.4596)
CD_w				-1.0691***	
				(0.2747)	
lngeo_dist_w				0.6272***	
				(0.0472)	
tf_w				0.0117**	
				(0.0047)	
lnPopulation_w				0.7160**	
				(0.3239)	
GDP_rate_w				0.0029	
				(0.0049)	
lnPGDP_w				2.3482***	
				(0.1205)	
lnEXR_w				-2.8860***	
				(0.2719)	
_cons	-20.8622*	-20.3386*	26.0565***	-13.2779**	-17.6722
	(11.9964)	(11.8204)	(8.3047)	(5.6441)	(10.4303)
R2	0.886	0.893	0.866	0.820	0.886
N	594	594	621	648	648

Standard errors in parentheses
* p < 0.1, ** p < 0.05, *** p < 0.01

In summary, across five robustness tests—excluding specific exogenous shock years, eliminating extreme value interference, mitigating reverse causality, and changing standard error estimation methods—the significant inhibiting effect of cultural distance on export scale consistently holds. The core conclusion of this paper is robust.

4.3. Endogeneity Test

Although the benchmark regression controls for two-way fixed effects and undergoes various robustness tests, endogeneity concerns due to reverse causality and omitted variables may still exist between cultural distance and export trade. On one hand, an expansion of bilateral export scale may promote cultural exchange and people-to-people contacts, potentially narrowing cultural distance. On the other hand, unobservable factors such as historical colonial ties and institutional environment differences may simultaneously affect both cultural distance and export decisions.

To mitigate endogeneity, this paper employs an instrumental variable approach using two-stage least squares (2SLS), selecting the one-period lag of cultural diversity (L.CD) as the instrumental variable. The rationale for this instrument is

that cultural distance exhibits strong temporal persistence, making current and lagged values highly correlated (relevance condition). Moreover, the lagged value is historical data and is not affected by current export scale (exclusion restriction).

Table 5: Endogeneity test

	(1)	(2)
	CD	**lnEX**
L.CD	0.7197***	
	(0.2423)	
CD		-1.2998***
		(0.4562)
lngeo_dist	0.0000	
	(.)	
tf	-0.0002	0.0064
	(0.0003)	(0.0070)
lnPopulation	0.1193	-0.9261*
	(0.0869)	(0.4779)
GDP_rate	0.0001	0.0123**
	(0.0004)	(0.0053)
lnPGDP	0.0289	0.8759***
	(0.0239)	(0.1546)
lnEXR	0.0000	
	(.)	
_cons	-1.2780	
	(1.5932)	
R2	0.998	0.150
N	621	621

Standard errors in parentheses
* p < 0.1, ** p < 0.05, *** p < 0.01

Table 5 reports the two-stage regression results. In the first stage, the coefficient of the instrumental variable L.CD is 0.7197, significantly positive at the 1% level, and the first-stage R^2 is as high as 0.998, indicating no weak instrument problem. In the second stage, the coefficient of CD is -1.2998, still significantly negative at the 1% level. The absolute value of this coefficient is larger than the benchmark coefficient of -0.7908, suggesting that the benchmark regression, affected by endogeneity, somewhat underestimated the inhibiting effect of cultural distance on exports. Hypothesis H1 remains supported after addressing endogeneity.

4.4. Heterogeneity Analysis

The preceding analysis has established that cultural diversity significantly inhibits export trade growth, but this effect may vary systematically depending on the characteristics of the importing country's market. To deeply examine the heterogeneity of the trade effects of cultural diversity, this paper conducts subgroup regressions from three dimensions: economic development level, regional geographical location, and population size. Results are shown in Table 6.

Table 6: Heterogeneity analysis

	(1)	(2)	(1)	(2)	(1)	(2)
	lnEX	**lnEX**	**lnEX**	**lnEX**	**lnEX**	**lnEX**
CD	-0.6965***	-7.1080**	-4.0214	-0.5540**	-33.0775***	-0.8862***
	(0.2318)	(3.2746)	(3.7328)	(0.2224)	(11.9736)	(0.2873)
lngeo_dist	2.0969***	3.5634***	3.3668***	2.6914***	2.4085***	2.1436***
	(0.5978)	(0.5722)	(0.6373)	(0.5857)	(0.4086)	(0.7626)
tf	0.0248**	-0.0022	-0.0019	0.0227	-0.0036	0.0106
	(0.0104)	(0.0050)	(0.0054)	(0.0185)	(0.0050)	(0.0068)
lnPopulation	-1.2624***	3.7190***	0.1071	-1.9490***	0.2242	-0.6401
	(0.4785)	(0.6571)	(0.4164)	(0.5180)	(0.4167)	(0.4165)
GDP_rate	-0.0028	0.0277***	0.0245***	0.0017	0.0090	0.0117
	(0.0088)	(0.0073)	(0.0074)	(0.0096)	(0.0061)	(0.0082)
lnPGDP	1.1058***	1.2678***	0.9698***	0.6623**	1.1600***	1.6410***
	(0.2717)	(0.2016)	(0.2122)	(0.2975)	(0.1775)	(0.2626)
lnEXR	1.2901	7.8647**	7.2055*	3.6164	3.8985*	2.8408
	(3.8495)	(3.6133)	(3.9988)	(3.7640)	(2.2762)	(4.8535)
_cons	1.4976	-92.1268***	-36.5118*	5.4024	71.7574*	-17.9549
	(16.6887)	(18.7200)	(19.7664)	(16.5304)	(40.0795)	(19.8444)
R2	0.860	0.930	0.905	0.876	0.960	0.860
N	336	312	336	312	322	326

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

(1)Heterogeneity by economic development level.Columns (1) and (2) show that, regardless of whether the country is in

the low or high economic development level group, the coefficient of cultural distance is significantly negative, but the magnitude of the effect differs markedly. In the low-development group, the CD coefficient is -0.6965, significant at the 1% level; in the high-development group, the CD coefficient is -7.1080, significant at the 5% level, with an absolute value approximately 10 times that of the low-development group.Hypothesis H2a is supported.The economic logic behind this result is that consumers in high-income countries place greater emphasis on product cultural attributes, brand identity, and consumption experience, and are more sensitive to cultural differences, thus amplifying the inhibiting effect of cultural distance. Conversely, consumers in low-income countries focus more on price-performance ratio and functional practicality, making the trade-hindering effect of cultural differences relatively weaker.

(2)Heterogeneity by regional geographical location.Columns (3) and (4) show that in the Western European group, the CD coefficient is -4.0214 but does not pass conventional significance levels; in the Central and Eastern European (CEE) group, the CD coefficient is -0.5540, significantly negative at the 5% level. Hypothesis H2b is supported.This result aligns with the realities of China-EU bilateral trade: CEE countries started large-scale economic and trade cooperation with China relatively later, and bilateral trade relies more on basic trust and cultural identification, so the communication costs induced by cultural differences are directly reflected in trade volumes. Western European countries, in contrast, have a long history of economic and trade exchanges with China, with mature supply chain cooperation systems and stable market channels. The long-term cooperation has partially absorbed the transaction costs arising from cultural differences.

(3)Heterogeneity by population size.Columns (5) and (6) show that the cultural distance coefficient is significantly negative at the 1% level in both groups, but the magnitude difference is stark. In the high-population group, the CD coefficient is -33.0775; in the low-population group, it is -0.8862, with the former being approximately 37 times larger in absolute value than the latter.Hypothesis H2c is supported.The economic interpretation of this result is that large-population countries have ample domestic market capacity and more pronounced consumer stratification, with consumers demanding higher cultural alignment of products with the local market. Moreover, large-population countries typically have more developed local manufacturing systems, making it more difficult for imported products with insufficient cultural adaptation to compete with locally entrenched brands. Thus, the inhibiting effect of cultural distance is extremely amplified.

Synthesizing the heterogeneity analysis results, the inhibiting effect of cultural diversity on China's export trade growth is not uniformly distributed but is more pronounced in markets with higher economic development levels, in Central and Eastern European countries, and in countries with larger population sizes. These findings provide empirical support for differentiated market strategies targeting different types of EU member states.

5. Conclusion and Policy Implications

5.1. Research Conclusions

This paper takes China and the EU27 as the research subjects, based on panel data from 2000 to 2023 within an extended gravity model framework, to systematically examine the impact of cultural diversity on the growth of China's export trade to the EU27. Through benchmark regressions, robustness tests, endogeneity tests, and multiple heterogeneity analyses, this paper draws the following main conclusions.

First, cultural diversity significantly inhibits the growth of China's export trade to the EU27. Benchmark regressions show that for each one-unit increase in cultural distance between China and an EU member state, the log of export value decreases by approximately 0.79 units. This result remains robust across various model specifications. This conclusion indicates that cultural differences are not merely abstract background variables but materially affect export performance by raising communication costs, strengthening consumer preference barriers, and increasing market adaptation difficulties.

Second, the inhibiting effect of cultural diversity on exports exhibits significant market heterogeneity. From the perspective of economic development level, the inhibiting effect in high-income countries is approximately 10 times that in low-income countries. From a regional perspective, the effect is statistically significant in Central and Eastern European countries but not in Western European countries. From the perspective of population size, the inhibiting effect in large-population countries is as high as 37 times that in small-population countries. This indicates that the trade-hindering effect of cultural differences is not uniformly distributed but is more prominent in markets with higher consumer demands and greater sensitivity to cultural adaptation.

Third, after addressing endogeneity concerns, the inhibiting effect of cultural diversity on exports becomes even more pronounced. Estimates using instrumental variable methods suggest that the benchmark regression may have underestimated the true impact of cultural distance. This further confirms the importance of cultural diversity as an implicit trade constraint, which deserves full consideration in trade policy and market strategies.

5.2. Policy Implications

Based on the above conclusions, this paper proposes the following recommendations.

First, implement differentiated country-specific market strategies and abandon the perception of "EU homogeneity." Chinese firms should not treat the EU27 as an undifferentiated unified market. Instead, they should develop refined market entry and maintenance strategies based on differences in cultural distance, economic levels, and market sizes across member states. For member states with smaller cultural distance and similar institutional environments, firms can increase market investment and brand building. For countries with larger cultural distance and higher market entry barriers, a gradual entry approach with localized partnerships may be more appropriate to reduce risks.

Second, enhance the cross-cultural adaptability of export firms. The inhibiting effect of cultural diversity largely stems

from communication costs and consumer preference differences. Firms should invest in systematic research on the target market's culture, including language habits, consumer psychology, aesthetic preferences, and business etiquette, and strengthen local adaptation in product design, brand communication, and after-sales service. Particularly in high-income and large-population markets, where insufficient cultural adaptation incurs greater losses, these should be prioritized as focal areas for cross-cultural capability building.

Third, emphasize cultural cognition development in Central and Eastern European markets. The study finds that cultural distance has a more significant inhibiting effect on China's exports to Central and Eastern Europe, indicating that cultural differences remain an important obstacle to trade expansion in this region. Firms should strengthen cultural exchanges and business interactions with CEE countries. Governments and industry associations can facilitate mutual understanding through activities such as exhibitions, cultural promotion events, and business training, thereby reducing the implicit barriers created by cultural distance.

Fourth, increase the weight of cultural dimensions in trade risk assessment. Chinese export firms' risk assessments currently focus mostly on economic and political indicators, with insufficient consideration of cultural factors. The evidence in this paper shows that cultural diversity has a persistent impact on exports that is not easily offset by short-term factors. Firms should incorporate cultural distance into their country risk assessment systems as a reference dimension for market selection and resource allocation.

Fifth, establish long-term mechanisms for cultural exchange and cooperation. Although cultural distance is a slow-moving variable, it is not immutable. In the long run, expanding student exchanges, people-to-people visits, and cultural and sports cooperation can gradually reduce cultural cognitive distance and create a favorable soft environment for bilateral trade.

Reference

1. Yu B, Zhong X, Ghimire B, *et al*. When trade meets tradition: Unpacking cultural differences and their impact on China's international trade. Int Rev Financ Anal. 2025;106:104488.
2. Ailan L, Cuicui L, Zhixuan W. Does cultural distance hinder exports? A comparative study of China and the United States. Econ Model. 2021;105:105655.
3. Jason QCJ T. Cultural Distance and International Trade. Open Econ Rev. 2023;35(2):283-300.
4. Jianqiang S, Fahmida M, Yumei C, *et al*. Cultural distance, language dissimilarity and trade disputes. Appl Econ. 2024;56(8):941-955.
5. Bilgiç E, Ölmez F, Skabic KI. Is Cultural Distance Beneficial? Evidence from Outward FDI Flows in an Emerging Market Context. South East Eur J Econ Bus. 2025;20(2):100-119.
6. Chao G. Cultural Distance-Driven Obstacles and Localization Breakthroughs for Chinese Feather Product Brands Entering the European Market. J Bus Econ Res. 2025;1(8).
7. Ding Z, Li Y, Wang Y, *et al*. How cultural trade policy shapes export performance? A theoretical and empirical study of China's cultural product exports. Econ Model. 2026;157:107498.
8. Tian H. Regional differences in the impact of national cultural distance on China's import and export trade. Econ Geogr. 2015;35(2):22-29. (in Chinese)
9. Tian H, Jiang CC. The impact of national cultural distance on China's foreign trade: A gravity model analysis based on data from 31 countries and regions. Int Trade Issues. 2012;(3):45-52. (in Chinese)
10. Qu RX, Yang X, Liu Y. Cultural differences, trade costs, and China's cultural product exports. World Econ. 2015;38(9):130-143. (in Chinese)
11. Shang YH, Cui HF. The impact of cultural distance on bilateral trade between China and Central and Eastern European countries: An empirical analysis based on a modified gravity model. Jianghan Trib. 2014;(7):58-62. (in Chinese)
12. Chen DQ, Shen LY. National cultural diversity and overseas operating performance of multinational enterprises: An analysis from the host country perspective. Int Bus. 2023;(3):141-156. (in Chinese)
13. Chen H, Chen XM. The impact of cultural distance on export trade: An empirical test based on a modified gravity model. China Econ Issues. 2011;(6):76-82. (in Chinese)
14. Hofstede G. Culture's Consequences: International Differences in Work-Related Values. Beverly Hills: Sage Publications; 1980.
15. Kogut B, Singh H. The effect of national culture on the choice of entry mode. J Int Bus Stud. 1988;19(3):411-432.

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