Does Cultural Distance Matter in China's Trade Disputes?

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ARTICLE INFO

ABSTRACT

Purpose: The purpose of this study is to examine the role of cultural distance in China's trade dispute participation with trading countries. China's increased engagement in WTO trade dispute settlement with culturally dissimilar trade partners has drawn worldwide attention and has a substantial impact on global trade.

Methodology: Using panel probit model, and a comprehensive hand-collected dataset consisting of WTO trade disputes data, Hofstede cultural dimensions, other trade and macroeconomic data between China and its 110 trading partners from 2001 to 2019, empirical analysis have been conducted. To check robustness of the main results also used alternative models and culture data.

Findings: The findings indicate that China's cultural distance with trading partners increase their trade disputes probability. Moreover, the empirical results also evidenced that China can be involved in trade disputes with culturally distinct high- and middle-income trade partners. Countries under Belt and Road Initiative program and having FTA with China are less likely to be involved in trade disputes.

Practical Implications: This study provides a useful reference to trading countries about the cultural distinctness of China and its role in disputes activities that should be considered carefully. The policy makers should consider the cultural distinctiveness of China while conducting trade related activities.

Originality: The key contribution of this paper is to provide a connection between China's trade disputes and cultural distance, and also provide empirical evidence that cultural distance is significant determinant of China's trade disputes with trading partners.

Limitations: This study focuses on China's trade conflicts with its trading partners. For further research, other cultural distance metrics and cultural data sources can be investigated.

1. Introduction

This paper aims to examine the role of cultural distance in China's trade disputes with trading countries. Recently, the growing participation of China in the WTO trade dispute settlement with the US, Canada, and other trading partners has drawn worldwide attention. China's ongoing WTO trade disputes with partner countries indicate cultural clashes between Confucian and Western culture (Lu, 2018). WTO members' cultural differences can be evidenced from their trade attacking policies such as US measures that have been characteristically defensive, protecting declining industries. While Chinese actions have been characteristically offensive, promoting nascent industries. Chinese national culture directly impacts country's trading behavior.

Several studies have been conducted to analyze China's trade disputes with partners from trade, economic and political perspectives but few studies conducted from a cultural perspective. Trade

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dependencies revealed comparative advantage of Chinese goods and industries, the trade deficit with China is the major reasons that motivate trading partners to involve in trade disputes with China (Lu, 2018; Luo, 2007; Shen & Gu, 2007). The study of Hufbauer and Woollacott (2012) highlights the upsurge of China as a new economic power, bringing hope to other developing countries and challenging the position of developed countries, is probably one of the underlying reasons why there are trade tensions around the world. Wang (2019) highlights recent trade disputes between China and the US reflect the cultural clash between Confucian patience and Trumpian aggressiveness. Trading countries' national cultural differences not only hamper trade but also encourages trade disputes. China's trade disputes with the US and the developed world mostly represent cultural clashes. The study of Shi-xu (2014) highlights that trade disputes between China and its neighboring countries, including Japan and South Korea, can be treated as social issues and intra-cultural phenomena, but when with other countries with distinct cultures, it becomes worst for both parties to ensure proper communication and understandings. This study also showed that China and the EU are having a dispute overshoe exports from 2005 to 2010 indicate that the cultural and language differences between China and EU increase their trade disputes duration and increase difficulties to settle disputes.This case aware other countries should focus on China's intercultural nature and characteristics (conflict resolution) in the discourse, also described by the study of Bown and McCulloch (2009).

This paper contributes to the literature by providing empirical evidence of the influence of cultural differences on China's trade disputes with trading countries. Thus, use a comprehensive dataset consisting of China's cultural distance data with 110 trading countries and 65 WTO trade dispute cases from 2002 to 2019. The Hofstede score is used to measure the general cultural distance between China and its trade partners. Using Probit regression, find that the probability of China's involvement in a trade dispute is significantly positively related to the cultural distance at the 1% significant level. The results indicate that an additional unit increase of China's cultural distance with a trade partner increase on an average 83.62% higher probability of being involved in a trade dispute at a 1% significant level.   The cultural effect on China's trade disputes is economically large compared to the mean value of China's trade dispute variable (TD) of 0.66%. This paper further considers language aspects of cultural distance. The Chinese language is the most distinctive language in the world. For trade purposes, China mostly uses English as lingua franca, which is different from Chinese. The empirical results indicate that if China has language barriers with trade partners, the probability to involve in trade disputes increase by 10.22% with a significant level of 1%. China's language barriers with trading partners create challenges for China as well trading partners to ensure proper communication, reduce ambiguity, and less effective negotiation. These results also showed the importance of Chinese language to become the lingua franca or English to be adopted by China properly as lingua franca to reduce language barriers and facilitate proper communication.The empirical results also indicate that China's cultural distance with high-income countries increases trade disputes probability by 62.77%, with middle income countries, the probability of involvement in trade disputes increases by 48.81%, with low-income countries increase trade disputes likelihood by 0.087%. These results also evidenced that cultural distance is a significant independent determinant of trade disputes that don't affect income level. China can involve in trade disputes with culturally distinct trade partners regardless of income level disparities.

The key contribution of this paper is to provide a connection between China's trade disputes and cultural distance, as well as to demonstrate that cultural distance is a major determinant of China's trade disputes. Therefore, we verify the empirical results using alternative model, the alternative formula for calculating cultural distance and alternative cultural distance dataset and the findings remained essentially robust. This paper is prepared in the following order. Section 2 includes the related literatures, proposes hypothesis. Section 3 defines the data and the econometric model. Empirical results describe in section 4 with robust check. The section 5 discusses the possible policy implications and section 6 describe the concluding remarks.

2. Background and Hypothesis

Chinese culture is one of the world's primogenital cultures. Historically, Chinese civilization is considered the central culture of East Asia and has a significant impact on Asian philosophy, politics, business, religious virtue, custom, and traditions. Chinese culture emphasizes on Confucianism philosophy, harmony, strong relationships, trust, and unity. These attributes make China culturally distinctive from other countries. The trade conflicts between China and trading partners such as the United States, Canada, Mexico, and the European Union represent the national cultural differences among them through their aggressive and retaliating policies and behaviors.

After getting full membership of WTO in 2001, China becomes the most frequent participant in WTO dispute settlement. China is often involved in trade disputes with trading countries due to trade deficit, misunderstanding, improper communication, difficulties in understanding rules and regulations, and sometimes political reasons. Gómez-Altamirano (2015) describes the trade disputes between China and Mexico due to their fight to capture the US market. Chinese products have been suspected of instigating severe competitiveness difficulties for Mexican industries, resulting in serious market disruption. To save domestic products and increase competitive quality Mexico imposed restrictions on Chinese export. Cultural protectionism arises in Mexico to protect local goods and industries.

Trade disputes between the US and China recently most talked topic. These conflicts are often called cultural conflicts between Chinese confusion culture and Trumpian impatience attitude. Xiandeng and Yanlin (2018) describe that the US political parties (Republican, Democrat, Libertarian, and Green Parties) have different economic and foreign policies. China became the US's largest trading partner and became the most dominant party in global trade; the US and China's trade relationship has become a compassionate political issue in recent US presidential elections. Hufbauer and Woollacott (2012) cover Sino-US trade relationships focusing on historical economic exchange, cultural and political hostility. Cultural differences impact easily notify these studies. Xia, Kong, Ji, and Zhang (2019) analyze the impacts of the recent China-US trade war and examine both countries' suffering from this ongoing trade war it seems cultural clashes than trade policy clash. Mirus (1994) and Y. Yu (2018) describe that the Trump Administration justified the US-China trade war that primarily was triggered by China's large trade surplus against the US. Culturally proactive US cannot bear the dominance and dependencies on others. Feng (2018) gives insight into US-China economic, cultural, and political relationships. It summarizes the trade and economic policies adopted by the Trump Administration in general, particularly toward China, due to reduce dependencies and increase America dignity for not dependent on anyone. The US is the

most culturally distinct country in the world and has a culture to exercise power and dominance. To keep the dominance and power, the US tried several times to impose restrictions towards trading partners.

The trade dispute case between China and the US regarding publications and audiovisual content represents cultural differences influence (WTO, 2017). This case was considered significant because it was the first case of cultural trade after adopting the 2005 UNESCO Convention (Rostam J, 2015). In this case, the US is concerned about China's administrative measures related to news and movie industries and audiovisual and sound recording productions (including electronic publications, books, periodicals, newspapers, and magazines). This case confirmed that cultural security is a critical priority in China's management of its cultural diversity (WTO, 2010). China argued that only the contents of the films are taxed by China, not the films that were imported (L. Yu, 2011). Ultimately, China was governed by a WTO panel, and the misunderstanding between contents and goods was revealed though not resolved. This case further illustrates misunderstandings, ambiguity, improper communication, and difficulty in understanding rules that motivate trading countries to participate in trade disputes with China. Mahadevan and Nugroho (2019) focus that the trade dispute between the US and China is seriously considered as Confucian and American cultural conflicts.

In general, Cultural dissimilarity between China and its trading countries is the critical source of informational cost and uncertainty that creates an obstacle in bilateral trade relationships. Cultural distance incurred costs due to imperfect information, communication gaps (Fink, Mattoo, & Neagu, 2005) and ambiguity (Beracha, Fedenia, & Skiba, 2014), differences in religion and language (Jan & Jarko, 2016). The further the cultural distance, the more challenging it is for both sides to understand the trading rules and regulations and export markets (Korneliussen & Jörg, 2008).

Trade disagreements are made easier by cultural differences, which function as tariff barriers (Gokmen, 2013). Trade restrictions and practices might be difficult for countries to comprehend due to cultural differences (Korneliussen & Jörg, 2008). Uncertainty arises as a result of misunderstanding (Hutchinson, 2003) and hazy information on trade norms and regulations, which in turn leads to commercial disputes (WTO, 2017). Cultural distance promotes trade disputes by motivating restrictive trade policies. The possibility of facing protectionism due to protecting local products represents local culture (Christopher, 2012) and reduce dependencies on foreign products by imposing trade restrictions (Geertz, 1973). Therefore, China's continuous trading with culturally distinct countries and more dependencies on foreign products, foreign countries arise the trade protectionism issue also.

From the above discussion, it is confirmed that China's trade dispute participation with trading partners highly influenced by national cultural differences. Therefore, propose the flowing hypothesis,

> *H1: The greater the cultural distance between China and its trading countries, the higher the possibility to involve in trade dispute.*

2.2 The Effects of Language Barriers

The Chinese language is the world's most difficult and unique language. China has language barriers with most of its trading partners. To facilitate trading activities in China, use English mostly as trade

language different from their native or spoken language. In Taiwan and Macao, Portuguese, French, and Spanish are also used as trade language. English and Chinese language are totally different from each other. To pass on the message of the manufacturer to the target customers, translation acts as a bridge for China's business. Differing views on the value, values, esthetic levels, definitions of morality are responsible for cultural diversity. The radical cultural discrepancies between Chinese and English profoundly affect publicity translation. Another common explanation for English and Chinese misconnection is that people ignorant of Chinese conditions or English is a misapplication of politics and economics due to different beliefs and cultural values. It is firmly believed that trade countries that best express and affirm key cultural values with others can ensure the most successful communication, but adopting a separate language from native it is difficult.

The importance of the Chinese Mandarin as a political instrument for the unification and growth of national identity and economic mobility in China. So, using different language as trade language increase protectionism also. China's language barriers with trading partners also influenced its trade dispute participation. Language barriers are particularly critical during international trade conflicts as trade partners scuffle to communicate what they need or even get essential information regarding policies or regulations. It is challenging for trading nations to correctly identify each other's trade legislation and guidelines due to disparate languages, norms, and perceptions (Korneliussen & Jörg, 2008). Uncertainty concerning trade norms (Toshitaka, Sergey, & Jacques-François, 2019) and regulations breeds ambiguity (Konara, 2020), which frequently results in trade disputes. Overall, communication incapability arises when China has language barriers with trading involved in trade disputes with ambiguity, lack of information, and less confidence. Due to language barriers, China needs to hire people to conduct their trade dispute settlement process, which raises costs. Language barriers further increase communication, and information costs increase administrative costs to attend the dispute's settlement. Therefore, propose the following hypothesis,

> **H2:** *Language barriers between China and its trading countries increase trade disputes probability.*

3. Data and Model Specification

3.1 Data and Variables

A hand-collect dataset of trade disputes between China and its trading partners from 2001 to 2019 is used. Therefore, investigate China, its 110 trading partners, trade disputes and other related variables data for a long period of 18 years. In addition, consider European Union (EU) countries rather than EU as a whole. Each country-pair involvement in a trade dispute is collected from WTO trade disputes database. With the United States and EU, China most frequently involved in trade disputes within these 18 years.

This paper uses the Geert Hofstede index (Hofstede, 1980) to proxy the cultural distance , which is the most widely used measurement for the cultural difference in cross-cultural research (Evans, 2002). Kogut and Singh's cultural distance index has become an essential variable in international business and management research (Cuypers, Ertug, Heugens, Kogut, & Zou, 2018). Based on Hofstede's six dimensions of national culture scores, construct the composite measure of cultural distance between countries following Kogut and Singh (Kogut, 1988) as shown in the following equation.

$$CD\_KSI_{China,j} = \sum_{k=1}^{6} \frac{\left\{ \frac{\left(I_{k,j} - I_{k,China}\right)^2}{V_k} \right\}}{6} \qquad (1)$$

where $CD\_KSI_{China,j}$ $(j = 1,2,…,110)$ is the cultural distance between country $China$ and country j and $I_{k,China}$ $(k = 1,2,…,6)$ is the value of $China$ in the $k$dimension of the Hofstede index. The Hofstede index's six dimensions are individualism/collectivism, power distance, indulgence versus restraint, uncertainty avoidance, long-term orientation, and masculinity/femininity. V_k is the sample variance of k dimension $I_{k,.}$.

To capture the language aspects of cultural distance, use the *language barrier* index. Language barriers are meaningfully negatively correlated with bilateral trade (Lohmann, 2011). Based on Lohmann, we also consider official languages dissimilarity to calculate the language barrier between China and its trading partners using World Atlas of Languages data. The variable $LB_{China,j}$ $(j = 1,2,….110)$ takes 1 if China and country j have no common language features, otherwise 0. LB takes one indicates that the two countries have language differences. The two languages are identical, and one means two languages have no features in common (e.g., China & Brazil).

Besides, control country-level economic and international trade variables, GDP, Import, Export, World Trade Share, Free Trade Agreement (FTA) and Belt & Road Initiative (BRI). The GDP indicate Chinese economic growth, and the GDP ratio GDP_{China}/GDP_j is used to measure relative market size. The ratio of export over import $(Exp_{China,j}/Imp_{China,j})$ is used to measure the trade surplus. Free Trade Agreement $(FTA_{China,j})$ is widely used toreduce trade distortion between countries. In this paper we check for China how FTA works. The data for GDP is from World Bank GDP data, for Import and Export is from WITS database, and for FTA is collected from "China FTA Network provided by Ministry of Commerce, Peoples Republic of China". This chapter also used GDP_{China} to measure the economic growth of China. The GDP variable is used as a proxy to check how a China's economic growth affects its participation in trade disputes. World Trade share $(World\ Trade\ share_{China,})$ indicate the percentage of world total trade. This variable indicates China's contribution to world trade and data collected from World Bank trade data. The data of BRI is collected from China International Trade Institute. The Belt and Road Initiative is a large project of China aiming to improve regional cooperation through better connectivity among countries lying on the ancient Silk Road and beyond.

Table 1. Summary of Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
$TD_{China,j}$	3547	0.0662	0.2488	0	1
$CD_{China,j}$	2053	2.1151	0.0662	1.9520	2.2507
$LB_{China,j}$	3547	0.2985	0.4577	0	1
$FTA_{China,j}$	3547	0.1491	0.3563	0	1
$BRI_{China,j}$	3525	0.2159	0.4115	0	1
$World\ Trade\ share_{China}$	3547	5.7041	1.2341	1.5263	11.6253
$Exp_{China,j}/Imp_{China,j}$	3547	1.6534	7.3307	-37.9167	342.434
GDP_{China}	3547	3.9946	0.3904	2.7851	3.9458
GDP_{China}/GDP_j	3510	0.9878	0.2059	0.6039	1.6005

Source: Authors calculation

The descriptive statistics summarized in Table1. From 2001 to 2019, China involved in trade disputes with 6.62% of its trading partners. The mean cultural distance is 2.1151, with a minimum value of 1.9520 and a maximum of 2.2507. China has language barriers with 29.85 % of its trading partners.

3.2 Model Specification

Existing research has yielded a variety of insights about the factors that influence countries' willingness to participate in WTO trade conflicts. According to Horn, Mavroidis, and Nordström (2005), the number of trade conflict initiations is fairly well described by the level of trade and the diversity of trade partners. Chad P. Bown (2005), on the other hand, argues that measurements of a country's retaliatory or legal capability are also important. To investigate the impact of the cultural distance on China's trade disputes, we propose the following panel probit model. More specifically, we assume that the probability that China involves in trade disputes with country j in year t is defined by

$$Prob(TD_{China,j,t} = 1 | X'_{China,j,t}, \varepsilon_{China,j,t}) = \Phi\left(X'_{China,j,t}\beta + \varepsilon_{China,j,t}\right)$$

$$= (\beta_0 + \beta_1 X^1_{China,j,t} + \beta_2 X^2_{China,j,t} + \dots + \beta_n X^n_{China,j,t} + \varepsilon_{China,j,t}) \qquad (2)$$

where $X'_{China,j,t}$ is a vector of regressors including various factors that explain China's participation in trade disputes with trading countries, $\varepsilon_{China,j,t}$ is an error term capturing unobserved factors, with $\varepsilon \sim N(0,1)$; βs are the parameters to be estimated, and Φ is the CDF of the standard normal distribution. The average probability effect of an individual variable can be interpreted as the effect of a unit change in the independent variables of interest on the probability that China involvement in trade disputes with a trade partner.

4. Empirical Results

4.1 Base Results

In this section first discuss the empirical results and then robust checks. Table 2 shows the results of the panel probit model and confirms the cultural distance hypotheses significantly. To examine the economic significance of China's cultural differences with trading partners, consider the average probability effects. Empirical results of the model (1) and (2) of Table 2 show that the probability of trade dispute occurrence is significantly positively related to the China's cultural distance with trading partners, at a significant level of 1% and support our cultural distance hypothesis. Model (2) shows that the average probability of CD on TD is 0.8362. More importantly, the probability effects imply that a one-unit further increase in cultural distance between China and its trading countries increases the average occurrence probability of trade conflict by 83.62 %.

Table 2 further indicate that Language barriers positively and significantly impact China's trade disputes at a 1% significant level. These results also confirm our language barriers hypothesis. The average marginal probability of LB on TD is 0.1022 and statistically significant at the 1% level. The probability effects imply that a country's likelihood to participate in a trade conflict against China averagely increases by 10.22 % as if they have the language barrier.

The results of the controls presented in Table 2 are mostly consistent with the existing literature. Free Trade Agreements($FTA_{China,j}$) is negatively associated with trade conflicts at a

significant level of 1%. The results are consistent with economic intuition that the FTA reduce trade disputes among trading partners and encourage more free-trade policy and less trade protectionism (Kitson & Michie, 1995).Lower the likelihood of trading partners involved in trade disputes (Tan Li & Qiu, 2019).

China's world trade share has positive impact on its trade disputes participation. The more trade, the higher the probability of trade disputes, aligned with many existing literature works (Chad P Bown, 2005; Horn, Mavroidis, & Nordström, 1999). At a significance level of 1 percent, world trade share is positively correlated with trade disputes, suggesting that more substantial trade results in more trade conflicts. The Chinese trade surplus ($Exp_{China,j}/Imp_{China,j}$)is positively connected with its trade disputes with trading partners at 1% significant level. A trade deficit of trading partners with China is one of China's main reasons most frequently involved in trade disputes. China's trade surplus with trading countries motivates partners to initiate trade complaints against China (Hufbauer & Woollacott, 2012; Luo, 2007; Zhang, Haviarova, & Zhou, 2020).

GDP_{China} measures the Economic Growth of China. The results of Table 2 show a positive relationship between GDP_{China} and trade disputes. As China's economic growth increase, it's the possibility to involve in trade disputes also increase. The economic intuition behind this economic growth gives China more financial strength to conduct and initiate trade disputes against trading partners. This outcome supports Jong-Eun (2012) finding that the risk of trade disputes is positively linked to its trading partner market size.

Table 2 also shows a statistically significant and negative correlation between GDP ratio (GDP_{China}/GDP_j) and trade disputes at a level of 1%. The economic instinct behind these results is defined in the theory of power. Guzman and Simmons (2005) and later, Bown and McCulloch (2009) explain that a country with a comparatively greater market size appears to have more market strength to engage in trade disputes more efficiently. China is mostly involved in trade disputes with large countries than in small countries.

As the Belt and Road Initiative (BRI) proposed by China has drawn worldwide attention, empirical results showed that countries with whom China connected with BRI have fewer chances to be involved in trade disputes. BRI is negatively associated with China's trade dispute participation at a 1% significant level.

Table 2. The Effects of Cultural Distance (CD) on China's Trade Disputes

Model	(1)	(2)
Dependent	TD_{China}	TD_{China}
$CD_{China,j}$	1.1408*** (0.1090)	0.8362*** (0.1121)
$LB_{China,j}$	0.1500*** (0.0139)	0.1022*** (0.0124)
$World\ Trade\ share\ _{China}$		0.0202*** (0.0091)
$Exp_{China,j}/Imp_{China,j}$		0.0030*** (0.0011)
$FTA_{China,j}$		-0.1270*** (0.0082)
$\log(GDP_{China})$		0.2279*** (0.0235)
GDP_{China}/GDP_j		-0.3946*** (0.0653)
$BRI_{China,j}$		-0.0273* (0.0116)
Observations	2,054	2,038
Log-Likelihood	-646.6713	-440.8408
R^2	0.5438	0.4745

Source: Authors Calculation

Notes: Robust t Statistics in parentheses. ***/**/* reflect respectively 1%, 5% and 10% significance level.

4.2 Trade Partners with Cultural Distance and Different Income Levels

The political and socioeconomic conditions are usually diverse among countries, and the Chinese government differs in other regional markets (Tadesse, White, & Zhongwen, 2017). The estimated results would be widely distinct accordingly. To investigate do cultural differences affect China's trade disputes participation with trading partners differently according to their income level, introduce three dummy variables: High income (HI_j), Middle income (MI_j) and $Lower$ $income$ (LI_j) trading partners. We rerun the panel probit model (2) and depicted results in Table 3. The results indicate that China is most frequently involved in trade disputes with high- and middle-income trading partners than low-income countries[3]. The results show that if trading partners are high-income countries, the possibility of being involved in trade disputes increases by 3.56% at 1% significant level. To check the cultural distance effect, introduce dummy variables such as ($HI_j * CD_{China,j}$),($MI_j * CD_{China,j}$),($LI_j * CD_{China,j}$). The results of Model (3) indicate if trading partners are high-income countries and have cultural distance, the possibility of being involved in trade disputes increases by 66.77% at a significant level 1%. These results also support the theory of capacity hypothesis that large countries have more capacity and ability to conduct any disputes.

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[3] The income classification is based on a measure of national income per person, or GNI per capita, calculated using the Atlas method provided by The World Bank.

Model (4) indicates that China's trade disputes probability decreases if trading partners are middle income countries. The empirical results showed the possibility not to involve in trade disputes increase by 1.06%. Model (6) showed that if China's trade partners are middle-income countries and have cultural distance, their possibility of being involved in trade disputes increases by 48.81% with a significant level of 5%.

Model (8) further indicates that China's trade disputes likelihood decreases if trading partners are lower income countries. The empirical results revealed that if trading partners are lower income countries the possibility to not to involve in trade disputes is 0.87% with a significant level of 5%. Model (10) showed that when trading partners are lower income countries and culturally distinct from China, their probability of being participated in trade disputes increase by 0.47%. These results confirm that cultural distance hasa different influence on trade disputes than income level. Though trading countries are low-income countries but have more cultural differences with China, they can be involved in trade disputes. Hence, cultural differences have a significant impact on trade disputes beyond the income level.

Table 3. The Effects of China's CD on Trading Partners of Different Income Levels

Income level	High Income Trading Partners		Middle Income Trading Partners		Lower Income Trading Partners	
Model	(1)	(3)	(4)	(6)	(8)	(10)
Dependent	TD_{China}	TD_{China}	TD_{China}	TD_{China}	TD_{China}	TD_{China}
$CD_{China,j}$	0.7954*** (0.1130)	0.5208*** (0.1491)	0.7554*** (0.1130)	0.8128*** (0.1129)	0.6437*** (0.0826)	0.4385* (0.9863)
$LB_{China,j}$	0.0992*** (0.0122)	0.0939*** (0.0124)	0.0992*** (0.0122)	0.1004*** (0.0122)	0.0975*** (0.0432)	0.0986*** (0.0243)
HI_j	0.0356** (0.0135)	1.0848** (0.4211)				
$HI_j * CD_{China,j}$		0.6277*** (0.0332)				
MI_j			- 0.0106*** (0.0151)	- 0.6618*** (0.0139)		
$MI_j * CD_{China,j}$				0.4881** (0.1959)		
LI_j					- 0.0087*** (0.0001)	- 0.0097*** (0.0074)
$LI_j * CD_{China,j}$						0.0047** (0.0005)
$World\ Trade\ share_{China}$	0.0240*** (0.0091)	0.0243*** (0.0089)	0.0241*** (0.0091)	0.0241*** (0.0091)	0.0233*** (0.0001)	0.0245*** (0.0007)
$Exp_{China,j}/Imp_{China,j}$	0.0028*** (0.0011)	0.0025*** (0.0011)	0.0028*** (0.0011)	0.0029*** (0.0011)	0.0027*** (0.0011)	0.0029*** (0.0011)
$FTA_{China,j}$	- 0.1262*** (0.0093)	- 0.1282*** (0.0083)	- 0.1262*** (0.0083)	- 0.1269*** (0.0084)	- 0.1234*** (0.0086)	- 0.1287*** (0.0009)
$log(GDP_{China})$	0.2450*** (0.0242)	0.2424*** (0.0243)	0.2350*** (0.0242)	0.2363*** (0.0242)	0.2550*** (0.0302)	0.2463*** (0.0202)
GDP_{China}/GDP_j	- 0.4745*** (0.0737)	- 0.5254*** (0.0772)	- 0.4745*** (0.0242)	- 0.4704*** (0.0741)	- 0.4645*** (0.0462)	- 0.4860*** (0.0187)
$BRI_{China,j}$	- 0.0267** (0.0114)	- 0.0319** (0.0114)	- 0.0267** (0.0114)	- 0.0278** (0.0114)	- 0.0279** (0.0122)	- 0.0265** (0.0123)
Observations	2,035	2,033	2,035	2,033	2,035	2,033
Log-Likelihood R^2	- 436.9574 0.3246	- 432.2972 0.3986	- 436.9574 0.3425	- 432.2078 0.3387	- 446.4388 0.3764	- 454.2865 0.3945

Source: Authors Calculation

Notes: Robust t Statistics in Parentheses. ***/**/* reflect respectively 1%, 5% and 10% significance level.

4.3 Robust Tests

4.3.1 *Alternative Proxies for Cultural Distance*

To crisscross the robustness of the key findings, re-calculate cultural distance using Kandogan formula and use World Value Surveys (WVS) as an alternate source of data on cultural values.The stability of the scores of Hofstede cultural dimensions is increasingly questioned by Beugelsdijk and Welzel (2018). To recheck our base results regarding the cultural impact on China's trade disputes and to put it into the dynamic perspective of cultural change, we pool nation-level culture measures across four waves from 1994-2014 of the World Value Survey[4].

Thus, use the composite value of two dimensions, traditional vs. secular-rational values, and survival vs. self-expression values. The traditional vs. secular-rational values dimension describes the difference between societies in which religion is significant and those in which it is not. In particular, societies closer to the traditional pole are more likely to display deference to authority and show High degrees of national pride and a nationalistic outlook. In contrast, societies with secular-rational values have opposite preferences. The cultural distance ($WVS\_ED_{i,j}$) between the two countries is essentially the absolute value of the discrepancy between their scores. In contrast, the aggregate distance is the square root of the sum of squared differences.

Based on the discussion above, we rerun panel probit model using cultural distance values measured by Kandogan and WVS to check robustness. Table 4 shows that cultural distance positively impacts China's TD as measured by Kandogan formula and WVS data at a 1% significant level. Model (1) shows that one additional unit increase of CD measured by Kandogan increases the probability of TD by 46.23%, which is similar to our base results. The impact of Cultural Distance (WVS_ED) is at one percent level, also positive and essential. The average probability of increasing cultural distance (WVS_ ED) increases the likelihood of trade disputes by 41.26 %. However, due to data unavailability,[5] the average probability impact (WVS_ED) should be viewed with caution since the number of countries and all waves' data are not available in the WVS for 110 countries. All the findings indicate collectively show that cultural distance increases the likelihood of trade disputes.

Consequently, the evidence also indicates that the cultural index of Hofstede as our principal source of cultural distance data provides relevant results regardless of cultural change.

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[4] The resulting nation-level longitudinal database summarizes the responses of 495,011 individuals surveyed between 1981 and 2014 in 110 countries based on stratified random sampling procedures. Unlike Hofstede who used a matched sampling procedure based on IBM employees, the WVS collect nationally representative samples of a country's entire residential population at the age of 18 and older. The standard procedure to select respondents is a form of random probability sampling, although the details vary due to each country's territorial and demographic specifics (Beugelsdijk & Welzel, 2018).

[5] WVS composite values are collected for 4 waves 1994-1998, 1999-2000, 2004-2009, and 2010-2014. We have collected 50 countries data who are WTO member from this database where Burkina Faso, Croatia, Czech Republic, Dominica, Ecuador, Guatemala, Haiti, Kazakhstan and Kuwait have one wave values and Albania, Armenia, Bangladesh, Bulgaria, Canada, Cyprus and Malaysia have two waves values. (R. Inglehart, C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.), 2014)

Over time, national cultural differences are relatively stable. Cultural change tends to be absolute, and relative country rankings continue to be reasonably stable[6].

Table 4. The Effects of CD: Alternative Formula and Cultural Data

Model	(1)	(3)
Dependent	TD_{China}	TD_{China}
$CD\_Kandogan_{China,j}$	0.4623***	
	(0.0622)	
$WVS\_ED_{China,j}$		0.4126***
		(0.1468)
$LB_{China,j}$	0.1022***	0.0727***
	(0.0124)	(0.0147)
$World\ Trade\ share_{China}$	0.0205***	0.0571***
	(0.0091)	(0.0099)
$Exp_{China,j}/Imp_{China,j}$	0.0030***	0.0089***
	(0.0011)	(0.0015)
$FTA_{China,j}$	- 0.1272***	- 0.1386***
	(0.0083)	(0.0011)
$\log(GDP_{China})$	0.2278***	0.2114***
	(0.0235)	(0.0300)
GDP_{China}/GDP_j	- 0.3954***	- 0.3406***
	(0.0651)	(0.0613)
$BRI_{China,j}$	- 0.0272*	- 0.0251*
	(0.0116)	(0.0149)
Observations	2,038	996
Log-Likelihood	- 352.7543	- 358.7652
R^2	0.5432	0.6763

Source: Authors Calculation

Notes: Robust t statistics in parentheses. ***/**/* imply significance at the 1%, 5% and 10% levels, respectively.

4.3.2 *Poisson Model*

In a given year, China engaged in several trade disputes with different or similar trading partners such as in 2018, China involved in trade disputes 8 times with US. To analyze the effect of cultural distance on the frequency of China's trade conflicts, we reconsider the dependent variable TD from binary (0,1) to as count numbers. To check the frequency of disputes we estimate the Poisson model. Using the poisson distribution, the conditional density of the number of China's trade disputes $TD_{China,j,t}$ is

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[6] B. Inglehart (2000) show that, despite cultural change in a common direction, countries have a unique historical past that continues to shape their national cultures. Hofstede agrees with this modified notion of modernization theory implying the existence of multiple paths to modernity. In Hofstede view, technological modernization is an important driver of cultural change, which leads to somewhat similar developments in different societies, but it does not wipe out variety. It may even increase differences; on the basis of preexisting value systems, societies cope with technological modernization in different way.

$$f\left(TD_{China,j,t}|X_{China,j,t}\ \beta\right) = \frac{e^{-m\left(X_{China,j,t}\ \beta\right)}m\left(X_{China,j,t}\ \beta\right)^{TD_{China,j,t}}}{TD_{China,j,t}!} \qquad (3)$$

Here, $X_{China,j,t}$ is the explanatory variables, the parameter β is obtained by maximizing the log likelihood function.

Table 5 presents the poisson model results. The average probability effects of CD on TD are 0.9686, respectively, which are both statistically significant at the 1% level. The average probability effects of LB on TD is 0.0969, respectively, which are both statistically significant at the 1% level. The statistical and economic significance of these effects are consistent with the results in Table 2 obtained using the panel Probit model, indicating that the empirical results are robust to model choice.

Table 5.The Effects of CD: Poisson Model

Model	(1)
Dependent	TD_{China}
$CD_{China,j}$	0.9686***
	(0.1396)
$LB_{China,j}$	0.0969***
	(0.0128)
$World\ Trade\ share_{China}$	0.0069*
	(0.0106)
$Exp_{China,j}/Imp_{China,j}$	0.0029***
	(0.0017)
$FTA_{China,j}$	0.1269***
	(0.0087)
$\log(GDP_{China})$	0.3014***
	(0.0328)
GDP_{China}/GDP_j	-0.6179***
	(0.0943)
$BRI_{China,j}$	0.0237***
	(0.0126)
Observations	2,038
Log-Likelihood	-653.3532
R^2	0.5684

Source: Authors Calculation

Notes: Robust t statistics in parentheses. ***/**/* imply significance at the 1%, 5% and 10% levels, respectively.

5. Policy Implications

Our findings have significant policy ramifications. In general, Chinese national culture plays an important influence in international trade. The Hofstede cultural dimensions were chosen to capture distinctions in country cultures. We focus on the Confucian culture, which is specific to the situation in China, to study how religion and traditional beliefs affect commercial disputes or clashing

activities. This will be helpful to the policy makers to understand how the Chinese cultural distinctiveness impact it's trade disputes activities.

Nonetheless, we find extremely significant evidence of cultural influence on China's engagement in trade disputes. Subsample comparisons demonstrate that in terms of trade deal with China, cultural distance, including language obstacles, is more important in developed nations than in developing countries. China's participation in trade conflicts with developing countries is quite minimal. These findings significantly support the existing literatures (Adekola Tolulope, 2019; Feng, 2018; Gómez-Altamirano, 2015) that chinese trade disputes with developed countries is more frequent than developing countries. Confucian cultures significantly different from American and European cultures.

Several research demonstrate that Chinese cultures have varying effects on trade. However, our findings strongly suggest that Chinese cultural differences with trading partners have the greatest influence on China's engagement in trade conflicts. Conflicting actions in countries are always motivated by their national cultures. Our findings confirm the clash of civilizations theory, which states that culturally diverse countries are more likely to be involved in wars or conflicts(Gokmen, 2017).

Our findings also demonstrated the significance of language barriers in China's foreign interactions, particularly in trade disputes where negotiation and communication are critical to the outcome. Language and cultural differences may significantly impede the negotiation process based on mutual understanding and reduced antagonism. People doing business or trading with China should also keep in mind that China is the most culturally different country. The value of Chinese cultural and language education and training should be stressed by policymakers. Lingua franca and Chinese language proficiency not only increases communication and mutual understanding, but also delivers economic rewards.

6. Conclusion

This paper describes the impact of cultural differences on China's trade dispute participation with trading partners. From 2001 to 2019, China is the only WTO member after the US most frequently involved in trade disputes. The empirical results indicate that China frequently involved in trade disputes with those trading partners who have culturally distinct. Trading countries' language barriers with China increase trade disputes likelihood due to improper communication, ambiguity, translation problem.

The empirical results also indicate China's trade disputes likelihood increase when trading partners are high-income countries and culturally distinct. Trading countries' language barriers with China increase trade disputes likelihood due to improper communication, ambiguity, translation problem. This paper also investigates FTA, and BRI role in China's trade disputes. This could be another possible solution for China to reduce trade disputes with trading partners through FTA and BRI members.

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