



Impact of Hofstede's Cultural Dimensions and Economic Indicators on Service Trade: an Empirical Analysis from ASEAN

Xiaoxiao Ma^{1,a}, Leong-Mow Gooi^{2,*}

¹Nanjing Tech University Pujiang Institute No.9 Lixue Road, Lishui District, Nanjing, 211200, China

²SEGi University, No 9, Jalan Teknologi, Taman Sains Selangor, Kota Damansara PJU 5, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia

^a21428719@qq.com, *gooileongmow@hotmail.com

Abstract. This study investigates the interplay between cultural values and economic strength in influencing service trade within the Association of Southeast Asian Nations (ASEAN). Drawing on Hofstede's cultural dimensions—Power Distance (PDI), Individualism (IDV), Masculinity (MAS), Uncertainty Avoidance (UAI), and Long-term Orientation (LTO)—and key economic indicators such as GDP, we analyze a panel dataset from six ASEAN countries spanning from 2005 to 2021 using a mixed-effects model. The analysis reveals that higher PDI and MAS levels are associated with reduced service trade volumes, while increased levels of IDV and UAI enhance trade. In contrast, LTO displays a negative correlation, suggesting a preference for short-term strategies in high-trade environments. Additionally, economic strength, as measured by GDP, significantly boosts service trade, highlighting the pivotal role of economic conditions. Financial openness, treated as a random effect, shows a varied impact, indicating the complex effects of monetary policies on trade dynamics. This research underscores the significance of cultural and economic frameworks in shaping service trade in ASEAN, offering insights for policymakers aiming to promote regional economic integration and growth in the service sector.

Keywords: Hofstede's Cultural Dimensions, Service Trade, ASEAN, Economic Indicators, Mixed-Effects Model

1 Introduction

1.1 Introduction to ASEAN's Trade Dynamics

In today's interconnected world, the dynamics of international trade are continually evolving, shaped by a complex interplay of economic policies and cultural differences[1]. The Association of Southeast Asian Nations (ASEAN) serves as a fascinating case study due to its diverse cultural landscapes and significant economic interactions. This research paper aims to dissect the influence of cultural dimensions, as defined by

Geert Hofstede, alongside key economic indicators on the service trade within ASEAN countries[2]. Understanding these relationships is crucial for policymakers and businesses aiming to optimize their strategies in the face of regional integration and global economic shifts.

1.2 The Influence of Hofstede's Cultural Dimensions

Hofstede's cultural dimensions—Power Distance (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS), Uncertainty Avoidance (UAI), Long-Term Orientation (LTO), and Indulgence versus Restraint (IVR)—provide a robust framework to analyze how cultural traits can influence economic activities, including trade[2]. The service sector, pivotal for the economic growth of ASEAN, is particularly susceptible to these cultural factors due to its intangible nature and the direct interaction between service providers and consumers.

1.3 Utilizing Cultural Maps for Regional Insights

To deepen our understanding of how cultural values influence trade within ASEAN, it is crucial to incorporate various cultural analysis methods, such as cultural maps and the Cultural Distance Index (CDI). These tools provide a more detailed and nuanced insight into the complex cultural landscapes of the ASEAN region, which consists of diverse cultural backgrounds and practices[3].

Cultural maps visually represent the distribution and characteristics of cultural traits across different regions. In the context of ASEAN, a cultural map can highlight the geographical spread of cultural dimensions identified by Hofstede, such as Power Distance or Individualism, across member countries. This visual tool allows for an immediate grasp of regional variations and similarities, offering a clear picture of cultural proximities and divergences that may influence trade relationships. By examining these maps, policymakers and businesses can better understand regional cultural clusters and tailor their approaches to suit specific cultural contexts.

1.4 Quantifying Cultural Distances with the CDI

The Cultural Distance Index quantitatively measures the cultural distance between two countries, providing a numerical value that correlates with potential trade challenges or opportunities. In trade analysis, CDI is particularly useful because it can predict the ease or difficulty of trade negotiations, market entry, and operational management based on cultural similarities or differences[3]. For ASEAN, where economic integration is a priority, understanding cultural distances can help in crafting policies that mitigate cultural barriers and enhance cooperation.

Integrating these cultural analysis methods into our study enriches our understanding by not only defining what cultural differences exist but also by illustrating how these differences can quantifiably affect trade flows. For instance, a higher cultural distance might correlate with reduced trade volumes, as seen in studies where significant cultural discrepancies complicate business negotiations and partnership trust. Conversely,

countries with similar cultural values may find greater ease in establishing and maintaining trade relationships, leading to more robust economic exchanges.

1.5 Economic Indicators and Gravity Model

This research introduces the application of economic indicators and the gravity model in analyzing international trade flows. The gravity model is a classic tool used to study trade volumes between countries, predicting trade flows based on a nation's economic size and geographical distance. Additionally, this part explores how financial openness affects international trade through the gravity model. Studies show that although the gravity model has strong explanatory power in describing trade flows between countries, it may overlook key factors in economic growth. Furthermore, Gross Domestic Product (GDP) and GDP per capita have been proven to be significant factors influencing Foreign Direct Investment (FDI), especially when analyzing service trade flows between China and six ASEAN countries, taking into account differences in cultural and financial openness[4]. Through this approach, we can gain a deeper understanding of how cultural and economic factors jointly influence economic interactions and trade patterns within the region.

1.6 Specific Focus on Service Trade

A unique aspect of this research is its focus on service trade, distinct from the more commonly studied goods trade. Service trade involves complex dynamics not fully captured by traditional trade models, as it often requires more direct interaction and is influenced by regulatory environments as well as cultural proximity. Previous studies have predominantly examined the overall flow of trade, but this study specifically addresses the service sector, characterized by significant trade deficits, limited global reach, and inadequate competitiveness in the international market, particularly within China's foreign trade in services. Understanding the dynamics of service trade between China and ASEAN is vital, as it could reveal new opportunities and challenges in one of the fastest-growing regions of the global economy.

This study aims to fill two critical gaps in the existing literature. The first uses Hofstede's cultural dimensions and financial openness to check the trade flow. There is research about culture's impact on trade [1-2]. Also, previous researchers did studies on the relationship between financial openness and trade flow [4-6]. However, there is seldom research on the impact of culture and financial openness together using the gravity model to analyse trade; this study tries to add financial transparency to the model gravity model, which is a new attempt.

The second one is that the preceding researchers are all about the whole flow of trade [7-8]; this study is specific about service trade. A significant trade deficit, limited global development, and inadequate competitiveness in the international market characterise China's service industry foreign trade. [9] To understand the service trade between China and ASEAN countries is necessary.

2 Literature Review

2.1 Interplay Between Cultural Factors and Economic Policies

China's financial openness policy is vital in shaping the service trade dynamics between China and ASEAN countries. Studies show that China's competitiveness in service trade and openness in the service sector are lower than those of ASEAN countries. [10]

Because of that, China has been implementing a series of reforms to increase financial openness and promote economic growth. These reforms include the liberalisation of capital accounts, the expansion of the QFII and RQFII schemes, and the establishment of the Shanghai&Hong Kong Stock Connect and the Bond Connect. These reforms have helped attract foreign investment, strengthened trade relations, and opened up new opportunities for Chinese firms to invest overseas [11].

However, research from 2020 continues to highlight that the underdeveloped potential in China's foreign trade in services is due to low industrial integration, limited high-tech participation, and low comparative advantages, a challenge also faced by many ASEAN countries [9], which means that the opening policy may not directly increase China's service trade competitiveness. This research tries to use China's financial openness as a variable in the gravity model to see whether it can impact the service trade between China and the six selected countries in ASEAN.

2.2 Hofstede's Cultural Dimensions and International Trade

Cultural differences play a significant role in international trade, impacting various aspects such as trade negotiations, consumer preferences, and trade costs. Studies show that while language diversity can impede trade, cultural and religious differences between trading partners can facilitate bilateral trade [12]. However, total cultural distance between countries significantly hinders bilateral trade by increasing trade costs [13] [14]. Moreover, cultural and institutional differences have been shown to reduce China's exports, with the strongest impact observed in high-income countries, followed by low-income and middle-income countries, particularly affecting manufactured products. Addressing these cultural disparities through fostering understanding, cooperation, and tailored strategies is crucial for maximizing the benefits of initiatives like the African Continental Free Trade Area (AfCFTA) and promoting economic growth in regions like Africa [15].

Hofstede's Cultural Dimensions are key factors in shaping international trade dynamics. Research indicates that different cultural characteristics, such as individualism, power distance, uncertainty avoidance, masculinity, and indulgence, affect global trade patterns differently [16] [17]. For instance, Waristi (2014) found that a high power distance index increases trade, while a low IDV increases trade in Indonesia and other ASEAN countries [18]. On the other hand, Ilieş & Zahid (2019) found that the relationship between IDV and trade is positive in Poland, Lithuania, and Romania [19]. Kristjánssdóttir et al. (2017) found a positive link between MAS and trade [20].

Moreover, Fevriera et al. (2021) showed a negative link between MAS and trade; the study also showed a positive link between UAI, LTO and trade in Indonesia [21].

However, Novy & Taylor (2020) found that the link between UAI and trade is negative in the world lever [22]. Cultural values like vertical individualism, horizontal collectivism, and vertical collectivism influence switching cost perceptions in relationship marketing strategies internationally, highlighting the importance of cultural dimensions in designing effective marketing approaches for foreign operations [23]. The impact of Hofstede's cultural dimensions on trade is in Table 1.

Table 1. Literature on the Impact of Cultural Dimensions on Trade.

Culture Dimensions	Impact on Trade	Author	Year	Area
PDI	Positive	Waristi	2014	Indonesia's trade and other
ADV	Negative	Waristi	2014	ASEAN countries
	Positive	Ilieş & Zahid	2019	Poland, Lithuania, and Romania
MAS	NO	Waristi	2014	ASEAN countries
	Positive	Kristjánsdóttir et al.	2017	the United States and 19 countries in Europe
	Negative	Fevriera et al.	2021	Indonesia
UAI	Positive	Fevriera et al.	2021	Indonesia
	Negative	Novy & Taylor	2020	World
LTO	Positive	Fevriera et al.	2021	Indonesia
	NO	Kristjánsdóttir et al.	2017	the United States and 19 countries in Europe
IVR	NO	Fevriera et al.	2021	Indonesia

2.3 Economic Indicators and Gravity Model

Gravity Model. Financial openness and the gravity model have been examined in several types of research. Gullo and Montalbano contribute to the literature by using gravity equations to estimate illicit money flows and correlating these flows with compliance with international transparency standards [24]. Frost and Saiki explore the role of financial openness and capital inflows in currency crises using a gravity-based contagion index [25]. Using the gravity model, Olanrewaju, Bakar, and Aziz investigate the effect of regional integration agreements on trade among ECOWAS countries [26]. These studies provide insights into the relationship between financial openness and the gravity model, examining various aspects such as illicit money flows, commercial openness, currency crises, regional integration, and macroeconomic fluctuations.

Financial Openness and Gravity Model. Reflecting the diversity of terms and concepts, a wide array of economic openness measures has been developed, emphasising different facets of economic integration. Consequently, the definition and measurement of economic openness have varied significantly over the last three decades. This has led to a recognised lack of consensus on the most effective methods to measure economic openness, as noted by researchers like Squalli and Wilson (2011), Busse and Koeniger (2012), Huchet-Bourdon et al. (2017), and Egger et al. (2019). Prominent

among these indices are the KAOPEN index by Chinn and Ito (2006) and the Financial Openness Index (FOI) by Johnston and Tamirisa (1998) [27].

Several pieces of research have examined financial openness and the gravity model. Gullo and Montalbano contribute to the literature by using gravity equations to estimate illicit money flows and correlating these flows with compliance with international transparency standards [24]. Frost and Saiki explore the role of financial openness and capital inflows in currency crises using a gravity-based contagion index [25]. Using the gravity model, Olanrewaju, Bakar, and Aziz investigate the effect of regional integration agreements on trade among ECOWAS countries [26]. These studies provide insights into the relationship between financial openness and the gravity model, examining various aspects such as illicit money flows, commercial openness, currency crises, regional integration, and macroeconomic fluctuations. In our study, we focus on using the gravity model to analyze the impact of financial openness differences, Hofstede's cultural differences between China and six Asean countries on service trade flow.

GDP and Trade Relationships. GDP plays an important role in the gravity model of international trade. The gravity model describes bilateral trade flows by considering the trading nations' economic size and geographical separation (L. et al., 2010). While the gravity model has been widely used and has strong explanatory power, it has been recognised that it ignores potentially important determinants of economic growth (H., Boulhol. et al., 2010). However, recent research has shown that economic size is more important than distance in determining foreign direct investment (FDI) (Megi & Marku, 2014). A study on simulating GDP for international trade network data found that the estimated GDP values using a linear gravity transportation model generally agreed with the real values, except for China, where the estimated GDP was higher[1]. Therefore, GDP per capita is a significant factor in the gravity model and has implications for international trade and investment [28].

3 Theoretical Framework

3.1 Hofstede's Cultural Dimensions and Financial Openness

The theoretical framework of this study is designed to explore the dynamics between cultural dimensions, financial openness, and service trade between China and ASEAN countries. Utilizing Geert Hofstede's widely recognized cultural dimensions—Power Distance Index (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS), Uncertainty Avoidance Index (UAI), Long Term Orientation versus Short Term Normative Orientation (LTO), and Indulgence versus Restraint (IVR)—this model examines how these cultural factors, alongside the aspects of financial openness, influence bilateral service trade. This approach is visualized in Figure 1, which presents a comprehensive conceptual framework mapping the interactions of these variables.

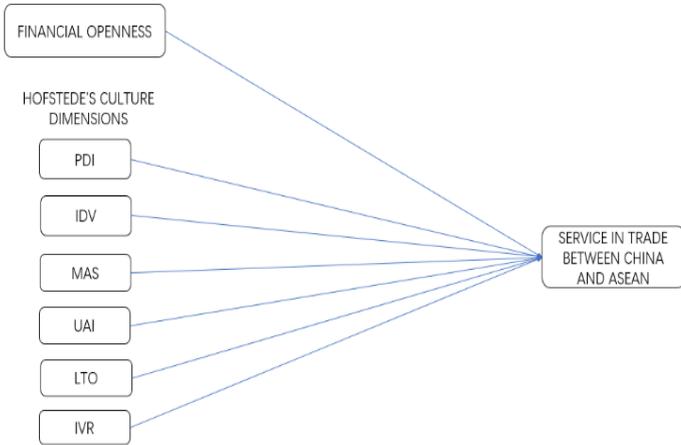


Fig. 1. Conceptual Framework.

3.2 Gravity Model of Trade

The Gravity Model of Trade, a fundamental equation in international economics, is employed to quantify the effects discussed in the conceptual framework. The model is articulated as the following equation (1):

$$Trade_{ij} = GDP_i \times GDP_j \times CULTURE_{ij} \times OPEN_{ij} \tag{1}$$

Where:

$Trade_{ij}$ represents the trade volume between countries i and j .

GDP_i and GDP_j are the economic outputs of countries i and j , respectively.

$CULTURE_{ij}$ quantifies the cultural distances between the countries, derived from Hofstede’s dimensions or other similar cultural metrics.

$OPEN_{ij}$ reflects the degree of financial openness between the countries, incorporating factors like capital account openness and market integration levels.

This model not only facilitates the estimation of trade flows based on economic and cultural proximity but also allows for the integration of financial openness as a moderating variable, thus providing a holistic view of how these elements collectively impact bilateral trade dynamics.

4 Methodology

4.1 Research Design

This study employs a quantitative research design to analyse the impact of Hofstede’s cultural dimensions and financial openness on bilateral trade in services between China and ASEAN countries. The study utilises panel data from 2005 to 2021 for six ASEAN

countries (Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam) along with China.

4.2 Data Collection

The data used in this study are obtained from various reliable sources. The cultural dimensions data are sourced from Hofstede's cultural dimensions database. Financial openness data are taken from the KAOPEN index developed by Chinn and Ito and the financial openness index (FOI) developed by Johnston and Tamirisa. GDP and trade-in services data are sourced from the World Development Indicators database. The variables used in this study are in Table 2.

Table 2. Summary of Variables Used in Gravity Model.

Dependent Variable	Trade in service(service_trade)		
Independent Variables	Hofstede's cultural dimensions (PDI_d, IDV_d, MAS_d, UAI_d, LTO_d, IVR_d)	Financial Openness (FO_d)	GDP (log_gdp, log_gdp1)
Panel Identifier	Country ID (new_country_id)		
Time Variable	Year		

4.3 Statistical Model

This study employs a mixed-effects model to analyze the impact of various economic and cultural factors on service trade. The dependent variable in the primary specification is the natural logarithm of service trade ($\ln_service_trade$). The model includes several independent variables:

log_gdp: The natural logarithm of GDP, representing the economic size of the countries involved.

log_gdp1: The natural logarithm of the partner country's GDP.

Financial Openness (FO_d): This variable measures the degree of financial openness and its potential influence on service trade.

PDI_d (Power Distance Index): Captures the extent to which less powerful members of institutions accept unequal distribution of power.

IDV_d (Individualism Index): Represents the degree of individualism versus collectivism in the society.

MAS_d (Masculinity Index): Reflects the preference for achievement, heroism, assertiveness, and material rewards for success.

UAI_d (Uncertainty Avoidance Index): Measures the society's tolerance for uncertainty and ambiguity.

LTO_d (Long-Term Orientation Index): Assesses the degree to which long-term commitments and respect for tradition are valued.

In the context of the mixed-effects model, the general form of the equation can be expressed as follows:

ln_service_trade_{it}

$$= \beta_0 + \beta_1 \cdot \log_gdpi_{it} + \beta_2 \cdot \log_gdpi_{1it} + \beta_3 \cdot FO_dit + \beta_4 \cdot PDI_dit + \beta_5 \cdot IDV_dit + \beta_6 \cdot MAS_d_{it} + \beta_7 \cdot UAI_d_{it} + \beta_8 \cdot LTO_d_{it} + ui + \epsilon_{it} \quad (2)$$

Where:

ln_service_trade is the natural logarithm of the service trade (dependent variable).

log_gdp is the natural logarithm of GDP for the country.

log_gdp1 is the natural logarithm of GDP for the partner country.

FO_d represents the difference in financial openness between the two countries.

PDI_d is the difference in Power Distance Index.

IDV_d is the difference in Individualism Index.

MAS_d is difference in the Masculinity Index.

UAI_d is difference in the Uncertainty Avoidance Index.

LTO_d is the difference in Long-Term Orientation Index.

u_i represents the random effects associated with group-level unobserved heterogeneity (e.g., differences between countries).

ε is the error term, capturing the individual-level random noise.

This equation incorporates both fixed effects (the coefficients associated with the independent variables) and random effects (captured by *ui*), making it suitable for data with hierarchical or panel structures. This model allows for an understanding of how economic and cultural factors interact to influence service trade across different regions.

5 Analysis

The mixed-effects model was employed to explore the impact of Hofstede's cultural dimension differences, GDP, and financial openness differences on the service trade. The analysis yielded several significant findings:

5.1 GDP Effects

log_gdp (GDP of Country A): The coefficient for **log_gdp** is 0.9087 with a standard error of 0.0629, which is highly significant ($p < 0.001$). This indicates a strong and positive association between the GDP of Country A and the volume of service trade, suggesting that higher economic output in Country A is linked to greater service trade activity.

log_gdp1 (GDP of Country B): The coefficient for **log_gdp1** is 0.0862 with a standard error of 0.0555; however, it is not statistically significant ($p = 0.120$). This suggests that the GDP of Country B has a lesser and non-significant impact on the service trade between the two nations.

Financial Openness Differences (FO_d): The coefficient for **FO_d** is 0.1131 with a standard error of 0.1091, but this is not significant ($p = 0.300$). This result implies that differences in financial openness between the two countries do not have a clear impact on service trade volumes.

5.2 Cultural Dimension Differences

The coefficients for cultural dimensions such as Power Distance (PDI_d), Individualism (IDV_d), Masculinity (MAS_d), Uncertainty Avoidance (UAI_d), and Long-term Orientation (LTO_d) are all statistically significant. This underscores the substantial influence of cultural differences on service trade. For example, a negative coefficient for PDI_d (-0.2421, $p < 0.001$) indicates that greater differences in power distance are associated with reduced service trade volumes, highlighting how cultural alignment or disparity can significantly affect economic interactions.

5.3 Random Effects

The random-effects parameter for the country (random intercepts) is nearly zero, indicating negligible variation between the countries in their baseline levels of service trade when controlling for other factors. This suggests that the fixed effects model may adequately capture the impact of the variables studied without the need for a complex random effects structure.

5.4 Model Fit and Diagnostics

The Wald chi-square statistic (4807.60 with 8 degrees of freedom) confirms that the model is highly significant. The log likelihood of 68.584771 indicates a good fit of the model to the data. The LR test comparing this mixed-effects model against a simple linear regression model showed no significant improvement, suggesting that the inclusion of random effects did not enhance the model fit beyond a linear specification.

These findings reveal that the economic output of the countries involved and their cultural differences play a crucial role in influencing service trade, whereas financial openness appears to have a limited impact. This highlights the importance of considering both economic and cultural factors in trade policy and economic strategy formulations. Additionally, the minimal random effects suggest that variations between countries are consistently explained by the fixed effects included in the model.

This analysis in Table 3 contributes to a deeper understanding of how cultural and economic factors intersect to shape trade dynamics in the services sector, providing valuable insights for policymakers and business strategists aiming to optimize international service trade engagements.

Table 3. Mixed-Effects Model Results.

VARIABLES	(1) ln service trade	(2) lns1 1 1	(3) lnsig e
log_gdp	0.909*** (0.0629)		
log_gdp1	0.0862 (0.0555)		
FO d	0.113		

	(0.109)		
PDI_d	-0.242***		
	(0.0209)		
IDV_d	0.470***		
	(0.0454)		
MAS_d	0.349***		
	(0.0303)		
UAI_d	0.245***		
	(0.0243)		
LTO_d	-0.121***		
	(0.0172)		
Constant	8.413***	-28.75***	-2.091***
	(1.059)	(9.222)	(0.0700)
Observations	102	102	102
Number of groups	6	6	6

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

6 Discussion

6.1 Interpretation of Results

The mixed-effects model analysis provides compelling evidence of the significant role that cultural differences and economic factors play in influencing service trade between countries. The positive and significant coefficient for Country A's GDP (\log_gdp) underscores the robust impact of economic strength on service trade volumes, aligning with economic theories that posit a positive relationship between national income and trade activities. Conversely, the non-significant impact of Country B's GDP (\log_gdp1) suggests that Country A's economic status is a more critical driver in this trading relationship, which may reflect asymmetrical economic dependencies or varying levels of market attractiveness.

The insignificance of the financial openness difference (FO_d) in predicting service trade volumes is an intriguing finding. This could indicate that while financial markets may be liberalized, other barriers—such as regulatory frameworks, cultural differences, or infrastructural issues—might still impede the actual flow of service trade. This aspect could be crucial for policymakers focusing exclusively on financial openness as a lever for boosting trade.

Cultural differences, particularly in Power Distance (PDI_d), Individualism (IDV_d), and Masculinity (MAS_d), showed strong associations with trade volumes, which is consistent with Hofstede's framework. These results emphasize the need for multinational corporations and policymakers to consider cultural compatibility or strategies for cultural adaptation when fostering bilateral service trade relationships.

6.2 Theoretical Implications

This study contributes to the extant literature by highlighting how both economic factors and cultural dimensions intricately influence service trade. It supports the hypothesis that economic strength and cultural practices are not merely background conditions but active drivers of trade dynamics. The findings extend the application of Hofstede's cultural dimensions in international trade studies, providing an understanding of how specific cultural traits can either facilitate or hinder economic exchanges.

6.3 Practical Applications

For practitioners and policymakers, these insights suggest that enhancing service trade requires more than just economic incentives or regulatory alignments. There is a clear indication that cultural understanding and intercultural competence are crucial for negotiating and sustaining trade agreements. Training programs on cultural sensitivity and targeted marketing strategies that consider cultural nuances could be developed to maximize trade potential.

7 Limitations and Recommendations

The study relies on available data from international databases, which may have limitations regarding coverage and accuracy. Future research could benefit from more comprehensive and detailed data to enhance the robustness of the findings. While the mixed effects model provides a robust framework for analysis, future studies could explore alternative modelling approaches to validate the findings further.

Expanding the scope of the research to include more countries and different periods could provide a more comprehensive understanding of the relationships studied. Additionally, incorporating more granular data on service trade sectors and specific financial policies could yield deeper insights into the dynamics of trade in services between China and ASEAN countries.

8 Conclusion

This study explored the impact of Hofstede's cultural dimensions and financial openness on bilateral service trade between China and ASEAN countries. Using a mixed effects model, the research examined how cultural differences and monetary policies influence service trade volumes, focusing on understanding the mediating role of trade openness.

The findings revealed that certain cultural dimensions, such as power distance and long-term orientation, significantly affect service trade. Financial openness was also crucial, although its impact varied across different contexts. The results suggest that while financial openness can enhance trade in services, its effectiveness is influenced by the cultural context of the trading countries.

This research contributes to a deeper understanding of the interplay between cultural factors, financial policies, and service trade. It provides valuable insights for policy-makers aiming to enhance regional trade competitiveness and economic cooperation. Future studies could further explore these dynamics by incorporating more diverse datasets and considering other potential mediating variables.

References

1. N. D. Kristensen, "DOES CULTURE MATTER IN TRADE?-A GRAVITY APPROACH," MS thesis, Dept. Economics and Business Economics, Aarhus Univ., Aarhus, Denmark, 2017.
2. S. Fevriera, N. Maretania, and V. N. Siwi, "Hofstede's cultural dimensions in the gravity model using mixed-effect model," *J. Ekon. Dan Bisnis*, vol. 24, no. 2, pp. 306–328, 2021.
3. A. Peter, "Bilateral trade, openness, and asset holdings," *Open Econ. Rev.*, vol. 23, pp. 713–740, 2012.
4. Z. Aman, B. Granville, S. K. Mallick, and I. Nemlioglu, "Does greater financial openness promote external competitiveness in emerging markets? The role of institutional quality," *Int. J. Finance Econ.*, p. ijfe.2695, Sep. 2022, doi: 10.1002/ijfe.2695.
5. N. Tan, W. Wang, J. Yang, and L. Chang, "Financial Competitiveness, Financial Openness and Bilateral Foreign Direct Investment," *Emerg. Mark. Finance Trade*, vol. 55, no. 14, pp. 3349–3369, Nov. 2019, doi: 10.1080/1540496X.2019.1590194.
6. G. Gokmen, "Clash of civilizations and the impact of cultural differences on trade," *J. Dev. Econ.*, vol. 127, pp. 449–458, 2017.
7. G. J. Hofstede, C. M. Jonker, and T. Verwaart, "Modeling power distance in trade," in *Multi-Agent-Based Simulation IX: International Workshop, MABS 2008, Estoril, Portugal, May 12-13, 2008, Revised Selected Papers 9*, Springer, 2009, pp. 1–16.
8. A. Thakur, "Cultural Impact on Global Trade," in *Handbook of Research on the Empirical Aspects of Strategic Trade Negotiations and Management*, IGI Global, 2021, pp. 196–210.
9. S. Chen and L. Li, "Research on the Development Prospect of 'China-Asean' Service Trade-Analysis based on the manufacturing level of service industry," *Adv. Econ. Manag. Res.*, vol. 2, no. 1, p. 169, Sep. 2022, doi: 10.56028/aemr.2.1.169.
10. M.-J. Kung, Y.-Z. Li, and W.-P. Tai, "The Political Economy Analysis of China–ASEAN in Service Industrial Cooperation and Open Policy," *Chin. Econ.*, vol. 49, no. 6, pp. 414–428, Nov. 2016, doi: 10.1080/10971475.2016.1207979.
11. Bowles, P., & White, G. (2019). *The political economy of China's financial reforms: finance in late development*. Routledge.
12. K. H. Yeganeh, "An Analysis of the Effects of Cultural, Religious, and Linguistic Differences on International Trade," *J. East-West Bus.*, vol. 30, no. 1, pp. 66–91, Jan. 2024, doi: 10.1080/10669868.2023.2258873.
13. Z. Sun, Y. Li, and P. P. Wang, "Cultural Differences and Bilateral Trade: An Empirical Study Based on Industrial Data from OECD and BRIICS Countries," *Emerg. Mark. Finance Trade*, vol. 59, no. 9, pp. 2787–2801, Jul. 2023, doi: 10.1080/1540496X.2023.2195536.
14. N. T. Long, N. T. Gam, V. H. Van, and B. H. Ngoc, "The Role of Cultural and Institutional Distances in International Trade," *Emerg. Sci. J.*, vol. 7, no. 2, pp. 507–519, Feb. 2023, doi: 10.28991/ESJ-2023-07-02-015.
15. J. K. Fanjanirina, "The Effect of Cultural Differences on the Implementation of the African Continental Free Trade Area," *Open J. Bus. Manag.*, vol. 12, no. 01, pp. 51–78, 2024, doi: 10.4236/ojbm.2024.121005.

16. I. P. M. J. S. Putra and R. P. Sihombing, "The potential of corruption based on Hofstede cultural dimensions and institutional quality: an international evidence," *J. Financ. Crime*, vol. 31, no. 4, pp. 823–836, Jun. 2024, doi: 10.1108/JFC-02-2023-0039.
17. G. Cho, T. Im, and Y. Kim, "An Analysis of the Effect of Trading Countries' Cultural Characteristics on Food Trade," *Korean J. Agric. Econ.*, vol. 64, no. 1, pp. 45–65, 2023.
18. F. V. Waristi, "Religion and cultural factors in bilateral trade between Indonesia and ASEAN member countries," *Kaji. Ekon. Dan Keuang.*, vol. 18, no. 2, pp. 85–98, 2014.
19. A. Iliş and R. A. Zahid, "The Impact of Europe's Individualism/Collectivism on the International Trade," *Eur. J. Mark. Econ.*, vol. 2, no. 1, pp. 6–20, 2019.
20. Kristjánsdóttir, H., Guðlaugsson, Þ. Ö., Guðmundsdóttir, S., & Aðalsteinsson, G. D. (2017). Hofstede national culture and international trade. *Applied Economics*, 49(57), 5792–5801. <https://doi.org/10.1080/00036846.2017.1343446>
21. Fevriera, S., Marettania, N., & Siwi, V. N. (2021). Hofstede's cultural dimensions in the gravity model using the mixed-effect model. *Jurnal Ekonomi Dan Bisnis*, 24(2), 306–328.
22. D. Novy and A. M. Taylor, "Trade and uncertainty," *Rev. Econ. Stat.*, vol. 102, no. 4, pp. 749–765, 2020.
23. M. Blut, S. E. Beatty, and W. M. Northington, "Cultural personal values and switching costs perceptions: Beyond Hofstede," *J. Bus. Res.*, vol. 150, pp. 339–353, 2022.
24. V. Gullo and P. Montalbano, "Financial transparency and anomalous portfolio investment flows: A gravity analysis," *J. Int. Money Finance*, vol. 128, p. 102704, Nov. 2022, doi: 10.1016/j.jimonfin.2022.102704.
25. Frost, J., & Saiki, A. (2014). Early warning for currency crises: what is the role of financial openness?. *Review of international economics*, 22(4), 722-743.
26. A. L. Olanrewaju, N. A. A. Bakar, and M. I. A. Aziz, "Openness and ECOWAS Regional Trade: A Panel Cointegration Analysis Using a Gravity Model," *SSRN Electron. J.*, 2017, doi: 10.2139/ssrn.2931638.
27. M. D. Chinn and H. Ito, "What matters for financial development? Capital controls, institutions, and interactions," *J. Dev. Econ.*, vol. 81, no. 1, pp. 163–192, Oct. 2006, doi: 10.1016/j.jdeveco.2005.05.010.
28. NEE, L. L. (2015). Gravity Theory-The Determinants of IMS-GT on Economy Growth. Universiti Malaysia Sarawak.

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