



THE EFFECTS OF THE ASEAN-CHINA FREE TRADE AREA (ACFTA) ON TRADE: CREATION AND DIVERSION IN THE CREATIVE ECONOMY SUBSECTORS

Miguel Angel Esquivias^{1*}, Audrey Friska Cesilia¹, Siti Hafsa Zulkarnain²,
Aluisius Hery Praton³

Received 13.01.2026.

| Sent to review 30.01.2026. | Accepted 28.05.2026.

Original article



¹ Department of Economics, Faculty of Economics and Business, Universitas Airlangga, Surabaya-60286, Indonesia

² College of Built Environment; Universiti Teknologi MARA, Shah Alam-40450, Selangor, Malaysia;

³ Universitas Surabaya, Surabaya-60293, Indonesia

*Corresponding Author:
Miguel Angel Esquivias

Email:
miguel@feb.unair.ac.id

JEL Classification:
F15, F14, Z11

Doi: 10.2478/eoik-2026-0034

UDK: 339.923:338.124.4(594)

ABSTRACT

This study investigates the effects of trade creation and trade diversion on creative economy subsectors following the implementation of the ASEAN-China Free Trade Area (ACFTA). To do so, it employs a gravity model that incorporates common language, religious composition, and cultural identity similarity as explanatory variables. The analysis covers 11 ACFTA member countries and 18 non-member trading partners over the period 2002–2020. The empirical model is estimated using the Poisson Pseudo-Maximum Likelihood (PPML) method to address zero trade flows and heteroscedasticity. The results indicate that the implementation of ACFTA has generated trade diversion across all creative economy subsectors. They also show that cultural factors significantly influence trade in creative economy goods. Greater similarity in cultural identity and language is associated with higher bilateral trade volumes, whereas the opposite relationship is observed for religious similarity. These findings suggest that ACFTA provisions should be recalibrated to reduce non-tariff frictions and strengthen critical sectoral areas, including intellectual property enforcement, e-commerce, services and talent mobility, so that the benefits of integration can be distributed more evenly among member countries. The study contributes to the literature by providing sector-specific evidence on both intra-bloc and extra-bloc effects, while also integrating measures of intangible distance into the evaluation of free trade agreements.

Keywords: Culture, ACFTA, Trade Creation, Trade Diversion, Creative Economy, Cultural Distance, Free Trade

1. INTRODUCTION

Trade liberalization has accelerated globalization by reducing barriers to cross-border exchange. In this process, free trade agreements (FTAs) have played a central role in promoting economic integration through the removal of tariff and non-tariff barriers, thereby stimulating trade in goods, services, and investment (Nawrot, 2023) and supporting rapid economic development worldwide. The ASEAN–China Free Trade Area (ACFTA) represents one such agreement (L. Wang & Chen, 2025). Initiated through a framework agreement in November 2002 and fully implemented in January 2010, ACFTA was designed to improve access to a combined market of approximately 2.1 billion people, representing nearly one-quarter of the

world's population, with an estimated market size of US\$22–23 trillion. While the agreement has expanded ASEAN countries' access to the Chinese market, it has also increased China's economic influence within ASEAN markets (Tang et al. 2024).

ACFTA affects a wide range of sectors by altering trade costs, market access, competition, and regional value chains. Existing research on ACFTA-related regions has examined agricultural trade (Sun & Li, 2018), industrial production (Handoyo et al., 2021), and service industries (Fukunaga & Ishido, 2013), but has not yet addressed subsectors of the creative economy. This omission is notable, given that the creative economy is among the fastest-growing sectors globally, driven increasingly by digital platforms and cross-border distribution. It accounts for 3.1% of global gross domestic product (GDP) and 6.2% of employment, generating nearly 50 million jobs worldwide (UN Trade and Development [UNCTAD], 2022). The sector has also demonstrated considerable resilience during the post-pandemic recovery and in the face of trade sanctions (Doan & Tran, 2023). For these reasons, the creative economy makes an important contribution to sustainable development, particularly in relation to SDG 8 (decent work and economic growth), SDG 9 (industry, innovation, and infrastructure), and SDG 12 (responsible consumption and production).

Because creative economy goods and services are rooted in human creativity, their value derives primarily from ideas, innovation, and the application of technology rather than from raw materials (Howkins, 2001). As a result, intellectual property, cultural capital, and branding are central to value creation in this sector (Fazio, 2021). This logic applies across the seven creative economy subsectors classified by UNCTAD: arts and crafts, audiovisuals, design, new media, performing arts, publishing, and visual arts.

The expansion of creative goods exports in China and ASEAN countries raises several important questions. Does ACFTA enable member countries to increase their market shares both within and outside the bloc? Or does it intensify intra-regional competition in ways that reduce export performance? In the ACFTA context, tariff reductions and clearer rules of origin may enhance market access for creative goods, while non-tariff measures and intellectual property enforcement remain key factors shaping trade outcomes. The concepts of trade creation and trade diversion provide a useful framework for evaluating FTA effectiveness. Introduced by Viner (1950), trade creation refers to new trade among member countries arising from lower internal trade barriers, whereas trade diversion occurs when trade shifts from more efficient non-members to less efficient members, potentially reducing welfare..

Previous studies have examined the trade effects of ASEAN-related FTAs, but several important gaps remain. First, trade creation in creative goods has not yet been systematically explored. Existing studies have focused mainly on agriculture (Jagdambe & Kannan, 2020, Sun & Li, 2018), manufacturing goods (G. E. Lee & Park, 2021), manufacturing subsectors classified by skill and technology intensity (Handoyo et al., 2021; Hoang et al., 2020), or aggregate exports (Nawrot, 2023; Ramaswamy et al., 2021; Zhai, 2023).

Second, empirical findings on the effects of FTAs on trade flows remain mixed. Although many studies report evidence of trade creation (G. E. Lee & Park, 2021; L. Wang & Chen, 2025; Zhai, 2023), others find insignificant effects, as in the case of trade between Central China and ASEAN (Bhowmik et al., 2021; Kalev and Lee, 2025). Some studies also report adverse intra-bloc trade effects following FTA implementation, including in Taiwan–ASEAN trade (Hoang et al., 2020) and South Asia (Jagdambe & Kannan, 2020; Khurana & Nauriyal, 2017; Ramaswamy et al., 2021).

Third, prior studies differ substantially in how they operationalize FTA effects on trade flows. Many employ a single post-implementation dummy variable to capture the average effect of the agreement (Nawrot, 2023; Ramaswamy et al., 2021; Zhai, 2023). Others use directional

dummy variables that distinguish trade within the bloc, trade from non-members into the bloc, and trade from the bloc to non-members (Handoyo et al., 2021; Yang & Martinez-Zarzoso, 2014). This latter approach allows a clearer distinction between trade creation and potential trade diversion. Estimation strategies also vary, ranging from Ordinary Least Squares (OLS) gravity models to Poisson Pseudo-Maximum Likelihood (PPML) estimators with exporter-year, importer-year, and pair fixed effects to account for zero trade flows and multilateral resistance. Because these modelling choices address different empirical margins and identification challenges, estimated effect sizes are not directly comparable, contributing to the mixed evidence in the literature.

Another important gap concerns the role of cultural differences in shaping trade flows. Among studies using indicators of cultural distance, such as Hofstede-based measures or the index developed by Hofstede or Kogut and Singh's (1988) some find that cultural distance increases international trade (L.A. Wang & Chen, 2025), others report the opposite effect (Hoang et al., 2020; Y. Wang et al., 2020), and some find no statistically significant relationship, as in the case of music trade in Asia (Takara, 2018). Disdier et al. (2010) argue that bilateral demand for cultural exports tends to increase when cultural preferences are more similar.

The demand and supply characteristics of creative goods differ substantially from those of relatively homogeneous products. Creative goods are highly differentiated by design, narrative, brand, and cultural meaning, and they embed intangible assets such as originality, intellectual property, artistic skill, and tacit knowledge that are difficult to codify or replicate. These features generate variety-seeking preferences and authenticity premiums, which tend to make demand less price-elastic than for standard manufactured goods. Preferences are shaped not only by prices, but also by language, diaspora ties, social networks, religion, ethnicity, and broader value systems. In addition, creative goods face greater uncertainty in demand, stronger differentiation pressures, coordination and agglomeration effects, and more limited scalability or replicability (Fazio, 2021). In this context, incorporating cultural factors (Y. Wang et al., 2020), religious differences (Gokmen, 2017), common language (Melitz & Toubal, 2014), and geographic distance can improve understanding of how intangible differences act as forms of uncertainty and cost in international trade.

Against this background, this study examines whether ACFTA has generated trade creation or trade diversion in the creative economy among member countries, with particular attention to the roles of language, cultural similarity, and shared religious beliefs. It applies the gravity framework developed by Anderson and Van Wincoop (2003), incorporating time and country effects following Baier and Bergstrand (2007) and Urata and Okabe (2014). The model is estimated using the PPML method, consistent with Yang and Martinez-Zarzoso (2014), Timsina and Culas (2019), and Cevik et al. (2025). The analysis covers China, ASEAN member states, and 18 additional key trading partners over the period 2002–2020. The seven creative goods subsectors examined are arts and crafts, audiovisuals, design, new media, performing arts, publishing, and visual arts.

This study makes several contributions to the literature on FTAs, particularly in the ASEAN–China context and about implications for non-member countries. First, it provides new evidence on the trade effects of ACFTA in the creative economy, a sector that has received limited attention in the FTA literature. Second, it contributes to the literature on creative goods trade by incorporating cultural distance, religion, and language as measures of intangible distance. Previous studies on creative goods exports that considered cultural distance, such as Takara (2018), Zhou and Zhou (2022), and Dong and Truong (2020), did not examine the role of FTAs. Those studies were also limited either to specific countries, such as Vietnam or selected East Asian economies, or to creative products, such as music. Other studies, including Cevik

et al. (2025), analyze creative goods trade in Europe but do not account for cultural distance. In contrast, the present study simultaneously considers FTA effects, multiple countries, several creative subsectors, and alternative dimensions of intangible distance, thereby offering a broader and more integrated perspective on the determinants of trade in creative goods.

2. LITERATURE REVIEW

The gravity model, first introduced by [Tinbergen \(1962\)](#), is widely used to estimate bilateral trade flows under free trade agreements by relating trade volumes to countries' economic size, typically measured by GDP, and the distance between them. In doing so, the model captures the interaction between geographic barriers and demand conditions, predicting that countries with similar demand structures tend to trade more intensively once geographic factors are controlled for. [Anderson \(1979\)](#) later provided the first rigorous theoretical foundation for the model within a Constant Elasticity of Substitution (CES) framework. This foundation was further strengthened by [Anderson and Van Wincoop \(2003\)](#) who developed the structural gravity model and incorporated border effects and multilateral resistance, thereby improving the treatment of trade-cost endogeneity.

Distance remains one of the most important determinants of bilateral trade. Greater geographic distance generally reduces trade volumes because it increases transportation costs and other related barriers ([Anderson & Van Wincoop, 2003](#); [Helpman et al., 2008](#)). [Berthelon and Freund \(2008\)](#) show that the elasticity of trade with respect to distance has increased across industrial sectors, implying that distance has become an even more significant obstacle to trade. This conclusion is echoed in later studies ([Cevik et al., 2025](#); [Khurana & Nauriyal, 2017](#); [Singh, 2021](#); [Timsina & Culas, 2020](#)). By contrast, [Borchert and Yotov \(2017\)](#) argue that globalization has weakened the adverse effect of distance on international trade. Beyond distance itself, bilateral trade costs are also shaped by other geographic and structural characteristics, including landlocked status, common borders, and shared language ([Disdier et al., 2010](#)). Importantly, the trade effect of distance varies across product types: differentiated goods, whose value depends on branding, variety, and uniqueness, are generally less constrained by distance, whereas homogeneous goods tend to face stronger distance-related penalties because of transport and handling costs.

Trade flows are also strongly influenced by economic size. A large body of literature shows that GDP growth in both exporting and importing countries has a positive effect on bilateral trade volumes ([Bhowmik et al., 2021](#); [Hoang et al., 2020](#); [Zhai, 2023](#)). Higher GDP in the exporting country supports greater export capacity through economies of scale, while higher GDP in the importing country reflects larger market demand and thus stronger import potential ([Anderson & Van Wincoop, 2003](#); [Taguchi & Rubasinghe, 2019](#); [Timsina & Culas, 2020](#)). Population size is likewise an important determinant of trade flows ([G. E. Lee & Park, 2021](#); [Timsina & Culas, 2019](#); [Yang & Martinez-Zarzoso, 2014](#)). However, evidence from ASEAN-China trade ([Wang & Chen, 2025](#)) and broader global samples ([Costa et al., 2023](#)) suggests that larger populations may sometimes reduce bilateral trade, partly because they are associated with stronger domestic production capacity.

Language also plays a significant role in shaping trade patterns. [Melitz and Toubal \(2014\)](#) advanced the theoretical understanding of how common language and translation capacity reduce trade costs by improving communication efficiency, negotiation accuracy, trust, and the sustainability of commercial relationships. Similarly, [Selmier and Oh \(2013\)](#) find that sharing a primary language significantly lowers transaction costs and increases both trade and foreign direct investment. This finding is consistent with several studies in ASEAN-related contexts ([G. E. Lee & Park, 2021](#); [Ramaswamy et al., 2021](#); [L. Wang & Chen, 2025](#)). More broadly, a com-

mon language facilitates effective communication and reduces uncertainty in cross-border trade (Khurana & Nauriyal, 2017; G. E. Lee & Park, 2021; Melitz & Toubal, 2014; Singh, 2021).

In addition to these standard variables, the gravity model has been extended to include cultural factors that may intensify or reduce trade frictions. Takara (2018) using Huntington's Huntington (1993) civilization-based classification, finds that cultural similarity has a positive effect on bilateral trade, particularly in the creative economy. Huntington's framework classifies countries into 11 cultural groups, including Western, Sinic, Hindu, Islamic, Orthodox, Latin American, African, Buddhist, Ethiopian, Haitian, and Japanese. According to Takara (2018) countries located within the same cultural sphere are more likely to trade with one another because they share similar preferences and behavioural patterns, a conclusion also supported by Hoang et al. (2020). By contrast, other studies report that cultural differences inhibit trade flows (Felbermayr & Toubal, 2010; Guiso et al., 2009; Long et al., 2023; Tadesse & White, 2010).

Religion, although not a conventional gravity variable, may also shape bilateral trade. Shared religious beliefs can foster trust, reduce perceived risk, and lower transaction costs in international exchange (Costa et al., 2023; Lewer & Van Den Berg, 2007). Common religion may also reflect shared norms, networks, and institutional preferences that facilitate trade relations (Gokmen, 2017; L. Wang & Chen, 2025). In this sense, religious similarity can enhance mutual affinity and strengthen trust between trading partners (Marvasti & Canterbury, 2005, Melitz & Toubal, 2014).

Within this broader framework, the concepts of trade creation and trade diversion remain central to assessing the effectiveness of FTAs. Viner (1950) defines trade creation as the expansion of trade among member countries after the implementation of an FTA, when goods imported from partner countries become cheaper than domestic alternatives, thereby improving welfare among members. Lower trade barriers, reduced uncertainty, and deeper economic cooperation all contribute to this process (Cevik et al., 2025). Trade diversion, by contrast, occurs when the agreement shifts imports away from more efficient non-member suppliers toward less efficient member countries (Singh, 2021; Szalanczi & Trinh, 2017). These concepts have been widely used to evaluate FTAs in different regional settings (Alhassan & Payaslioglu, 2024; Dai et al., 2014; Khurana & Nauriyal, 2017; Pfaermayr, 2018; Yang & Martinez-Zarzoso, 2014; Zhai, 2023). Although many studies report predominantly trade-creating effects that improve member-country welfare, others find evidence of trade diversion for specific products or partners, such as Taiwan–ASEAN trade in Hoang et al. (2020); and South Asia in Jagdambe and Kanan (2020), Khurana and Nauriyal (2017), and Ramaswamy et al. (2021).

The mixed findings in the literature point to the need for more disaggregated analyses that account for differences across trade agreements, product categories, and explanatory variables. Such an approach is especially relevant for sectors characterized by lower price elasticity and stronger dependence on intangible attributes. Creative goods provide a particularly suitable case in this regard. Their demand is shaped less by conventional cost factors and more by creativity, ideas, skills, innovation, branding, and uniqueness. At the same time, China has emerged as a major force in the expansion of this sector at both regional and global levels. Yet previous studies in Asia have often overlooked the role of cultural, religious, and linguistic differences in explaining trade in creative goods. Addressing these factors can therefore offer a more nuanced understanding of trade creation and diversion in sectors where intangible value plays a central role.

3. EMPIRICAL ANALYSIS

3.1 DATA

This study uses panel data from 2002 to 2020 covering the 10 member countries of the ACFTA: China, Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. The study also includes 18 main trading partners of ASEAN countries: Australia, Canada, Germany, Hong Kong, India, Japan, South Korea, Russia, the United Kingdom, the United States, France, Italy, the Netherlands, New Zealand, Saudi Arabia, South Africa, Switzerland, and the United Arab Emirates. Data sources are detailed in Table 1.

Table 1. Definition of Variables

Variable	Definition	Source
Export of creative goods (Y)	Bilateral export value from country i to partner j in year t (US\$), disaggregated into seven creative-goods subcategories: Art and craft, Audiovisual, Design, New media, Performing arts, Publishing, and Visual arts	UNCTAD
GDP	The total value added of goods and services produced by all production sector units during a year (in US\$)	World Bank
Population (Pop)	The total population of the country in a year (in individuals)	World Bank
The distance between countries (Dist)	Geographic distance between the capitals of the exporting and importing countries (in kilometers)	Centre d'Etudes Prospectives et d'Informations Internationales
Language (Lang)	The use of national language (a dummy variable, valued at 1 when the exporting and importing countries share the same national language, and zero otherwise)	Centre d'Etudes Prospectives et d'Informations Internationales
Culture (Cult)	Classification of cultural identity by Huntington (1996) (a dummy variable, valued at 1 when the exporting and importing countries belong to the same cultural identity group as classified by Huntington, and zero otherwise)	The Clash of Civilizations by Huntington (1996)
Common Religion (Comreg)	Religious similarity between exporter and importer based on shares of the Islamic, Protestant, and Catholic religions. Index ranging from 0 to 1; the closer it is to 1, the more similar the composition between the exporting and importing countries.	Centre d'Etudes Prospectives et d'Informations Internationales

Source: Author's elaboration

3.2. MODEL SPECIFICATION

This study employs the gravity model to analyze bilateral trade flows. In its original form, the model proposed by [Tinbergen \(1962\)](#) explains trade as a function of economic size and geographic distance. Later developments introduced multilateral resistance terms to account for trade frictions not only between bilateral partners but also with third countries, thereby improving the theoretical consistency of the model ([Anderson, 1979](#); [Anderson & Van Wincoop, 2003](#)). Recent applications of the structural gravity framework incorporate time-varying exporter-year and importer-year effects to control for multilateral resistance ([Handoyo et al., 2021](#); [Hoang et al., 2020](#); [Yang & Martinez-Zarzoso, 2014](#)). To further address potential endogeneity bias, this study also includes country-pair fixed effects, following [Baier and Berg-](#)

strand (2007).

The general specification applied to the seven creative subsectors is as follows:

$$Y_{ijt} = \alpha_0 + \beta_1 \ln GDP_{it} + \beta_2 \ln GDP_{jt} + \beta_3 \ln Pop_{it} + \beta_4 \ln Pop_{jt} + \beta_5 Dist_{ij} + \beta_6 Lang_{ij} + \beta_7 Cult_{ij} + \beta_8 Comreg_{ij} + \phi_1 FTA_1_{ijt} + \phi_2 FTA_2_{ijt} + \phi_3 FTA_3_{ijt} + \tau_{ijt} + u_{ijt} \quad (1)$$

Y_{ijt} represents bilateral exports from exporter i to importer j in year t , with i and j drawn from the same group of 28 countries. GDP_{it} is the GDP of country i in year t , and GDP_{jt} is the GDP of country j in year t . Pop_{it} and Pop_{jt} are the populations of countries i and j in year t . $Dist_{ij}$ represents the geographic distance between exporter i and importer j . $Lang_{ij}$ is a dummy variable equal to 1 if the exporter and importer share the same language, and 0 otherwise. $Cult_{ij}$ is a dummy variable equal to 1 if the exporter and importer belong to the same cultural group as defined by Huntington (1996), and 0 otherwise. $Comreg_{ij}$ is an index of similarity in religious composition between countries i and j . FTA_1_{ijt} is a dummy variable that equals 1 if countries i and j are members of an FTA in year t . FTA_2_{ijt} equals 1 if country i is a member of an FTA while country j is not in year t . FTA_3_{ijt} is a dummy variable that equals 1 if country i is not an FTA member while country j is a member in year t . τ is a vector accounting for country-pair fixed effects (country i j), while γ_{it} and δ_{jt} are exporter and importer time varying effects, applied to account for omitted variable bias and multilateral resistance (Anderson & Van Wincoop, 2003).

The model is estimated using the Poisson Pseudo-Maximum Likelihood (PPML) estimator proposed by Silva and Tenreyro (2006). This approach incorporates both individual and time fixed effects, thereby controlling for unobserved heterogeneity across panel units and over time. A key advantage of PPML is its ability to handle zero trade flows, a common feature of bilateral trade data that is often inadequately addressed in conventional panel regression models. Alternative estimation methods, such as the Fixed Effects Model (FEM), Random Effects Model (REM), and Ordinary Least Squares (OLS), are not employed because the presence of zero values may bias the estimation results (Hoang et al., 2020). In addition, zero-valued observations create difficulties for logarithmic transformation and may violate core assumptions underlying OLS estimation.

Trade creation and diversion are quantified using coefficients derived from the regression results (ϕ_1, ϕ_2, ϕ_3). The net trade creation (NTC) includes three components: ϕ_1 (for FTA_1) captures trade within member countries, ϕ_2 (for FTA_2) captures trade from member to non-member countries, and ϕ_3 (for FTA_3) captures trade from non-member to member countries. Each component is analyzed to show whether trade flows lead to intra-trade creation (if $\phi_1 > 0$) or trade diversion (if $\phi_1 < 0$), export diversion (if $\phi_2 < 0$) or export expansion (if $\phi_2 > 0$), and import expansion (if $\phi_3 < 0$) or import diversion (if $\phi_3 > 0$). The overall NTC for each creative goods subsector is computed by adding significant coefficients (ϕ_1, ϕ_2, ϕ_3), expressed as a percentage (%), using the following formula (Yang & Martinez-Zarzoso, 2014):

$$NTC = (\exp (net\ effect) - 1) \times 100 \quad (2)$$

4. RESULTS AND DISCUSSION

4.1. MAIN RESULTS

The estimation results are reported using country-pair fixed effects and country-specific time-varying effects to control for unobserved factors affecting bilateral trade flows and multilateral resistance, following Baier and Bergstrand (2007). The regression estimates are presented in Table 2. The models yield relatively high explanatory power. In particular, the coefficient of determination for the visual arts and performing arts models is 0.81, indicating that the inde-

pendent variables explain 81% of the variation in the dependent variable, while the remaining 19% is attributable to factors not captured by the model.

The GDP of both exporters and importers has a positive and statistically significant effect across all seven creative subsectors. This suggests that exporters' production capacity (GDP_{it}) and importers' purchasing power (GDP_{jt}) jointly stimulate trade in creative goods. The effects of exporter population (POP_{it}) are mixed. For arts and crafts, design, new media, publishing, and visual arts, exporter population has a positive effect on exports, which is consistent with the idea that larger populations provide broader talent pools and greater product variety. By contrast, exporter population has a negative effect in the audiovisual subsector, possibly because larger domestic markets encourage home consumption and language-specific content, thereby reducing the share of output exported. On the demand side, importer population (POP_{jt}) exerts a negative effect in design, new media, and performing arts, which may reflect import substitution by local creators and platform-scale effects in larger markets. In contrast, for audiovisual goods, importer population is positive and significant, consistent with market-scale effects.

Geographic distance (DIS_{ij}) negatively affects trade flows in audiovisual, new media, and publishing, as predicted by trade theory. However, the coefficients for arts and crafts, design, performing arts, and visual arts are not statistically significant. This likely reflects the differentiated nature of these products or services, the role of digital delivery, and niche demand from distant high-income markets. Such products can reach geographically remote markets more easily because digital trade reduces delivery barriers and online engagement broadens access (Ateca-Amestoy & Castiglione, 2023; Gouvea & Vora, 2016; Pagán et al., 2020).

The variables capturing cultural distance include language, culture, and religion. The language variable, which is widely used in previous research, has a positive and statistically significant effect on bilateral trade. The results indicate that a common language promotes trade in creative goods across nearly all subsectors, except for performing arts, where the effect is not significant. These findings are consistent with earlier studies (Khurana & Nauriyal, 2017; Singh, 2021; Taguchi & Rubasinghe, 2019; Yang & Martinez-Zarzoso, 2014) and support the argument of Melitz and Toubal's (2014) and Disdier's et al. (2010) that language similarity strengthens bilateral trade by reducing communication barriers, uncertainty, and coordination costs. In the present study, the effect of common language is particularly strong in new media and publishing, which is unsurprising given that these categories include books, newspapers, recorded media, video games, and other language-intensive products.

The estimation results for the culture variable show a positive coefficient across all subsectors, indicating that countries with similar cultural identities tend to trade more in creative goods, in line with Takara (2018) and J. Zhou and Zhou (2022). This finding is consistent with self-congruity theory, which suggests that consumers prefer products that reflect their self-image. M. Zhou (2011) likewise argues that countries tend to favour trade partners that are culturally and geographically closer, despite advances in technology and transportation. Other studies using measures of cultural distance show that countries such as the United States and China tend to trade less in several product categories as cultural distance increases (Tadesse & White, 2010; Liu et al., 2021). In the present study, however, no significant effect is found for audiovisuals, performing arts, and publishing, suggesting that the influence of cultural similarity varies across creative subsectors.

Overall, the findings support the view that cultural affinity influences trade volumes in most creative goods, especially arts and crafts, design, new media, and visual arts. Greater cultural distance appears to reduce trade flows because it may signal differences in values, social norms, and institutions, thereby increasing information asymmetries and transaction costs.

These results broadly align with previous studies [Felbermayr and Toubal \(2010\)](#), [Guiso et al. \(2009\)](#), [Long et al. \(2023\)](#), and [Tadesse and White \(2010\)](#), which conclude that differences in values between trading partners tend to inhibit trade. Similarly [Disdier et al. \(2010\)](#) find stronger trade in culturally proximate sectors such as film, suggesting that ACFTA consumers may seek a broader variety of similar but differentiated goods, consistent with [Fazio \(2021\)](#).

The results on cultural distance are also consistent with evidence from selected Asian contexts, including studies on Vietnam and Bangladesh ([Dong & Truong, 2020](#); [Mostafiz et al., 2024](#)), which report that trade volume declines as cultural distance increases. However, the present findings differ from some earlier evidence, such as [Takara's \(2018\)](#) study of music trade in Asia, which found that culture was neither a barrier nor a driver of trade; [Hoang et al.'s \(2020\)](#) study on ASEAN–Taiwan trade; and broader studies using global trade samples ([Ghaith & Wagner, 2025](#); [Yeganeh, 2024](#)), which argue that cultural similarity does not necessarily promote trade.

The common religion variable reflects differences in the religious composition of societies. The estimation results indicate that religious homogeneity does not promote trade in creative goods. Instead, the results suggest that creative trade may be stimulated by religious diversity. In other words, greater religious heterogeneity between countries appears to increase trade in creative products, possibly because consumers seek novelty and diverse cultural experiences. This finding challenges the conventional gravity-model expectation that cultural homogeneity or proximity enhances trade by reducing transaction costs ([Helble, 2006](#); [Lewer & Van Den Berg, 2007](#)). By contrast, the present results support the argument that creative exports benefit from symbolic differentiation and cross-cultural curiosity. In line with arousal theory, religious differences may stimulate exploratory behavior, encouraging consumers to engage with creative goods originating from countries with distinct religious backgrounds

These findings are broadly consistent with [C. W. Lee and Park \(2016\)](#), [Yeganeh \(2024\)](#), [Sdraoui and Mili \(2026\)](#), and [Franco and Maggioni \(2022\)](#), who suggest that religious differences can stimulate trade by generating economic complementarity rather than substitution. At the same time, the present results differ from several earlier studies arguing that religious differences raise trade costs and reduce trade flows ([Costa et al., 2023](#); [Gokmen, 2017](#); [Guiso et al., 2009](#); [Marvasti & Canterbury, 2005](#)). Although religious differences have sometimes been portrayed as barriers to audiovisual content and other creative goods ([Costa et al., 2023](#)), the present study suggests that, within Asia's religiously diverse environment, such differences may instead enhance bilateral trade. Whereas [Guiso et al. \(2009\)](#) find that shared religion promotes trust and trade, prior studies have often focused on more homogeneous contexts, particularly Europe. By contrast, this study examines a more heterogeneous sample of countries and a disaggregated set of product categories, thereby revealing a distinct role for religious diversity.

The coefficients for common religion are particularly large in the audiovisual and new media subsectors, suggesting that religious differences exert a stronger influence in these areas. One reason for the large coefficient size may be that the Compreg index ranges from 0 to 1, so a full shift from completely different to completely similar religious structures represent a substantial cultural change. In addition, the countries included in the sample display considerable diversity in religious composition, which may explain why the coefficients are larger than those found in studies based on more homogeneous samples or on broader trade aggregates such as total exports or services. In the present dataset, 82% of arts and crafts exports occur between countries with an average religious similarity of only 0.02 on a 0–1 scale. Even larger concentrations are observed in the audiovisual and new media subsectors, where more than 90% of exports are concentrated among a small number of country pairs with very low religious similarity, below 0.035 on the same scale

With respect to the trade effects of ACFTA, the results indicate that the agreement reduced

intra-bloc trade (FTA_1) in design, performing arts, publishing, and visual arts. Trade from ACFTA members to non-members (FTA_2) also declined, indicating export diversion following implementation in arts and crafts, audiovisuals, performing arts, and visual arts. Conversely, trade from non-members to ACFTA members (FTA_3) decreased across all subsectors, suggesting that the agreement redirected imports away from non-member countries. Taken together, the overall effects of FTA_1, FTA_2, and FTA_3, summarized in Table 3 as NTC, indicate that ACFTA intensified competition among members and produced trade diversion, export decline, and import redirection across all creative subsectors. These findings imply that ACFTA generated trade diversion throughout the creative economy and may therefore require policy recalibration to ensure that the gains from market liberalization are distributed more effectively.

The trade-diversion effect reported in Table 3 is consistent with Dai et al. (2014), who argue that many FTAs divert trade away from non-members or domestic producers by reducing exports and increasing imports from within the bloc. Similar evidence has been reported for Taiwan–ASEAN trade by Hoang et al. (2020) and for South Asia by Jagdambe and Kannan (2020), Khurana and Nauriyal (2017), and Ramaswamy et al. (2021). Although ACFTA was intended to reduce trade barriers and stimulate intra-member trade through trade creation, the estimation results suggest that it has instead produced trade diversion in member-country exports, as reflected in the decline in export volumes following implementation

The descriptive evidence further illustrates this pattern. Exports of design goods within the ACFTA framework expanded rapidly between 2002 and 2020, suggesting a substantial increase in trade flows, potentially including stronger export linkages from members to non-members (FTA_2). However, among member countries, only Malaysia, Singapore, and, to some extent, Vietnam display relatively diversified export structures in creative goods. These countries show notable improvements in the audiovisual and new media subsectors, indicating that they capture a disproportionate share of trade gains in these industries, consistent with Aguiar and Waldfogel (2021). The production and distribution of audiovisual and media content tend to cluster geographically where talent and capital converge, creating creative hubs. This agglomeration dynamic suggests that trade agreements alone are unlikely to foster the development of complex industries such as audiovisuals and new media unless accompanied by domestic capabilities specific to those sectors. At the same time, rapid technological progress and digitalization have expanded these industries by lowering production and distribution costs and enabling commercialization through new platforms and business models (Aguiar & Waldfogel, 2021). These changes create significant opportunities for countries that possess the appropriate production factors to benefit from trade integration.

Vietnam, Thailand, the Philippines, and Indonesia recorded the highest export volumes in arts and crafts. However, these values fluctuate considerably, suggesting that the subsector faces persistent challenges in generating new products. Compared with sectors producing more homogeneous goods, creative industries are characterized by high initial development costs, significant risk associated with novelty, a strong need for differentiation, intensive labor-skill requirements, limited reproducibility, lower scalability in production, and lengthy development processes. Moreover, intellectual property protection is often integral to such products, which may further delay commercialization compared with more conventional goods.

The Effects of The Asean-China Free Trade Area (Acfta) on Trade: Creation and Diversion in the Creative Economy Subsectors

Table 2. Estimation Results for Exports of Creative Economy Goods Sub-sectors

Variable	Arts and crafts	Audiovisual	Design	New media	Performing arts	Publishing	Visual arts
lnGDPi	0,6397***	1,3679***	0,518***	0,8142***	0,598***	0,7189***	0,7605***
lnGDPj	0,6611***	0,7793***	0,754***	1,205***	0,961***	0,6400***	0,983***
lnPOPi	-0,3000***	-1,0151***	0,096**	-0,0238	0,326***	-0,2098***	0,3375***
lnPOPj	0,0077	-0,3737***	-0,273***	-0,275***	-1,182***	-0,2509***	-0,1622**
lnDistij	0,0599	-1,0997***	-0,008	-0,4601***	-0,026	-0,3621***	0,128
Lang	1,0432***	0,8686 ***	1,315***	2,332***	0,206	1,5354***	1,6558***
Culture	1,1888***	0,1728	0,673***	0,910***	0,1192	0,148	0,4895**
Comreg	-13,121***	-29,179***	-3,592**	-15,229***	-1,442**	-4,455***	-9,847***
FTA_1	-0,1907	1,274***	-0,343**	-0,657	-0,299**	-0,952***	-0,4711**
FTA_2	-0,2965**	-0,4103***	0,457***	0,1578	-0,4276**	0,1481	-0,4745**
FTA_3	-1,3580***	-1,009***	-1,444***	-1,127**	-1,313***	-0,7163***	-1,546***
Cons	-38,421***	-22,571***	-27,104***	-43,452***	-43,957***	-23,693***	-50,004***
R-square	0,70	0,54	0,67	0,65	0,81	0,51	0,81

Note: ***significance at the 1%, ** significance at the 5%, * significance at the 10%

Country effect: Dummy variables for each exporter and importer are used to control for the country heterogeneity. Time effect: Dummy variables were used to capture trends and time-related factors that may influence the dependent variable.

Source: Own calculation

Table 3. Net Trade Creation

	FTA_1 (Intra-bloc Trade)	FTA_2 (Intra to Extra-bloc)	FTA_3 (Exports from Extra-bloc to Intra-bloc)	Net Effect	NTC (%)
Arts and crafts	-0,1907	-0,2965**	-1,358***	-1,6545	-80,88
Audiovisual	1,274***	-0,4103***	-1,009***	-0,1453	-13,52
Design	-0,343**	0,457***	-1,444***	-1,33	-73,55
New media	-0,796*	0,33	-0,739*	-1,535	-78,45
Performing arts	-0,299**	-0,4276**	-1,313***	-2,0396	-86,99
Publishing	-0,952***	0,1418	-0,7163***	-1,66	-81,14
Visual arts	-0,471**	-0,4745**	-1,546***	-2,49	-91,72

Note: NTC is obtained from $(\exp(\text{net effect}) - 1) \times 100$, following [Yang and Martinez-Zarzoso \(2014\)](#)

Sources: Author calculations

The trade-diversion effects appear to be strongest in the visual arts subsector, where intra-bloc trade and trade from extra-bloc to intra-bloc partners both declined. This pattern suggests that the implementation of the agreement reduced trade not only within the ASEAN–China bloc but also between member countries and external partners. Although total exports of creative goods increased over time, the negative coefficients imply that the benefits of the agreement may have been concentrated in a limited number of countries rather than being distributed broadly across members. Based on the observed trade patterns, it is plausible that China captured a larger share of the gains from the agreement by expanding into markets previously served by ASEAN exports, both within ASEAN and in non-member countries, as barriers to Chinese goods were reduced following ACFTA implementation.

4. 2. ROBUSTNESS TEST

To assess the robustness of the model, the PPML estimator was re-applied to Equation (1) using a restricted sample that focused exclusively on China as the exporter and its trading partners in the ASEAN region. This robustness check is justified by China's dominant and rapidly expanding share in creative goods exports during the period under analysis. The results show that language similarity remains a positive and statistically significant determinant of trade. The cultural distance variable also yields positive and significant coefficients, consistent with the baseline estimates. Likewise, the common religion variable generally exhibits a negative association, again in line with the main results. Taken together, these findings support the robustness of the model under alternative sample conditions.

The main differences emerge in the role of geographic distance, which becomes generally positive, and in the FTA-related trade effects, which are estimated only for ASEAN members excluding China. In this robustness specification, an additional dummy variable for China is introduced, taking the value of 1 when China is either the exporter or the importer, to assess its specific influence on the regression results, particularly the FTA variables. The findings indicate that most independent variables retain coefficients consistent with those reported in Tables 2 and 4. As shown in Table 5, the NTC calculations confirm that trade diversion remains the dominant outcome across nearly all creative economy subsectors within ASEAN excluding China, with the notable exception of the audiovisual subsector, where a positive NTC is observed.

Table 4. Robustness Test

Variable	Arts and crafts	Audiovisual	Design	New media	Performing arts	Publishing	Visual arts
lnGDPi	0,5682***	0,8129***	0,4331***	0,1753**	0,4526***	0,4497***	0,5214***
lnGDPj	0,7131***	0,3439***	0,8306***	1,1886***	1,0115***	0,6659***	0,9426***
lnPOPi	0,4242***	-0,1846**	0,5033***	0,2966***	0,4220***	0,2929***	0,5498**
lnPOPj	0,0750	0,3805***	-0,0063*	-0,1862**	-0,1312**	0,0455	-0,0480
lnDistij	0,3984***	-0,5535***	0,4446***	0,1835*	0,0518	0,4522**	0,5005***
Lang	1,6887***	3,1921***	2,4812***	2,9657***	1,1624***	2,8064***	1,7930***
Culture	1,2994***	-0,3787**	1,4329***	1,2971***	0,4048**	0,8417**	1,0905***
Comreg	-82,138**	-196,013***	7,941	133,032**	24,638	-90,199	14,906
FTA_1	0,0529***	2,222***	-0,5796***	-1,2722***	-0,5459**	-1,285***	-0,4989**
FTA_2	-0,345***	0,950**	0,1049	1,2387***	-0,2598	0,1567	-0,3227*
FTA_3	-1,8496***	0,8234**	-1,714***	-0,286	-1,2416***	-0,6259**	-1,509***
Cons	-44,473***	-30,101***	-42,999***	-38,921***	-44,975***	-38,6859***	-51,707***
R-square	0,86	0,67	0,80	0,77	0,83	0,81	0,87

Note : ***significance at the 1%, ** significance at the 5%, * significance at the 10%

Sources: Own calculations

Table 5. Net Trade Creation (NTC)

Export	FTA_1 (Intra-bloc Trade Creation)	FTA_2 (Intra to Extra-bloc Export Creation)	FTA_3 (Extra-bloc to Member Exports)	Net Effect	NTC (%)
Arts and crafts	0,0529***	-0,345***	-1,8496***	-2,1417	-88,25
Audiovisual	2,222***	0,950**	0,8234**	3,9963	53,39
Design	-0,5796***	0,1049	-1,714***	-1,6091	-79,99
New media	-1,2722***	1,2387***	-0,286	-1,5582	-78,94
Performing arts	-0,5459**	-0,2598	-1,2416***	-1,5014	-77,71
Publishing	-1,285***	0,1567	-0,6259**	-0,4692	-37,44
Visual arts	-0,4989**	-0,3227*	-1,509***	-2,3306	-90,27

Note: Net Trade Creation is obtained from $(\exp(\text{net effect}) - 1) \times 100$, following Yang and Martinez-Zarzoso (2014)

Sources: Own calculations

5. CONCLUSION

The findings show that all seven creative economy subsectors—arts and crafts, audiovisuals, design, new media, performing arts, publishing, and visual arts—experienced trade diversion following the establishment of ACFTA. Developing ASEAN economies remain primarily concentrated in design and arts and crafts exports, whereas more advanced ASEAN members have expanded their presence in the audiovisual, new media, and publishing subsectors. Overall, ACFTA appears to have redirected trade flows in creative goods, potentially supporting export growth for a limited group of partners while reducing imports from non-member countries.

The GDP of both exporting and importing countries is positively and significantly associated with trade in creative goods and services. By contrast, geographic distance significantly affects trade in only three of the seven subsectors, suggesting that it is a less important determinant of trade in creative products than in more standardized goods, where creativity, uniqueness, and originality are less central.

The results also indicate that cultural identity, as defined by Huntington's classification, exerts a positive and significant influence on international trade volumes. Countries sharing the same cultural identity are more likely to trade with one another. Similarly, the positive coefficient on the language variable suggests that a common language between exporters and importers facilitates trade in creative economy goods. In contrast, the religious similarity index indicates that countries with different religious backgrounds tend to trade more intensively in creative industries.

These findings suggest that although ACFTA has generated trade diversion within the ASEAN–China region, ASEAN countries still possess considerable export potential in the creative sector. Trade flows in creative goods can be strengthened by cultural proximity, shared language, and religious diversity, while rising incomes across member countries are likely to increase demand for such products. At the same time, the results point to the need for a broader reassessment of ACFTA to ensure a more equitable distribution of benefits across all member states. At present, only a limited number of countries appear to derive substantially greater gains from the agreement. This uneven distribution is partly linked to the structural characteristics of the creative sector, including product diversity, limited scalability, high risk, dependence on talent, low reproducibility, high entry and sunk costs, agglomeration effects, time sensitivity, and information asymmetries. Future research should therefore incorporate variables that better capture these sector-specific features.

Taken together, the results indicate that ACFTA has generated more trade diversion than trade creation in the creative economy. Given the importance of cultural proximity, stronger engage-

ment with culturally similar markets may enhance export opportunities for creative goods. Policymakers should therefore reassess the regulatory design of international agreements to better exploit the sector's potential and maximize the gains from integration. This includes strengthening provisions related to intellectual property rights, talent mobility, e-commerce, services, investment, and dispute resolution, all of which are essential for the development of creative industries. Future studies should broaden the analytical framework by including additional variables that more fully explain ACFTA's effects and better capture the role of cultural distance in trade in creative goods.

Acknowledgements

This research is supported by the Indonesian Endowment Fund for Education (LPDP) on behalf of the Indonesian Ministry of Higher Education, Science and Technology and managed under the EQUITY Program (Contract No. 4300/B3/DT.03.08/2025 and 297/UN3/HK.07.00/2025).

Institutional Review Board Statement

Not applicable

Informed Consent Statement

Not applicable

Data Availability Statement

The data presented in this study are derived from publicly available sources, including UNCTAD, the World Bank, and the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII). The data on cultural identity is based on Huntington's *The Clash of Civilizations* (1996).

Conflicts of Interest

The authors declare no conflicts of interest.

REFERENCES

- Aguiar, L., & Waldfogel, J. (2021). Platforms, Power, and Promotion: Evidence from Spotify Playlists. *The Journal of Industrial Economics*, 69(3), 653–691. <https://doi.org/10.1111/joie.12263>
- Alhassan, A., & Payaslioglu, C. (2024). Trade Diversion and Creation Effect of Free Trade Agreements in ASEAN: Do Institutions Matter? *Journal of the Knowledge Economy*, 15(1), 917–935. <https://doi.org/10.1007/s13132-023-01108-z>
- Anderson, J. E. (1979). A theoretical foundation for the gravity equation. *The American Economic Review*, 69(1), 106–116. <https://www.jstor.org/stable/1802501>
- Anderson, J. E., & Van Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. *American Economic Review*, 93(1), 170–192. <https://doi.org/10.1257/000282803321455214>
- Ateca-Amestoy, V., & Castiglione, C. (2023). Live and digital engagement with the visual arts. *Journal of Cultural Economics*, 47(4), 643–692. <https://doi.org/10.1007/s10824-022-09466-3>
- Baier, S. L., & Bergstrand, J. H. (2007). Do free trade agreements actually increase members' international trade? *Journal of International Economics*, 71(1), 72–95. <https://doi.org/10.1016/j.jinteco.2006.02.005>
- Berthelon, M., & Freund, C. (2008). On the conservation of distance in international trade. *Journal of International Economics*, 75(2), 310–320. <https://doi.org/10.1016/j.jinteco.2007.12.005>
- Bhowmik, R., Zhu, Y., & Gao, K. (2021). An analysis of trade cooperation: Central region in China and ASEAN. *PLOS ONE*, 16(12), e0261270. <https://doi.org/10.1371/journal.pone.0261270>
- Borchert, I., & Yotov, Y. V. (2017). Distance, globalization, and international trade. *Economics Letters*, 153, 32–38. <https://doi.org/10.1016/j.econlet.2017.01.023>
- Cevik, M., Fazio, G., & Maioli, S. (2025). Culture as Collateral Damage? Evidence From the Impact of Sanctions on Cultural Trade. *The World Economy*, twec.70012. <https://doi.org/10.1111/twec.70012>
- Costa, M. G. O., Nishijima, M., Schor, A., & Perloti, E. A. (2023). Bilateral trade of films, religion, and democracy (2002–2015). *Discover Global Society*, 1(1), 15. <https://doi.org/10.1007/s44282-023-00017-5>
- Dai, M., Yotov, Y. V., & Zylkin, T. (2014). On the trade-diversion effects of free trade agreements. *Economics Letters*, 122(2), 321–325. <https://doi.org/10.1016/j.econlet.2013.12.024>
- Disdier, A.-C., Tai, S. H. T., Fontagné, L., & Mayer, T. (2010). Bilateral trade of cultural goods. *Review of World Economics*, 145(4), 575–595. <https://doi.org/10.1007/s10290-009-0030-5>
- Doan, N. T., & Tran, M. H. (2023). Quantifying the Effect of Economic Sanctions on Trade in Cultural Goods. *International Economic Journal*, 37(3), 401–423. <https://doi.org/10.1080/10168737.2023.2220300>
- Dong, C. V., & Truong, H. Q. (2020). The determinants of creative goods exports: Evidence from Vietnam. *Journal of Cultural Economics*, 44(2), 281–308. <https://doi.org/10.1007/s10824-019-09359-y>
- Fazio, G. (2021). A Review of Creative Trade in the Economics literature. *Creative Industries Policy & Evidence Centre (PEC) Discussion Papers*. https://pec.ac.uk/discussion_paper_/a-review-of-creative-trade-in-the-economics-literature/
- Felbermayr, G. J., & Toubal, F. (2010). Cultural proximity and trade. *European Economic Review*, 54(2), 279–293. <https://doi.org/10.1016/j.euroecorev.2009.06.009>
- Franco, C., & Maggioni, D. (2022). Does international trade favor proximity in cultural beliefs? *Eurasian Economic Review*, 12(3), 449–477. <https://doi.org/10.1007/s40822-022-00212-w>
- Fukunaga, Y., & Ishido, H. (2013, May). *Assessing the Progress of Services Liberalization in the ASEAN-China Free Trade Area (ACFTA)*. <https://www.eria.org/publications/assessing-the-progress-of-services-liberalization-in-the-asean-china-free-trade-area-acfta/>
- Ghaith, Z., & Wagner, D. (2025). The impact of cultural factors on international trade: An empirical analysis. *International Economics and Economic Policy*, 22(3), 45. <https://doi.org/10.1007/s10368-025-00670-y>

- Gokmen, G. (2017). Clash of civilizations and the impact of cultural differences on trade. *Journal of Development Economics*, 127, 449–458. <https://doi.org/10.1016/j.jdeveco.2016.12.008>
- Gouvea, R., & Vora, G. (2016). Global trade in creative services: An empirical exploration. *Creative Industries Journal*, 9(1), 66–93. <https://doi.org/10.1080/17510694.2016.1206361>
- Guiso, L., Sapienza, P., & Zingales, L. (2009). Cultural Biases in Economic Exchange? *Quarterly Journal of Economics*, 124(3), 1095–1131. <https://doi.org/10.1162/qjec.2009.124.3.1095>
- Handoyo, R. D., Sugiharti, L., & Esquivias, M. A. (2021). Trade Creation and Trade Diversion Effects: The Case of the Asean Plus Six Free Trade Area. *Bulletin of Monetary Economics and Banking*, 24(1), 26. <https://doi.org/10.21098/bemp.v24i1.1163>
- Helble, M. (2006). On the influence of world religions on international trade. *Journal of Public and International Affairs*, 17, 209–232. <https://jpia.princeton.edu/sites/jpia/files/2006-10.pdf>
- Helpman, E., Melitz, M., & Rubinstein, Y. (2008). Estimating Trade Flows: Trading Partners and Trading Volumes. *The Quarterly Journal of Economics*, 123(2), 441–487. <https://doi.org/10.1162/qjec.2008.123.2.441>
- Hoang, N. T. T., Truong, H. Q., & Van Dong, C. (2020). Determinants of Trade Between Taiwan and ASEAN Countries: A PPML Estimator Approach. *Sage Open*, 10(2), 2158244020919516. <https://doi.org/10.1177/2158244020919516>
- Huntington, S. P. (1993). The Clash of Civilizations? *Foreign Affairs*, 72(3), 22. <https://doi.org/10.2307/20045621>
- Jagdamba, S., & Kannan, E. (2020). Effects of ASEAN-India Free Trade Agreement on agricultural trade: The gravity model approach. *World Development Perspectives*, 19, 100212. <https://doi.org/10.1016/j.wdp.2020.100212>
- Kalev, P. S., & Lee, A. (2025). LIETF trading behavior during U.S. – China trade war. *Economics - Innovative and Economics Research Journal*, 13(4), 381–398. <https://doi.org/10.2478/eoik-2025-0100>
- Khurana, R., & Nauriyal, D. K. (2017). ASEAN-India Free Trade Agreement: Evaluating Trade Creation and Trade Diversion Effects. *Journal of East-West Business*, 23(3), 283–307. <https://doi.org/10.1080/10669868.2017.1322548>
- Kogut, B., & Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies*, 19(3), 411–432. <https://doi.org/10.1057/palgrave.jibs.8490394>
- Lee, C. W., & Park, S. (2016). Does Religious Similarity Matter in International Trade in Services? *The World Economy*, 39(3), 409–425. <https://doi.org/10.1111/twec.12276>
- Lee, G. E., & Park, I. (2021). An ex-post analysis of trade effects of the ASEAN–Korea Free Trade Area (AKFTA) from Korea’s Perspective. *International Area Studies Review*, 24(4), 292–313. <https://doi.org/10.1177/22338659211024865>
- Lewer, J. J., & Van Den Berg, H. (2007). Religion and International Trade: Does the Sharing of a Religious Culture Facilitate the Formation of Trade Networks? *The American Journal of Economics and Sociology*, 66(4), 765–794. <https://doi.org/10.1111/j.1536-7150.2007.00539.x>
- Liu, A., Lu, C., & Wang, Z. (2021). Does cultural distance hinder exports?: A comparative study of China and the United States. *Economic Modelling*, 105, 105668. <https://doi.org/10.1016/j.econmod.2021.105668>
- Long, N. T., Gam, N. T., Van, V. H., & Ngoc, B. H. (2023). The role of cultural and institutional distances in international trade. *Emerging Science Journal*, 7(2), 507–519. <https://ijournalse.org/index.php/ESJ/index>
- Marvasti, A., & Canterbury, E. R. (2005). Cultural and Other Barriers to Motion Pictures Trade. *Economic Inquiry*, 43(1), 39–54. <https://doi.org/10.1093/ei/cbi004>
- Melitz, J., & Toubal, F. (2014). Native language, spoken language, translation and trade. *Journal of International Economics*, 93(2), 351–363. <https://doi.org/10.1016/j.jinteco.2014.04.004>
- Mostafiz, F., Akter, M., & Rahman, M. (2024). Cultural distance and bilateral trade: A transitional economy perspective. *Business Strategy & Development*, 7(2), e393. <https://doi.org/10.1002/bsd2.393>

- Nawrot, K. A. (2023). Assessing the effects of trade regionalism in East Asia – evidence from augmented gravity models. *Applied Economics*, 55(12), 1285–1297. <https://doi.org/10.1080/00036846.2022.2097181>
- Pagán, E. A., Salvatella, M. D. M. G., Pitarch, M. D., Muñoz, A. L., Toledo, M. D. M. M., Ruiz, J. M., Vitella, M., Lo Cicero, G., Rottensteiner, F., Clermont, D., Dorozynski, M., Wittich, D., Vernus, P., & Puren, M. (2020). From Silk to Digital Technologies: A Gateway to New Opportunities for Creative Industries, Traditional Crafts and Designers. The SILKNOW Case. *Sustainability*, 12(19), 8279. <https://doi.org/10.3390/su12198279>
- Pfaermayr, M. (2018). *Trade creation and trade diversion of regional trade agreements revisited: A constrained panel pseudo-maximum likelihood approach*. Working Papers in Economics and Statistics. <https://ideas.repec.org/p/inn/wpaper/2018-08.html>
- Ramaswamy, S., Choutagunta, A., & Sahu, S. K. (2021). Evaluating Asian Free Trade Agreements: What Does Gravity Model Tell Us? *Foreign Trade Review*, 56(1), 60–70. <https://doi.org/10.1177/0015732520961330>
- Sadraoui, T., & Mili, H. (2026). Revisiting the Oil Price–Inflation Nexus in MENA Economies: Evidence from a Nonlinear ARDL Approach. *Economics - Innovative and Economic Research Journal*, 14(1), 97-109. <https://doi.org/10.2478/eoik-2026-0005>
- Selmier, W. T., & Oh, C. H. (2013). The Power of Major Trade Languages in Trade and Foreign Direct Investment. *Review of International Political Economy*, 20(3), 486–514. <https://doi.org/10.1080/09692290.2011.648567>
- Silva, J. S., & Tenreyro, S. (2006). The log of gravity. *The Review of Economics and Statistics*, 88(4), 641–658. <https://doi.org/10.1162/rest.88.4.641>
- Singh, L. B. (2021). Impact of India-ASEAN Free Trade Agreement: An Assessment from the Trade Creation and Trade Diversion Effects. *Foreign Trade Review*, 56(4), 400–414. <https://doi.org/10.1177/00157325211021503>
- Sun, Z., & Li, X. (2018). The trade margins of Chinese agricultural exports to ASEAN and their determinants. *Journal of Integrative Agriculture*, 17(10), 2356–2367. [https://doi.org/10.1016/S2095-3119\(18\)62084-2](https://doi.org/10.1016/S2095-3119(18)62084-2)
- Szalanczi, A., & Trinh, M. (2017). *Trade Creation and Trade Diversion Effects of ASEAN-Japan Comprehensive Economic Partnership (AJCEP)*. <https://mpra.ub.uni-muenchen.de/80931/>
- Tadesse, B., & White, R. (2010). Does Cultural Distance Hinder Trade in Goods? A Comparative Study of Nine OECD Member Nations. *Open Economies Review*, 21(2), 237–261. <https://doi.org/10.1007/s11079-008-9090-8>
- Taguchi, H., & Rubasinghe, D. C. I. (2019). Trade Impacts of South Asian Free Trade Agreements in Sri Lanka. *South Asia Economic Journal*, 20(1), 1–18. <https://doi.org/10.1177/1391561418822203>
- Takara, Y. (2018). Do cultural differences affect the trade of cultural goods? A study in trade of music. *Journal of Cultural Economics*, 42(3), 393–417. <https://doi.org/10.1007/s10824-017-9313-1>
- Tang, C., Rosland, A., Li, J., & Yasmeen, R. (2024). The comparison of bilateral trade between China and ASEAN, China and EU: From the aspect of trade structure, trade complementarity and structural gravity model of trade. *Applied Economics*, 56(9), 1077–1089. <https://doi.org/10.1080/00036846.2023.2174940>
- Timsina, K. P., & Culas, R. J. (2019). Do Free Trade Agreements Increase Australian Trade: An Application of Poisson Pseudo Maximum Likelihood Estimator? *Journal of East-West Business*, 26(1), 56–80. <https://doi.org/10.1080/10669868.2019.1685056>
- Timsina, K. P., & Culas, R. J. (2020). Impacts of Australia’s free trade agreements on trade in agricultural products: An aggregative and disaggregative analysis. *Australian Journal of Agricultural and Resource Economics*, 1467-8489.12377. <https://doi.org/10.1111/1467-8489.12377>
- Tinbergen, J. J. (1962). *Shaping the world economy; suggestions for an international economic policy*. <https://doi.org/10.2307/2196248>

- Urata, S., & Okabe, M. (2014). Trade Creation and Diversion Effects of Regional Trade Agreements: A Product-level Analysis. *The World Economy*, 37(2), 267–289. <https://doi.org/10.1111/twec.12099>
- Viner, J. (1950). The Customs Union Issue. Carnegie Endowment for International Peace. New York. <https://archive.org/details/customsunionissu00vine>
- Wang, L., & Chen, K. (2025). The impact of trade liberalization on China–ASEAN trade relations along the belt and road: An augmented gravity model analysis. *Finance Research Letters*, 71, 106418. <https://doi.org/10.1016/j.frl.2024.106418>
- Wang, Y., Yang, Z., & Yasar, M. (2020). A Multilevel investigation into the effect of cultural distance on bilateral trade: The roles of product type and uncertainty avoidance. *Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences de l'Administration*, 37(4), 495–512. <https://doi.org/10.1002/cjas.1572>
- Yang, S., & Martinez-Zarzoso, I. (2014). A panel data analysis of trade creation and trade diversion effects: The case of ASEAN–China Free Trade Area. *China Economic Review*, 29, 138–151. <https://doi.org/10.1016/j.chieco.2014.04.002>
- Yeganeh, K. H. (2024). An Analysis of the Effects of Cultural, Religious, and Linguistic Differences on International Trade. *Journal of East-West Business*, 30(1), 66–91. <https://doi.org/10.1080/10669868.2023.2258873>
- Zhai, H. (2023). Evaluation of China-ASEAN trade status and trade potential: An empirical study based on a gravity model. *PLOS ONE*, 18(9), e0290897. <https://doi.org/10.1371/journal.pone.0290897>
- Zhou, J., & Zhou, Z. (2022). The influences of cultural values on the cultural product trade: Evidence from China, Japan and Korea. *Nankai Business Review International*, 13(2), 201–219. <https://doi.org/10.1108/NBRI-07-2020-0035>
- Zhou, M. (2011). Intensification of geo-cultural homophily in global trade: Evidence from the gravity model. *Social Science Research*, 40(1), 193–209. <https://doi.org/10.1016/j.ssresearch.2010.07.002>