

Does Culture have a Significant Role in Luring in Foreign Direct Investment to Amplify Market Existence in The Global Territory?



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ABSTRACT: Foreign companies want to explore new markets where market proliferation may be achievable in order to maximize market dominance and resource escalation; nonetheless, cultural inconsistencies and unfathomable disparities pose enormous hurdles for foreign companies. The primary goal of this study is to conceptualize globalization as a centrifugal process with de-escalating trade barriers in order to determine the cultural impact on foreign direct investment transfers across national borders. I used panel data for 62 countries in this fascinating analysis, focusing on South and Southeast Asia, Africa, and Europe between 2010 and 2023. To that end, I have explored the notion that culture inexorably plays a role in society by using the panels corrected standard errors (PCSE), feasible generic least squares method (FGLS), and random effect model (REM).

KEY WORDS: Centrifugal, foreign direct investment, panels corrected standard errors, feasible generic least squares method, random effect model

INTRODUCTION

Because of the concept of globalization, each country realizes that economic advancement and emancipation depend on amplifying integration with other countries. Foreign direct investment is a common entry strategy to enter into another country in order to maximize market existence. The fundamental forces behind this new global economy are large multinational corporations, which expand globally by entering new markets and internationalizing their supply chains in an effort to reach a wider audience. MNEs currently account for one-third of global commerce, with intra-firm trade making up the majority of this amount. The most significant characteristic of foreign direct investment (FDI) is its prevalence in areas where the traditional competitive paradigm is least appropriate (Brouwer et al., 2008).

Cultural consistency plays a critical role in ensuring the unremitting flow of foreign direct investment in the world. MNCs need to conspicuously and profoundly conduct manifold research to get a vivid understanding of the cultural inconsistency because these cultural dissimilarities make indecipherable perplexities. According to Akhtaruzzaman et al. (2017), cultural institutions have long-lasting, notably favorable benefits on FDI. Many forms of cultural diversity, which impact business partners' trust levels and raise communication costs for international companies trying to comprehend local culture (Feng et al., 2021; Pendakur & Pendakur, 2002;).

Cultural stability is required to arrange a commensurate environment and conducive trade policies to arrange staggering foreign direct investment that surely helps to advance economic superiorities and competitiveness. (Brouwe et al., 2008).

LITERATURE REVIEW

When international companies are choosing their next best location, cultural engagement and the cultural interface play a critical role (Shenkar et al., 2020). Market size, growth, globalization and economic freedom, political stability, institutional caliber, and financial development in the receiving nation are all factors that frequently affect inward foreign direct investment (FDI) (Saini and Singhanian, 2018; Economou, 2019). It has been demonstrated that culture influences people's beliefs, perceptions, behavior, and decision-making. These factors eventually impact consumer and company purchase and investment decisions, two fundamental facets of international commerce (Hutzschenreuter and Voll 2008). The ownership and location-specific factors that govern MNEs' foreign country entry modes are greatly influenced by national culture (Beugelsdijk et al., 2017) and it looks at how culture affects foreign direct investment (FDI) both directly and indirectly, finding that culture has an indirect effect on FDI through its influence on formal institutions.

The idea that culture "shapes formal institutions" is constrained since the indirect impact of culture on FDI is mediated through formal institutions. In essence, it is discovered that the influence of cultural elements outweighs the influence of formal institutions.

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Similarly, in cross-country regressions, a recent study by Greenstone Mreveals et al.,(2020) that cultural characteristics (embeddedness vs. autonomy; hierarchy vs. egalitarianism; mastery vs. harmony) have substantial and bigger effects than formal institutions. Both studies provide evidence in favor of the theoretical claims that emphasize the significance of cultural elements in understanding the roles performed by formal institutions and that distinguishing characteristics of national.

When dealing with the influence of cultural values, more subjective factors—like cultural ones—have been used more and more, particularly on two types of decisions: (1) selecting a host country (Berry, Guillén & Zhou, 2010; Dow & Ferencikova, 2010; (2) making a direct investment abroad (Du, Lu & Tao, 2012; Feils & Rahman, 2011; Makino & Tsang, 2011; Malhotra, Sivakumar & Zhu, 2009;) encourage to proceed foreign direct investment in global territory.

In contrast, individualism, masculinity, and uncertainty avoidance are examples of cultural aspects that, according to Kayalvizhi and Thenmozhi (2018), have less of an impact on inward FDI for emerging nations.

MODEL SPECIFICATION

Based on this concentration, this article employs panel data from 62 different countries over the period 2010–2023. Here the paper mainly employs REM, FGLS, and PCSE estimation methods to determine the relationship between culture and foreign direct investment. To estimate the relationship, the paper has constituted the following equation. Here, the equation that follows will apply to all 62 of the countries; it then applies to South Asia and Southeast Asia; it then applies to Africa; and finally, it addresses Europe. Based on the following regression equation, the empirical research primarily focuses on the relationship between FDI and culture.

$$\text{Log (FDI/POP)}_{it} = \beta_0 + \beta_1 \text{Culture}_{i,t-1} + \beta_2 \text{GDPPC}_{i,t-1} + \beta_3 \text{RISK}_{i,t-1} + \beta_4 \text{OPEN}_{i,t-1} + \beta_5 \text{INF}_{i,t-1} + \beta_6 \text{GSEP}_{i,t-1} + \beta_7 \text{BURA}_{i,t-1} + \beta_8 \text{LAW}_{i,t-1} + \beta_9 \text{DEMOC}_{i,t-1} + \eta_i + \epsilon_{i,t} \dots \dots \dots (1)$$

Where i is the country subscript, t is the time subscript, β s are unknown parameters to be estimated, ϵ is the usual random disturbance term, and η is the unobserved country-specific effects.

To determine the relationship a relationship between culture and FDI for the Asian countries, here is the equation.

$$(\text{FDI/POP})_{it} = \beta_0 + \beta_1 \text{Culture}_{i,t-1} + \beta_2 \text{GDPPC}_{i,t-1} + \beta_3 \text{RISK}_{i,t-1} + \beta_4 \text{OPEN}_{i,t-1} + \beta_5 \text{INF}_{i,t-1} + \beta_6 \text{GSEP}_{i,t-1} + \beta_7 \text{BURA}_{i,t-1} + \beta_8 \text{LAW}_{i,t-1} + \beta_9 \text{DEMOC}_{i,t-1} + \eta_i + \epsilon_{i,t} \dots \dots \dots (2)$$

To explore another relationship between culture and FDI for African countries, here is the establish equation.

$$(\text{FDI/POP})_{it} = \beta_0 + \beta_1 \text{Culture}_{i,t-1} + \beta_2 \text{GDPPC}_{i,t-1} + \beta_3 \text{RISK}_{i,t-1} + \beta_4 \text{OPEN}_{i,t-1} + \beta_5 \text{INF}_{i,t-1} + \beta_6 \text{GSEP}_{i,t-1} + \beta_7 \text{BURA}_{i,t-1} + \beta_8 \text{LAW}_{i,t-1} + \beta_9 \text{DEMOC}_{i,t-1} + \eta_i + \epsilon_{i,t} \dots \dots \dots (3)$$

There is another equation that will establish a relationship between culture and FDI for Europe countries.

$$\text{FDI/POP}_{it} = \beta_0 + \beta_1 \text{Culture}_{i,t-1} + \beta_2 \text{GDPPC}_{i,t-1} + \beta_3 \text{RISK}_{i,t-1} + \beta_4 \text{OPEN}_{i,t-1} + \beta_5 \text{INF}_{i,t-1} + \beta_6 \text{GSEP}_{i,t-1} + \beta_7 \text{BURA}_{i,t-1} + \beta_8 \text{LAW}_{i,t-1} + \beta_9 \text{DEMOC}_{i,t-1} + \eta_i + \epsilon_{i,t} \dots \dots \dots (4)$$

In the random effects model, the individual-special effect is a random variable that is uncorrelated with the explanatory variables.

RE1: Unrelated effects

$$E[cijXi; zi] = 0$$

RE1 assumes that the individual-special effect is a random variable that is uncorrelated with the explanatory variables of all past, current and future time periods of the same individual.

RE2: Effect Variance

$$a) V [cijXi; zi] = \sigma^2_c < \infty \text{ (homoscedastic)}$$

$$b) V [cijXi; zi] = \sigma^2_{c,i}(X_i, z_i) < \infty \text{ (heteroscedastic)}$$

RE2a assumes constant variance of the individual specific effect.

RE3: Identifiability

$$a) \text{Rank}(W) = K + M + 1 < NT \text{ and } E[W_i' Wi] = Q_{WW} \text{ is p.d. and finite. The typical element } w'_{ii} = [1 \ x'_{ii} \ Z'_{ii}]$$

$$b) \text{Rank}(W) = K + M + 1 < NT \text{ and } E[W_i' \Omega_{v,i}^{-1} w_i] = Q_{wov} \text{ is p.d. and finite. } \Omega_{v,i} \text{ is defined below.}$$

RE3 assumes that the regressors including a constant are not perfectly collinear, that all regressors (but the constant) have non-zero variance and not too many extreme values.

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In the fixed effects model, the individual-special effect is a random variable that is allowed to be correlated with the explanatory variables.

FE1: Related effects

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FE1 explicitly states the absence of the unrelatedness assumption in RE1.

FE2: Effect Variance

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FE2 explicitly states the absence of the assumption in RE2.

FE3: Identifiability

Rank(\ddot{x}) = $K < NT$ and $E(\ddot{x}'_i \ddot{x}_i)$ is p.d. and finite

Where the typical element $\ddot{x}_{it} = x_{it} - \bar{x}_i$ and $\bar{x}_i = 1/T \sum_t x_{it}$

FE3 assumes that the time-varying explanatory variables are not perfectly collinear, that they have non-zero within-variance (i.e. variation over time for a given individual) and not too many extreme values. x_{it} cannot include a constant or any time-invariant variables. Note that only the parameters β but neither α nor γ are identifiable in the fixed effects model.

This study also used other appropriate panel data analysis methods such as feasible general least squares method (FGLS) and regression with panels corrected standard errors (PCSE) because heteroskedastic models are usually fitted with feasible generalized least squares (EGLS or FGLS). Similarly, PCSE allow for panel-level heteroskedasticity and contemporaneous correlation of observations between the panels.

Instead of assuming the structure of heteroskedasticity, the work may estimate the structure of heteroskedasticity from OLS. First, estimate $\hat{\Omega}$ from OLS and, second, use $\hat{\Omega}$ instead of Ω .

$$\hat{\beta}_{FGLS} = (X' \hat{\Omega}^{-1} X)^{-1} X' \hat{\Omega}^{-1} y$$

There are many ways to estimate FGLS. But one flexible approach is to assume that

$$\text{Var}(u | X) = u^2 = \sigma^2 \exp(\delta_0 + \delta_1 x_1 + \delta_2 x_2 + \delta_3 x_3 + \dots + \delta_k x_k)$$

By taking log of the both sides and using \hat{u} instead of u^2 , we can estimate

$$\text{Log}(\hat{u}^2) = \alpha_0 + \delta_1 x_1 + \delta_2 x_2 + \delta_3 x_3 + \dots + \delta_k x_k + e$$

The predicted value from this model is $\hat{g} = \log(\hat{u}^2)$. To convert it by taking the exponential

$$\text{into } \hat{\omega}_1 = \exp(\hat{g}_1) = \exp(\log(\hat{u}^2)) = \hat{u}^2.$$

DISCUSSION

Based on the three panel estimating methodologies, the empirical evidence indicates that culture is a significant factor in attracting foreign direct investment. Using REM, FGLS, and PCSE estimation methods, the model indicates that the cultural variable is statistically significant at 1%; the corresponding results are 0.0421*, 0.0544*, and 0.0724*. It primarily shows that there is a large increase in FDI with cultural stability. It is evident from the three panel estimation techniques that the GDPPC variable is statistically significant at 1%. Inward FDI into the economy may rise by 14.45 percentage points if a nation can boost its GDPPC by 1% using the REM, FGLS, and PCSE estimation methods. Additionally, the models of the FGLS and PCSE estimation methods indicate that a 1% growth in GDPPC.

Using the REM, FGLS, and PCSE estimating methodologies, the empirical results show that for every 1% reduction in cultural risk, FDI will increase by approximately 7.44, 5.72, and 2.51 percent, respectively. FDI rises when cultures support trade openness. Using REM, FGLS, and PCSE estimating methodologies, it can be observed from the evidence that FDI will grow by around 4.15, 5.83, and 6.29 percent for every 1% increase in openness.

A 1% decrease in inflation will result in a considerable rise in foreign direct investment, as demonstrated by the models REM, FGLS, and PCSE, in that order. It's certain that bureaucratic flexibilities will boost FDI from various angles. According to research,

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lowering bureaucratic intrusion fosters an enticing environment that attracts more FDI. The REM estimates that for every 1% decrease in bureaucratic interference, FDI will grow by 2.21, 2.82, and 3.28 percent, respectively, for FGLS and PCSE.

Table: 1 Random effect model (REM), Feasible General least Squares method (FGLS) FGLS and Panels Corrected Standard Errors (PCSE) for 62 countries

FDI inflow	REM	FGLS	PCSE
Culture	0.0421* (0.126)	0.0544* (0.189)	0.0724* (0.180)
GDPPC	0.1445* (0.211)	0.1165* (0.241)	0.1421* (0.302)
RISK	-0.0744* (0.201)	-0.0572* (0.194)	-0.0251* (0.293)
OPEN	0.0415** (0.210)	0.0583** (0.174)	0.0629** (0.182)
INFLA	-0.0325* (0.149)	-0.0403* (0.153)	-0.0582* (0.188)
GSEP	0.0121** (0.053)	0.0126** (0.049)	0.0188** (0.024)
BURA	-0.0221* (0.230)	-0.0282* (0.329)	-0.0328* (0.304)
LAW	0.0427** (0.233)	0.0443** (0.268)	0.0539** (0.289)
DEMOC	0.0536** (0.350)	0.0495** (0.308)	0.0430** (0.429)
Constant	0.6031 (0.302)	0.5439 (0.398)	0.6294 (0.492)
Number of Observation	630	630	630
Wald chi 2 (8)	210.44	294.62	245.65
Prob > chi 2	0.0000	0.0000	0.0000

An additional important aspect of law that is crucial in luring FDI. Using the REM, FGLS, and PCSE estimating methodologies, respectively, FDI will increase by approximately 4.27, 4.44, and 5.39 percent for every 1% improvement in the law. FDI is being stimulated by democratic political ideology. Using REM, FGLS, and PCSE estimation methods, the three panel estimation methods show that the democracy variable is statistically significant at 5%. Evidence from the REM, FGLS, and PCSE estimating methodologies further confirmed that, at constant levels of other variables, a 1% increase in promoting democracy might result in 5.36, 4.95, and 4.30 percentage point increases in FDI inflow, respectively.

Table: 2 Random effect model (REM), Feasible General least Squares method (FGLS) FGLS and Panels Corrected Standard Errors (PCSE) in the Asian Countries

FDI inflow	REM	FGLS	PCSE
Culture	0.0425* (0.105)	0.0593* (0.129)	0.0481* (0.157)
GDPPC	0.1839** (0.129)	0.1526** (0.135)	0.1621** (0.166)
RISK	-0.0983* (0.265)	-0.0589* (0.235)	-0.0482* (0.281)
OPEN	0.0403** (0.211)	0.0565** (0.205)	0.0539** (0.247)
INFLA	-0.0671** (0.393)	-0.0506** (0.288)	-0.0481** (0.187)
GSEP	0.0341* (0.218)	0.0376* (0.327)	0.0411* (0.205)
BURA	0.0299* (0.218)	0.0291* (0.327)	0.0253* (0.205)

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	(0.392)	(0.248)	(0.269)
LAW	0.0266* (0.291)	0.0485* (0.233)	0.0438* (0.278)
DEMOC	0.0405** (0.347)	0.0530** (0.484)	0.0912** (0.439)
Constant	0.0914 (0.284)	0.1170 (0.317)	0.1226 (0.409)
Number of Observation	630	630	630
Wald chi 2 (8)	319.24	289.61	275.16
Prob > chi 2	0.0000	0.0000	0.0000

From the Table: 2 In order to ascertain the correlation between culture and foreign direct investment (FDI) in industrialized nations, the REM, FGLS, and PCSE estimation methodologies were employed in Asian countries. Using REM, FGLS, and PCSE estimation methods, the empirical data based on the three panel estimation methods shows that the variable of culture is statistically significant at 1%.

A nation will see an increase in foreign direct investment (FDI) if it can maintain cultural stability. After controlling for other variables, the empirical results obtained by applying the REM, FGLS, and PCSE estimating methods show that a 1% improvement in cultural stability may result in an increase in FDI inflow of 4.25, 5.93, and 4.81 percentage points, respectively.

Table: 3 Random effect model (REM), Feasible General least Squares method (FGLS) FGLS and Panels Corrected Standard Errors (PCSE) for the African Countries

FDI inflow	REM	FGLS	PCSE
Culture	0.0349* (0.210)	0.0455* (0.238)	0.0492* (0.319)
GDPPC	0.0283* (0.121)	0.0291* (0.142)	0.0255* (0.139)
RISK	-0.0276* (0.318)	-0.0416* (0.310)	-0.0491* (0.402)
OPEN	0.0182** (0.170)	0.0236** (0.169)	0.0318** (0.193)
INFLA	-0.0318* (0.217)	-0.0388* (0.203)	-0.0503* (0.341)
GSEP	0.0103** (0.190)	0.0291** (0.418)	0.0410** (0.433)
BURA	-0.0551* (0.320)	-0.0433* (0.439)	-0.0611* (0.683)
LAW	0.0236* (0.222)	0.0284* (0.203)	0.0319* (0.374)
DEMOC	0.0521** (0.282)	0.0564** (0.262)	0.0781** (0.294)
Constant	0.7073 (0.204)	0.8103 (0.267)	0.9520 (0.290)
Number of Observation	630	630	630
Wald chi 2 (8)	123.54	148.65	172.49
Prob > chi 2	0.0000	0.0000	0.0000

Table: 3 presents empirical evidence indicating that a 1% increase in cultural stability in African countries will result in an approximate 3.49, 4.55, and 4.92 percent increase in foreign direct investment (FDI) when using the three panel estimation models (REM, FGLS, and PCSE, respectively). This increase is significant at the 1% level.

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Table: 4 Random effect model (REM), Feasible General least Squares method (FGLS) FGLS and Panels Corrected Standard Errors (PCSE) for the European Countries

FDI inflow	REM	FGLS	PCSE
Culture	0.0218* (0.364)	0.0301* (0.211)	0.0418* (0.428)
GDPPC	0.0255* (0.173)	0.0382* (0.185)	0.0412* (0.213)
RISK	-0.0516* (0.295)	-0.0610* (0.329)	-0.0901* (0.627)
OPEN	0.0315** (0.201)	0.0348** (0.237)	0.0421** (0.286)
INFLA	-0.0414* (0.146)	-0.0528* (0.215)	-0.0891* (0.288)
GSEP	0.0217** (0.209)	0.0315** (0.221)	0.0901** (0.319)
BURA	-0.0711* (0.388)	-0.0610* (0.315)	-0.0762* (0.361)
LAW	0.0266* (0.272)	0.0321* (0.261)	0.0418* (0.289)
DEMOC	0.0311** (0.241)	0.0529** (0.277)	0.0611** (0.282)
Constant	0.8091 (0.417)	0.9122 (0.318)	0.1102 (0.610)
Number of Observation	630	630	630
Wald chi 2 (8)	188.23	145.32	186.13
Prob > chi 2	0.0000	0.0000	0.0000

Using the three mentioned panel estimation models—REM, FGLS, and PCSE—it is evident from the empirical evidence, table 6, that FDI will increase by approximately 2.18, 3.01, and 4.18 percent, respectively, by increasing 1% of cultural stability. This increase is also at a 1% significant level for European countries.

CONCLUSION

Utilizing data from 62 distinct nations between 2010 and 2023, we utilize diverse econometric techniques to ascertain the attributes and workings of cultural diversity that impact foreign direct investment. Due to cultural differences, the MNC was hesitant to use entry strategies like foreign direct investment to grow their firm. The different models show that, even though the host nations are getting closer to having an MNC-friendly climate, culture still has a big impact on optimizing the flow of foreign direct investment. Therefore, ensuring cultural stability is a responsibility for the nations that wish to increase their level of economic competitiveness and guarantee sustainable prosperity.

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